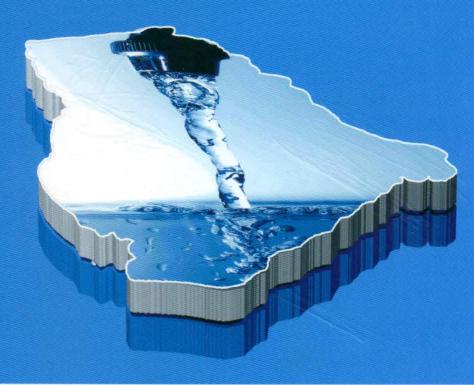
# **Managing Water in Ghana**

CDD-GHANA

A Political Economy of Change Analysis



No. 2

Prepared by the Ghana Center for Democratic Development (CDD-Ghana) and the Political Economy of Change Group The Political Economy of Change Group (PECG) was established through the joint efforts of the World Bank and CDD-Ghana. The group consists of personnel from the World Bank, CDD-Ghana and some distinguished Ghanaians from business, civil society and the academia.

The group meets periodically to discuss issues relevant to the political economy of Ghana. The meetings focus on specific areas of Ghana's Political Economy and the discussions are guided by leading experts in the specific area that is being discussed.



# **EXECUTIVE SUMMARY**

The paper discusses water sector reforms, particularly the separations of functions such as service delivery (centralized approach for urban water supply and decentralized approach for rural and small towns), economic regulation and water resources regulation. The discussion highlights the decision-making processes related to the management of the sector with respect to water tariff levels, role of water pricing, tariffs and subsidies.

Water sector reforms have led to improved institutional framework but there are challenges in implementing sustainable service partly due to political risk-taking by government and partly due to inadequate financial resources to operate and maintain the water supply systems. As a result, fundamental requirement for success such as transparency, accountability, customer orientation, competition (quasi) and efficient operation and maintenance are not yet adequately in place to drive sector performance. The key characteristics of the water sector and its implications on the role of government as well as the separation of functions; service delivery, economic and water resources regulation are addressed with some recommendations on some promising options for addressing these challenges.

# 1. CHARACTERISTICS OF WATER SECTOR AND THE ROLE OF GOVERNMENT

The water sector exhibits characteristics of a natural monopoly, private good, merit good and a basic need. The weight accorded the various attributes in a particular context governs the way water services are delivered.

#### 1.1 DRINKING WATER DELIVERY AS A NATURAL MONOPOLY

A natural monopoly occurs when economies of scale available in a production process are so large that the relevant market can best be served at least cost by a single firm (Baldwin and Cave, 1999). In the case of the drinking water sector, instead of having three drinking water companies laying separate networks where one would do, it may be more efficient to give one firm a monopoly subject to regulation of prices and quality of service. Where a natural monopoly occurs, the use of competition may be undesirable.

In such circumstances, the role of Government is required to ensure that the monopoly provider is efficient. In practice, the economies of scale phenomenon that gives rise to "natural monopolies" may affect only one part of a given process indicating that only the part which is a natural monopoly should be regulated and the rest left to the market forces (Baldwin and Cave, 1999). This is the case for the water supply sector as only some aspects of the service provision may be classified as a natural monopoly namely the retail distribution system (Dijk, 2003). It may therefore be argued that the other aspects of water supply provision, which are not a natural monopoly, could be left to the market. Also, the aspects that exhibit monopoly

characteristics could rather be competition for the market rather than competition in the market.

#### 1.2 DRINKING WATER AS A PUBLIC OR PRIVATE GOOD?

The basic criteria for assessing the degree to which a good or service is closer to being public than private pertains to excludability and substractability (WorldBank, 1993). Substractability occurs where one person's use or consumption of the good or service decreases or substracts from its value to others who use the same good or service. For public goods, there is no conventional consumption during use (zero subtractability), and the goods can continue to provide the same benefits to everyone, as long as there is no congestion. Excludability refers to the situation where the service provider is able to exclude potential users who are not willing to pay for services. When it is impossible or prohibitively expensive to exclude users the service becomes a public good. But when the price potential users can be prevented from benefiting from the service without paying the price, and no alternative way of free riding is available, the service becomes a private good. For drinking water supply, the levels of service are usually a house connection (in-house connection or yard connection) or a standpipe. In the case of excludability, users can easily be excluded for non-payment either through disconnection for house connection or "pay as you fetch" for a standpipe. Water use is also rivalry and hence water supply service could be considered as a private good.

### 1.3 DRINKING WATER AS A MERIT GOOD

Even though water supply services is considered a public good, some quantity, is required to ensure good public benefit. Water is needed for basic needs to ensure public health benefit that is considered as a merit good. Beyond this, individual consumers have other private concerns like washing of vehicles, watering gardens, and commercial ventures. A merit good is considered to have some intrinsic values and, which left to individual consumers, may not be consumed at the required levels but when readily available and consumed the long-term effects are positive for the economy and hence deserve public sector intervention. This merit good aspect has given water supply the recognition as an essential and a basic service (WSSCC, 2000). The merit good aspect is a justification for universal accessibility, which therefore nullifies the excludability argument and makes the service a public good (Schwartz, 2006).

