

## **Challenges of regulating utilities in Ghana: A case study of the Ghana water company limited (GWCL)**

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### **Abstract**

This study examines the challenges of regulating utilities in Ghana. A survey of 35 households from the study area, coupled with information from officials from the GWCL and PURC have revealed that illegal connections and continuous unplanned developments have resulted in scarcity of water in the study area. The study further indicated that the poor enforcement of laws and contract biases on the part of Government and lack of political democracy and well-functioning political institutions increased the uncertainty of future regulators. Government involvement in regulation and service delivery is not much seen since it has not contributed significantly to infrastructural development in the last ten years. The government has however, been positive in the provision of funds for capital projects. Protracted water crisis in the study areas was found to have led to very high prices of water from the local vendors; putting more socioeconomic burden on the people.

**Keywords:** challenges, Ghana, regulatory, utilities

### **1. Introduction**

A major aspect of the economic reforms that took place in developing countries in the last two decades was the increasing withdrawal of the public sector from the direct production of goods and services. The introduction of private involvement in the public sector necessitated the setting up of independent institutions to oversee and ensure competition, efficiency, affordable pricing and quality of services. These institutions were formed as part of the reforms within the public sector and mandated to perform functions that include policy-making, commercial operations and regulations. Regulation has however become the key word in most developing countries over the period in their bid to attract investments into their inefficiently run public sectors. Unfortunately, in many cases, regulatory institutions have been hastily set-up in order to satisfy the requirements of donors that have been approached to inject new capital into the facilities, and also to deal with the outcry from consumers, either in protest against a particular reform condition or against increases in prices by producers of services considered to be a right for all citizens. In Ghana, the Public Utilities Regulatory Commission (PURC) was quickly set-up by government to deal with tariff issues. The Electricity Company of Ghana (ECG) and Volta River Authority (VRA) announced a 300% increase in electricity prices in 1997 in the course of the power sector reforms. Electricity consumers protested and refused to pay the new price set by the producers, insisting the price was exorbitant and that the average Ghanaian could not afford it. The Government of Ghana (GoG) stepped in to resolve the controversy by first suspending the new prices and then setting up PURC to find suitable prices for utilities (Aryeetey and Ahene, 2005) [2]. The Public Utilities Regulatory Commission (PURC) was formed under the Public Regulatory Act (Act 538) in 1997 to regulate and oversee the provision of utility services in Ghana.

Generally, the Commission seeks to protect the interest of consumers and providers of utilities; monitor standards of performance for provision of utilities; initiate and conduct investigations into standards of quality of service given to consumers. The commission also gives guidelines for fixing the rates of utilities and seeks compensation for consumers. PURC has a mandate to make regulations for and ensure efficient services of the Ghana Water Company Limited, Private Water Providers including Tanker Services Association, and Electricity Company of Ghana in conjunction with the Energy Commission. As part of its regulatory activities, PURC also participates and monitors the reform processes of both water and electricity in the country. PURC is however a centrally located institution with regional branches dealing only with urban utility services and not rural and small town systems which is managed by the districts and communities. It is therefore the priority of this research to identify the loopholes in the system to know how best to tackle it amicably.

### **2. Literature Review**

The organisation for Economic Co-operation and Development, OECD (1995) [3] defines regulation as “legal instruments by which governing institutions at all levels of government impose obligations or constraints on private sector behavior. It is also a rule, order or standard adopted by any state agency to implement, interpret or make specific the law enforced or administered by it or to govern its procedure”. Utilities are sensitive essential public services that operate under a unique public franchise obligation. Providers of these services have exclusive franchise through licensing; obligation to serve on a no-discriminatory basis; necessity of service to the public; and normally tends to be natural monopolist. Natural monopolies have economies of scale and large entry and exist costs, implying, one producer can supply a market at

a lower cost than could two or more. Utilities having these characteristics usually operate in market failure conditions, where producers could abuse market power and consumers would be unable to make alternative choices due to lack of information and competition.

Based on the above-mentioned features, utility services are normally provided by governments in order to avoid monopolistic pricing, reduce or prevent market failure as well as ensure social welfare. Most economists initially endorsed public ownership of natural monopolies as a solution to imperfect competition, incomplete information and incomplete contracts (Berthelemy *et al.* 2004) <sup>[3]</sup>. However, most governments especially in developing countries are seen to be operating utility services inefficiently by setting uneconomic prices, employing obsolete technology and infrastructure, and have poor management in apathetic environments, thus belying the status of a panacea to overcome market failure. Sheshinski and Lopez-Calva, (1998), also observed that, public ownership could lead to substantial efficiency losses, overcoming the gains obtained by resolving the issue of market failure. Failure of governments to efficiently operate public utilities has led to the prompting of private involvement but subjected to a credible regulatory framework backed by a strong political commitment. The framework includes price setting, quality and efficient delivery of services as well as guidelines for private investments.

The main objectives in regulating utilities are to reduce or manage the risk associated with market failure, to achieve certain social objectives such as providing services in remote areas and reducing risks to public health and safety (The Office of Water Regulation, 1999) <sup>[14]</sup>. Investments in utilities usually tend to be long-term, thus a good regulation is an important incentive and a source of guarantee for investors (ILO, 1999) <sup>[6]</sup>. A well-established regulatory framework gives investors incentives to improve efficiency, which could have a key influence over the rest of the economy through improved production processes and reduced user costs, especially in utility service delivery (Berthelemy *et al.* 2004) <sup>[3]</sup>. Regulatory framework remains a key determinant of access and quality improvements of utilities. Regulating utilities would thus provide benefits in the society as in market situations where there are choices and competition, provided the cost of regulation does not outweigh its benefits (The Office of Water Regulation, 1999) <sup>[14]</sup>. The regulatory framework in general and the utilities in particular should endeavour to achieve the harmonization of a number of different objectives concerning the profitability of the operator, the continuity and quality of the general interest services provided, compliance with commitments entered into, the implementation of the necessary infrastructure investment, the management of externalities and environmental concerns, for example, pollution of water sources, over-pumping of groundwater, and the need for flexibility to allow adjustments to be made as and when required (ILO, 1999) <sup>[6]</sup>.

### 3. Data and Methods

To be able to achieve the stated objectives of this study, a number of relevant research instruments and methods, which included primary and secondary data collection, were

employed. These were done through the use of structured questionnaires to the sample population and the officials of both GWCL and PURC in addition to field observation, informal interview, telephone interview and email data collection. Secondary information was also collected from the internet, journals as well as other published and unpublished documents. A simple random sampling approach was adopted for this important research. This method was considered more appropriate for this study because it allows respondents to be selected across the target population and therefore has the tendency of reducing personal prejudice in the selection of respondents. The population for the study consisted of consumers, service provider (GWCL) and regulatory institution (PURC). A total of fifty (50) people were randomly selected and questioned. Two types of questionnaires which contained both close and open ended questions were used. The Statistical Package for Social Sciences (SPSS) was used in analyzing and interpreting the data collected for the study. The