This 'merit good' nature of water supply service delivery has wide political acceptance and this is the dominant reason for government subsidies. It is based on the premise that user fee alone cannot recover the cost of the service and that some consumers especially the poor cannot pay the full cost. In South Africa for instance,  $6m^3$  of water per month per household (based on 25 litre per person per day for a household size of 6) is provided at no direct cost to customers (Smith and Green, 2005). Most water utilities in developing countries charge a reduced tariff also known as social tariff or lifeline tariff for a specified amount of water to satisfy the merit good criteria. According to Berger (1998) the lifeline tariff band varies from 5 m<sup>3</sup>/month in Cote d'Ivoire, Cameroon and Gabon, to 20 m<sup>3</sup>/month in Sri-Lanka.

# 2.0 WATER SECTOR IN GHANA

### 2.1 WATER SECTOR REFORM IN GHANA

The Ghana Water and Sewerage Corporation (GWSC) established in 1965 by Act 310, was responsible for water supply in both rural and urban areas from 1965 to 1998. The experiences and lessons learnt after the International Water and Sanitation Decade informed the Government of Ghana (GoG) to reform the drinking water sector. At the beginning of the reforms, the rural population's access to safe drinking water was low (30%) and the supply-driven top down approach was seen as unsuitable for rapid expansion in coverage. In urban water supply, rapid urbanisation, old and dilapidated water infrastructure, poor management, high-levels of unaccounted-for-water, low tariffs and lack of investments, all combined to create the need for extensive reform. The reforms focused on the unbundling of the sector and introduction of market- style reforms and the necessary regulatory support frameworks.

With regard to the unbundling of the sector, management of urban water supply and that of rural and small towns were all bundled under the Ghana Water and sewerage Corporation. In addition, GWSC was responsible for managing its own water resources and was virtually self regulatory and they only required parliamentary approval for the tariffs. The unbundling of the sector led to hiving off management of rural and small town water supply from the GWSC, the establishment of regulatory services –the Water Resources Commission to be responsible for water resources, and the establishment of the Public Utitlites Regulatory Commission (PURC) to take up the responsibility of regulating urban water supply. The market- style reforms were commercialisation of service delivery by introducing cost recovery mechanisms,

public private partnerships for water service delivery and decentralisation of community water services. Two approaches for water supply delivery for urban and community supply were established:

- Urban water supply begun when the GWSC was converted into Ghana Water Company Limited (GWCL) to focus on urban areas and operate on commercial basis.
- Community Water Supply (CWS), which refers to water supply for rural and small towns, uses the Community Ownership and Management (COM) arrangement. CWS started when rural water department of GWSC was first transformed into Community Water and Sanitation Department of GWSC and then into an autonomous agency, Community Water and Sanitation Agency (CWSA). CWSA is a government agency with responsibility for facilitating (by providing guidelines and strategies) whilst the District Assemblies have the responsibility for providing water service delivery as part of the decentralisation process.

The regulatory frameworks established were for water resources management and water pricing through the following:

- establishment of the Public Utilities Regulatory Commission (PURC) to handle economic and quality of service regulation for urban water supply
- establishment of Water Resources Commission (WRC) to manage the water resources in Ghana.

The above reforms paved the way for Public Private Partnerships (PPP) in urban water supply and the small towns. The process of introducing PPPs started in 1994 with the intention of implementing the PPP in 1998 but the process delayed unduly

and a private operator for the urban water came on board in 2006. In the small towns, water supply under COM arrangement allows local private operators to partner some communities to operate and manage water systems.

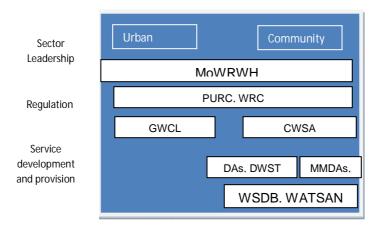
In the urban water supply sector the objective of the PPP was to improve and expand urban water service delivery. The PPP process started in 1994 with the Ghana Water Sector Restructuring Study that evaluated eight options and selected the lease option in 1995 as the best option. The Ministry of Water Resources Works and Housing (MWRWH) which is the ministry responsible for water, put in the necessary structures such as an Advisory Committee (AC) and a full-time Secretariat, the Water Sector Restructuring Secretariat (WSRS) (established in 1997), with responsibility for the implementation of the proposed public–private partnership project on a day-to-day basis. By 1999, the process was well advanced with four (4) pre-qualified operators who were about to bid and a transactions advisor in place to support the secretariat in the evaluation process.

Unfortunately, there was a new thinking which appeared to be from the ministry that a Build Operate Own and Transfer (BOOT) arrangement for some aspect would bring more benefit. The introduction of the BOOT to the reform process which had advanced to the bidding stage brought some differences between the government and the World Bank which was supporting the process particularly when it emerged that the government wanted to enter into a direct agreement with a company, Azurix, without any competitive bidding for the implementation of the BOOT. These differences contributed to the long delay in the implementation of the PPP.

Eventually, the Government agreed with the World Bank to adopt a management contract to replace both the BOOT and the lease. In principle the management contract was to obtain the services of a private company for a five year term to prepare the urban water company for a long term lease. After an international competitive bidding, a Dutch private operator, Vitens was selected in July 2005 to operate urban water supply with responsibility for the operation and maintenance of GWCL water supply system including managing GWCL operational staff, seconded to them for the duration of the management contract. Staff in GWCL headoffice remained with GWCL which retained the responsibility of being the asset holding company and responsible for capital investment in the development of the sector. The operator works under a management contract and is also responsible for production and sale of water supply.

Following the urban PPP in the water sector, there has been a number of PPPs in the form of management contracts between the District Assemblies and the private operator for small towns water supply system, under community ownership and management. These PPPs were triggered by the size and/or complexity of the water system. For example in the case of Bekwai, Atebubu and Mim, their systems were recommended for private operator partnership because of the size of the towns. Another reason in the case of the Atebubu water system was the complexity of the water system, which relies on surface water treatment and the use of rather old diesel generators.

- 2.2 INSTITUTIONAL AND POLICY FRAMEWORK FOR WATER SECTOR IN GHANA
  - 2..2.A ROLES AND ORGANIZATION IN THE SECTORS



The key organizations and their responsibilities in the water sector are shown below.

**MoWRWH** (Ministry of Water Resources, Works and Housing) is responsible for setting the water policies for the country – resource management, and supply of drinking water (both urban and rural).

**MoWRH** through its Water Directorate (not shown) oversees sector policy formulation and review, monitoring and evaluation of the activities of the agencies, and co-ordination of the activities of donors.

**MMDAs** (Metropolitan, Municipal and District Assemblies) are responsible for rural and small town water and sanitation delivery using the private sector for infrastructure delivery and communities or private operators for management. They have responsibility for preparation of District Water and Sanitation Plans. They also play roles as regulators, e.g. approving tariffs.

**DWST** (District Water and Sanitation Team) is a technical team located in individual District Assemblies to implement the District's water and sanitation programme. The Private Sector is responsible for the provision of goods and services.

**WSDBs** (Water and Sanitation Development Boards) is a local small town committees which are responsible for the management of small town water and sanitation facilities, while WATSAN Committees play the same role in rural communities.

**NDPC** (National Development Planning Commission, not shown) is the main body responsible for broad policy formulation on which basis ministries formulate their sectoral policies.

Within **PURC** (Public Utilities Regulatory Commission) is an independent body to undertake economic regulation for water (in addition to electricity and gas).

**WRC** (Water Resources Commission) is responsible for the regulation and management of the utilization of water resources.

**CWSA** (Community Water and Sanitation Agency) provides support to District Assemblies in promoting the development and sustainability of safe water and related sanitation services in rural communities and small towns.

**GWCL** (Ghana Water Company Limited) provides, distributes and conserves water for domestic, public and industrial purposes in urban communities.

**DEHO** (District Environmental Health Officers) educate communities on sanitation and hygiene and enforce regulations regarding the construction, use and management of public as well as institutional and household facilities.

In addition to the formal service providers, there are the informal providers in both the urban and rural communities. For the urban there are three (3) types of consumers, who receive their supply through providers who serve as intermediaries between the utility and the consumer. The supply chain, which is typical of the situation in Accra, identifies the principal water source as being that of GWCL. However because of the poor and inadequate distribution network and the insufficiency of supply, there are several intermediaries. Through these secondary and tertiary providers the tariff to the low income consumer who does not have access to the utility's mains, and who buys by the bucket, can be as much as 10 times what would have been paid for direct supply (Manu, 2002). There are the informal independent providers are found in the urban areas and provide services to the un-served and the under-served.

2.2.B NATIONAL WATER POLICY (NWP)

The National Water Policy (NWP), which was approved by Cabinet in 2007 provides a framework for the sustainable development of Ghana's water resources. The

overall goal of the NWP is to "achieve sustainable development, management and use of Ghana's water resources to improve health and livelihoods, reduce vulnerability while assuring good governance for present and future generations". The NWP targets all water users, water managers and practitioners, investors, decision-makers and policy makers within the central Governmental and decentralised structures, NGOs, and International Agencies. It also recognises the various cross-sectoral issues related to water-use and the links to other relevant sector policies such as those on sanitation, agriculture, transport, energy etc.

The NWP details the key policy issues related to the basic principles and challenges confronting the three sub-sectors of water resources management, urban water supply, and community water supply and sanitation. Some of the principles that provide the basis for policy direction for sustainable management, development and use of water in Ghana include the following:

- The principle of fundamental right of all people without discrimination to safe and adequate water to meet basic human needs
- The principle of meeting the social needs for water as a priority, while recognising the economic value of water and the goods and services it provides
- The principle of improving equity and gender sensitivity; and
- The principle of the greatest common good to society in prioritising nonconflicting uses of water

The policy measures and actions for increasing access to water are:

- Access to water in urban areas
- Ensuring that an equitable amount of investment resources are dedicated to

extending services to low-income communities

- prioritising new investments in system extensions and expansion of bulk water production based on well-established criteria that include health factors; and
- facilitating the definition of un-served zones and identifying cost-effective alternatives for progressively extending services to these areas

Access to water in communities:

- Promoting an equitable demand responsive approach where communities express demand by participating in making informed decisions on choices of services that fit their needs; and
- Supporting institutions responsible for providing information on ground-water occurrence and availability (quantity and quality)

The policy measures and actions related to tariffs, cost recovery and subsidies are:

- Ensuring that average water tariffs reflect the full efficient cost of water supply
- Adopting a tariff structure that provides an optimal benefit to consumers including low-income consumers

# 2.2.C WATER TARIFFS, SUBSIDIES AND COST RECOVERY

The Constitution of Ghana Article 35 (3) enjoins the state to promote just and reasonable access by all citizens to public facilities and services, which naturally include water supply services. Article 17 of the same constitution also allows for "different provision for different communities having regard to their special circumstances". This provision allows for the service providers to have appropriate mechanisms to serve all users.

The Act 310 that established the formal urban utility indicates that, the utility shall serve all inhabitants in its service area. For consumers/customers who receive services directly from the utility GWCL, the tariffs are regulated by PURC. The tariff is Increasing Block Tariff (IBT) with the first block being the lifeline or social tariff. The tariff is uniform for all urban areas. The first 20 m<sup>3</sup> of water consumed for each month attracts the lifeline tariff. The rational for the lifeline tariff is that it allows the water utility to provide lifeline to the poor at below-cost rate, and charge higher prices for use beyond this minimum volume (Boland & Whittington, 1998). Thus the IBT seeks to allow the poor access to water, promote public health and improve equity.

### 2.2.D SECTOR FINANCING

The water sector receives funding from three main sources: government, user contribution and development partners. The major source of finance for investment is from the development partners in the form of grants to the rural and small town subsector and mixed grant/commercial financing for the urban water subsector. The donor funding as a proportion of total sector finance has historically been increasing from 48% in 2006, 69% in 2007, 78% in 2008 and 2009, and 83% in 2010 (Waal, 2010). The financing for operations and minor maintenance is usually borne by the user fees for both urban and community water supply.

Both the urban water supply and community water supply have well developed investment plans, but there are insufficient mechanisms to ensure cost recovery, making sustainable financing of the sector plans a challenge. Furthermore, the link between the sector plan, programmes and projects are weak. Currently, a water sector strategic development plan is being developed against the backdrop of the "Ghana Compact: Sanitation and Water for All (SWA)" which was launched by the Vice President of Ghana.

The Sanitation and Water for All (SWA), formerly called "Global Framework for Action" is an international partnership of national governments, development partners and civil society organisations working together to galvanise political commitments to increase global access to sanitation and water. Ghana signed the SWA Compact, which establishes GoG's financial commitment to the sector. The compact underscores the commitment of GoG to make rapid progress to achieve the MDGs in sanitation and water and sustain efforts beyond 2015. Government has promised US \$ 350 million annually in the water and sanitation sector to be implemented through commitments in the annual sectoral budgets and approved recurrent budget can be monitored with respect to actual and timely releases.

# 3.0 POLITICAL ECONOMY OF THE WATER SECTOR IN GHANA

# 3.1 URBAN WATER SUPPLY MANAGEMENT

The main challenges of the urban water sector are lack of adequate funding to increase coverage to the unserved, poor cost recovery arrangements to ensure that existing services are sustained, negative political interference in the functioning of GWCL and PURC, inadequate autonomy of GWCL, poor accountability of GWCL to its clients and users, poor customer orientation and inadequate incentive systems to drive efficiency in the sector. These challenges are discussed from the following perspectives:

# Financing the urban water sector

GWCL has over the years suffered from inadequate investments to build new facilities and rehabilitate old ones to sustain and increase water supply. Thus increased funding is necessary to extend service and also keep existing services sustainable. The main sources of funding for the water sector are: Government of Ghana budgetary allocations, revenue from sale of water, and support from donor agencies. Donor funding as a proportion of total sector finance was as high as 83% in 2010 having grown from 48% in 2006. The funds from GWCL's own source, water revenue is not sufficient to cover cost because about 50 % of the water produced does not bring in revenue and not all the bills are collected.

According to Wall (2010) the utility attracted over US\$614m in grant and commercial funding between 2002 and 2008 and a further US\$185m worth of grant/commercial projects are ongoing with no significant impact on coverage, as coverage reduced

from 59% in 2003 to 55% in 2006, increasing to 58% in 2008. Again it is estimated that a shortfall of US\$54 million annually for investment through the tariff is needed if public financing does not increase to fill the gap between estimates investment requirement and anticipated public financing (Wall, 2010). The operating surplus of GWCL/AVRL in 2009 was US \$ 12 million (GWCL, 2009). Thus financing for the sub-sector activities has been much lower than required.

The Ghana compact promises substantial investment of US \$ 350 million annually for the sanitation and water sectors, which should ideally result in increased government financial allocation to the sector. The compact is a renewed political commitment to reverse the situation. What is required for stakeholders including civil society and development partners is to hold government accountable to the commitments made.

Discussion with stakeholders attributed the low political commitment to increased support from the development partners which makes government adamant. It was suggested by stakeholders that perhaps if support from development partners is withdrawn, government would sit up and pay proper attention to the water sector.

# Water pricing and tariffs

GWCL uses a uniform tariff structure for all customers throughout the country. Embedded in this tariff system is a cross subsidy intended to lower the cost of water for the poor. The tariff structure is an Increasing Block Tariff (IBT) for domestic users where the first block of 20m<sup>3</sup> per month is the lifeline, which is below cost. The argument for lifeline tariff is to make the services affordable so that the poor can access reasonable amounts to satisfy their basic needs. However, the main benefits of the lifeline tariff fail to reach the poor who need it most as most of them do not have direct access to water. Consumers without direct access to the network end up paying exorbitant prices up to 15 times the lifeline tariff.

With the urban water tariff structure, dwellers with a monthly household consumption of  $20m^3$  which is equivalent to consumption of 120 l/c/d (litres per capita per day), on the assumption of 5 persons per household, pay the lifeline tariff for all their water needs and receive substantial subsidy per household. The dwellers within consumption range are mostly the high income dwellers because of the relatively low number of persons per household and corresponding low consumption. On the other hand, low income consumers usually in tenement housing with many households in a house end up consuming 90 m<sup>3</sup>/month. This is equivalent to a consumption of 5 m<sup>3</sup>/month for each household, which means a consumption of 50 litres per person per day but the low income end up paying 21 % higher than the high income because of the tariff structure (Nyarko, 2007). Thus tariff structure for GWCL favours the household with meters and penalises multi-occupancy houses with collective meters. Consumers relying on the alternative service providers, who operate as informal enterprises where their water prices are not regulated but rather subject to the market forces pay very high prices ranging from 5 to 14 times the GWCL lifeline tariff. Also in the community, water sub-sector tariffs are higher than the urban tariffs but the service is more reliable.

The pricing structure is regressive. All the subsidies end up with the high income dwellers. When the lifeline tariff, which means the untargeted subsidy, is removed and the next tariff level is used, it will generate more revenue which could be used to extend services to the unserved customers. Alternatively, the lifeline block may be reduced from 20m<sup>3</sup> to 5m<sup>3</sup> for each month to reduce subsidies to the sector and enhance revenue. Discussions with stakeholders revealed their preference for the

option of reducing the lifeline block from 20m<sup>3</sup> which delivers fully subsidised urban water to only the high income.

### Autonomy and political interference of the urban utility

The level of organisation autonomy and the extent of political interferences in the sub-sector manifests in the appointment of top management and board. GWCL is a public service according to the 1992 Constitution of Ghana (GOG, 1992). As such, the Public Services Commission establishes terms and conditions of employment in the public service. The power to appoint a Chief Executive of the utility is vested in the President, acting in accordance with the advice of the governing council of the service concerned, and in consultation with the Public Service Commission (Larbi, 1998). In a similar way, the president can dismiss the Managing Director(s) (MD). Out of the five past Managing Directors (MD) for GWCL from 1987 to 2003, one retired on his own because of internal problems, another retired after serving his term, two were fired, and the last was appointed temporarily to act and he decided to hand over to the next most senior officer after 15 months (Nyarko, 2007). The tenure of office of the managing directors of GWSC/GWCL is a reflection of the low level of organisational autonomy as well as political interference. Since 2008 to date, the position of Managing Director has been an "acting" position as government does not appear to be making any effort at obtaining the services of a substantive Managing Director. The management of CWSA and Water Resources Commission is in a similar situation. This situation obviously undermines effective governance in the water sector.

The Board of Directors of GWCL provide immediate oversight of the management and exercise overall direction and control of GWCL on behalf of government under the guidance of the Minister of Works and Housing. The President of Ghana selects the Board members (8 people) with the exception of the GWCL workers representative (elected by the workers). The day-to-day running of GWCL, its business, administration and organisation is the responsibility of the Managing Director (MD). Thus the utility does not have sufficient autonomy to deliver sustainable service to all. Also with respect to accountability, the top management and the board will be more accountable to the political system than to the customers. GWCL though autonomous on paper is still subject to undue political interference that encourages the maintenance of the status quo, which is not sufficient to break through the performance ceiling. Political will and commitment is essential to give the utility the needed level of autonomy.

A number of options were suggested by stakeholders for reducing political interference, increasing autonomy and enhancing management efficiency in the urban water sector. These are:

- Breaking GWCL into 2-4 separate entities and using a yardstick or benchmarking to stimulate completion to drive performance
- Involving more than one private operator to increase responsibility beyond a management contract to improve the performance
- Introducing performance contract for GWCL top management

# Autonomy and political interference of the urban utility regulator

Political interference in the Urban Water Supply (UWS) manifests in tariffs (levels and timely increases). Prior to the establishment of PURC, GWSC was largely dependent on ministerial approval for tariffs. GWSC tariff proposals in 1978 were granted in 1981 at a time when the proposed tariff had become inadequate and the

1982 tariff proposal was finally approved in 1984 (Gyau-Boakye and Ampomah, 2004). The tariff increases from 1990 onwards were barely enough to match inflation levels (Figure 1). The influence of politics on water tariff levels is also indicated in Fig 1, where in 1996 and 2000 (election years) there were no tariff increases to even match inflation. On those occasions in 1996 and 2000, GWCL did not request for tariff increase, which suggests the decision could be politically motivated.

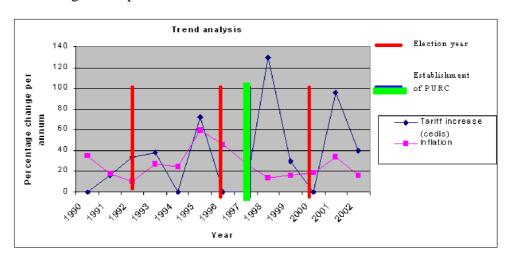


Fig 1: Comparison of tariff increase and inflation from 1990-2002

Source: Nyarko 2007

The establishment of PURC has reduced political interference in tariff setting to some extent. Now the tariff levels are much better than before. However, tariff setting still has political dimensions that cannot be ignored, given the high proportion of the population who are poor. There are speculations of government interference and undermining of the authority of the Commission that has led to the resignation of one of the chairmen of PURC. Government has also on two (2) occasions, absorbed the increases in tariffs, with the promise to make up the difference to the utilities, but

information available revealed that the promise was only partially met.

The PURC is supposed to be independent and autonomous and should be able to exercise their authority to ensure the achievement of universal services which is in line with their primary duty to protect consumers. However, PURC is struggling to deliver that mandate as there is no concrete plan in place that explains when and how universal services will be achieved. As mentioned already PURC has clear targets for the utility with respect to Non Revenue Water (NRW) and Bill Collection Efficiency (BCE). Failure of GWC to achieve the targets implies less funding for GWCL to deliver improved services and the ultimate losers are the consumers and not GWCL. There are no real incentives to motivate GWCL to achieve the targets. Again PURC promises to:

- Facilitate the formation of effective consumer associations to get consumer feedback to improve PURC's understanding of consumer issues
- Instruct urban water utilities to include pro-poor criteria when undertaking investments in water supply projects; and
- Direct state interventions in areas where there is a marked gap in service delivery

These plans are yet to be implemented.

This raises the question of the regulators' autonomy and effectiveness. Clear accountability mechanisms are needed for the consumers to demand accountability from the regulator. Clearly civil society has an important role to play in helping consumers demand accountability from the regulator.

#### Urban Water sector reforms – Public private partnership

In the case of the urban water sector reform, specifically the involvement of the private sectors in the management of the urban water service delivery the process was delayed unduly. The PPP process started in 1994 with the intention of engaging the private operator in 2008, the operators came on board in 2005. The delay in implementation was partly attributed to political interference in the PPP process (Nyarko, 2008). The original objectives of the PPP was for efficiency and improvement by ensuring transparency and accountability to users, private capital to reduce public sector borrowing, injection of commercial principles into the sector by the private sector and stimulating accountability and competition to improve utility performance (Nkrumah, 2004). However, as part of the PPP process, the option of enhanced lease with two private operators was changed to the existing arrangement of a management contract for an operator.

The nature of the existing arrangement of a management contract means that two key objectives of private investment and quasi-competition in introducing private sector cannot be achieved. The GWCL/AVRL management contract has not been able to solve the efficiency improvement objectives for indicators such as NRW and BCE. Unfortunately, improvement in NRW has not happened but BCE has improved. Notwithstanding more data and critical analysis of the contract are required for more understanding and a proper judgement of the role of management in Ghana. What is however clear is that the engagement and co-operation between GWCL and AVRL have been weak. Consumers remain dissatisfied with service.

### Customer orientation and Voice

The role of the customer/consumer in the decision making process and in demanding services is important for improving services. Unfortunately, customer voice and

empowerment as part of customer orientation is low, diffused and unorganized in Ghana. Water services are run with little input from the direct consumers. As a result, the level of accountability demanded by customers from GWCL is very limited and does not enhance performance significantly. One of the reasons is that the nature of appointment of the GWCL Chief Executive makes it more accountable to the political systems rather than the customers/consumers. PURC indicated its intention of forming customer service representatives in all GWCL supply areas (PURC 2005a). When these initiatives are implemented, customer involvement and empowerment would increase and contribute positively towards the development of the water supply sector. Stakeholders are of the view that civil society can help correct this imbalance of power through public education/mobilization and strategic media agenda setting.

#### 3.2 Community water supply management

The community water supply challenges are twofold. The first challenge is the investment required to provide water supply for those currently without access to safe water supply. The second challenge relates to the mechanisms and arrangement to ensure the availability of human and financial resources to sustain water services in the communities.

The community water sector has the capacity to convert investment into facilities when funding from development partners is available. This is understandable since the beginning of the sub-sector had a strong focus on the provision of facilities at a time when the coverage was very low. The financing formula for providing water facilities was initially based on community contribution of 5 %, District Assembly contribution of 5 % and the external support agencies contribution of 90 %. However, the community contribution has been abolished since 2008. The abolition of the community contribution raises issues such as: will communities continue to show the same commitment as they did when their contributions were part of the assets created;

- There was no sufficient consultation with sector actors before the abolition?
- The 5% financing gap created appears to have been transferred to the external support agencies. Thus ESA now contributes 95%
- The willingness and ability of most communities to pay the 5% contribution could have been used by government to get urban dwellers to pay more for water especially as the majority of the urban dwellers are receiving the subsidies for urban water supply. Clearly, most of the investment has come from the external support agencies and there are financing gaps to achieve government targets (Wall, 2010). The question is where will additional funding come from and when? The promise of more funding in the Ghana Compact of SWA is good news. However in 2009 when the government increased allocation to the community water sub-sector only 15% of the funds could be accessed to provide facilities (Wall, 2010).

For the second challenge (related to sustainability of the water services), the approach in use puts a lot of responsibility on the community in line with the community ownership and management concept. The policy is for the community to take responsibility for operations and minor maintenance. This means that the responsibility lies with the community structures namely the Water and Sanitation Committees (WATSAN) and the Water and Sanitation Development Boards (WSDBs) to ensure that facilities are well operated. However, the community management arrangement is not sufficient unless it is backed with strong facilitation, monitoring and regulation to ensure that the communities have the required technical and financial resources to carry out their roles with respect to operations and maintenance of the water facilities. The reality in practice is that some of the technical aspects related to the operations and minor maintenance are beyond the communities. At the same time the planning process for delivering sustainable water services is focused mainly on the provision of facilities without any planning and budgeting for repairs and rehabilitation of the water systems (Braimah et al, 2010). This is one of the missing gaps that has to be addressed. As a result, there are many cases of "wasted investment". For example, it is common to see communities with over US \$ 40,000 worth of investment in water facilities whilst all the inhabitants are using unsafe sources because of lack of about US \$ 100 to repair the hand pumps (WASHCost, 2010). Also related to this is the fact that the responsibility for replacement of equipment such as pumps is not very clear in the community water sub-sector. The responsibility seems to lie with either the community or the district assembly apparently, there's no budget line to address that. As a result there are significant levels of non-functional systems.

With respect to the sustainability of the services, there are a number of factors that adversely affect service delivery after the construction phase. Some of these factors are political economy for water service delivery. The level of decentralisation achieved in Ghana currently does not encourage political interference from the national level in community water supply under community ownership and management. However, there are some socio-political dimensions that hinders performance, which are related to the local political interference related to the tariff reviews, tenure of the WSDBs, payment of institutional bills, conflicts between WSDBs and district assemblies.

In the area of tariff reviews, there are cases where DAs are reluctant to increase tariffs even when the community members have agreed to the increases in accordance with the rules of community ownership and management (Nyarko, 2007; Owusu, 2009). The reasons given for not approving the tariffs are that, the users cannot pay and this will make the political heads unpopular.

There are problems related to delayed payments of institutional bills, which represents water consumed by government institutions (including decentralised institutions, health units, security services, schools, departments and agencies). The bills are paid by the central government and it takes time (about a year) for payment to be effected.

The tenure of the WSDBs also creates problems in some cases. This is particularly so after national elections where rampant change of WSDBs occur prematurely. Thus, WSDBs are not allowed to serve their term of office in full in some cases. Conflicts between the DAs and the WSDBs related to dissolution of the WSDBs by the DAs are common. Some of these have resulted in court suits to oppose the dissolutions. These conflicts usually increase after a change in government.

#### CONCLUSIONS AND RECOMMENDATIONS

The water sector reforms have led to some improvement particularly in the institutional framework but are clearly not sufficient to solve the sector challenges. The requirement for improved sector performance such as transparency, accountability, customer orientation and competition (quasi) are not yet adequately in place to drive sector performance. Government has not provided the needed reforms in the sector because of political risk-taking. Consequently, maintaining the status quo, the sector business scenario cannot break through the performance ceiling to deliver sustainable services to all inhabitants. Therefore a new approach is needed for the sector to deliver improved services.

In the urban water sector, the management contract has not been sufficient to accelerate services to the un-served and maintain service for those currently served. Clearly, a new approach is needed to deliver improved services to the urban inhabitants. First

the existing tariff structure could be modified to eliminate or reduce the untargeted subsidy; the lifeline could result in increased revenue that can contribute in extending services to the un-served. Secondly, there are promising options that could be further analysed and implemented. These are:

- Breaking GWCL into 2 to 4 autonomous units. This could facilitate the use of comparative competition to drive performance, reduce the level of political interference and make the performance contract effective
- Separate GWCL into two companies:
  - $\sqrt{}$  Water production company to sell bulk water to the distribution companies
  - $\sqrt{}$  Water distribution companies
- Private participation to insulate the water agencies from undue political interference. GWCL could lease the management of the systems to at least two private operators without sacrificing the necessary social safeguards.
- The other fact is that private participation in the water sector is already a reality (private water tankers). The present challenge is finding ways to harness that indigenous entrepreneurial energy to realize the national goal of affordable and reliable water for all.

In the community, sub-sector significant increase in water coverage has been achieved but more investment is still needed to cover the un-served. Furthermore, mechanisms to ensure that facilities already provided continue to deliver water service remains a challenge. Therefore, increased government allocation for investment in the sector will contribute positively. In addition, there is the need for strong facilitation, monitoring and regulation to ensure that the communities have the technical and financial resources to carry out their roles with respect to operations and maintenance of the water facilities.

Civil society could also support by helping consumers to demand accountability from the key actors. Civil society groups would have to do more to ensure that the inequities of water distribution become front page issues in the national discourse.

The discussion has revealed that, water sector reforms have led to an improved institutional framework but challenges remain in delivering sustainable service partly due to political risk-taking by government. Political interference reflects on tariff levels and timely increases and appointment of top management which adversely affects the water sector. As a result, the fundamental requirement for improved sector performance such as transparency, accountability, customer orientation and competition (quasi) are not yet adequately in place to drive sector performance. Therefore, a new approach is needed for the sector to deliver improved services.

# REFERENCES

Baldwin, R. and Cave, M. (1999) Understanding Regulation: Theory, Strategy and Practice Oxford University Press, 1999.

Berger, L. (1998) 'Increased Private Sector Participation in Urban Water Sector. Republic of Ghana-Final Business Framework report'. Louis Berger SA March, 1998.

Boland, J. J. and Whittington D (1998) The political economy of increasing block tariffs in developing countries. paper presented at the World Bank Sponsored Workshop on Political Economy of Water Pricing Implementation, Washington, DC, November 3–5, 1998.

Braimah, I., Nyarko, K.B., and Moriarty, P(2010) The Use of Cost Information in Planning and Decision Making in Rural Water and Sanitation Service Delivery in Ghana. IRC Symposium 2010 Pumps, Pipes and Promises, The Hague, the Netherlands.

Dijk, M. P van (2003) Liberalisation of Drinking Water in Europe and Developing Countries. Inaugural Address. UNESCO-IHE 2003.

GoG (1992) Constitution of Ghana. Government of Ghana: Government Printer, Assembly press, Accra, 1992.

Gyau-Boakye, P. and Ampomah, B. Y (2004) The study of water pricing in Ghana. UAWS Congress, Accra, Feb 2004.

GWCL (2000) Tariff Adjustment Proposal. Ghana Water Company Limited, Accra Ghana, Dec 2000.

GWCL (2009) Annual report. Ghana Water Company Limited, Accra Ghana.

Larbi, GA (1998) Management Decentralisation in Practice: A comparison of public health and water services in Ghana. In: M. Minogue, C. Polidano, D. Hulme, Cheltenham, Edward Elgar (Eds.): Beyond the New Public Management: Changing Ideas and Practices in Governance.

Manu. K, S. (2002) Developing Arrangements for the Provision of Service for Low Income Households, DfID/ Ministry of works and Housing, 2002.

Nkrumah, E (2004) Institutional reform in the water sector management: The case of Ghana. Paper presented at the Union of African Water Supplies (UAWS) Congress, Accra, Ghana.

Nyarko, K. B (2008) "Private Sector Involvement in drinking water supply in Ghana" Int. J. Of Water, Vol. 4, No 3 and 4 pp 197-215.

Nyarko, K. B. (2007) *Drinking Water Sector in Ghana: Drivers for performance*, PhD Dissertation, UNESCO – IHE Delft, the Netherlands

Owusu, P.A. (2009) Partnerships in Small Towns' Water Service Delivery in Ghana, MSc thesis

PURC. (2005a) 'PURC: Social Policy and Strategy for Water Regulation. Public Utilities Regulatory Commission.

PURC. (2005b) 'Review of the performance of Ghana Water Company Limited (1998-2003), Public Utilities Regulatory Commission, Ghana.

Schwartz, K (2006) An Assessment of bureaucratic and New Public Management models in the water and sanitation sectors in low and middle-income countries. PhD thesis UNESCO-IHE 2006.

Smith, J. A. and Green, J. M (2005) Free basic water in Msunduzi, KwaZulu-Natal: is it making a difference to the lives of low-income households? *Water Policy* (2005) 443–467.

WAAL, D. de (2010) Water supply and sanitation in Ghana: turning finance into services for 2015 and beyond. An AMCOW Country Status Overview by the World Bank administered Water and Sanitation Programme (WSP) in collaboration with the African Development Bank (AfDB), the United Nations Children's Fund (UNICEF), the World Bank and the World Health Organisation (WHO).

World Bank (1993) Water Resources Management. A World Bank policy paper. Washington, DC, 1993.

WSSCC (2000) Vision 21: A shared Vision for hygiene, Sanitation and Water Supply and a Framework for Action. Water Supply and Sanitation Collaborative Council, Geneva, 2000.

WASHCost (2010) Water Sanitation and Hygiene service Cost and Services in Grushie Zongo in East Gonja District, Ghana. WASHCost community report.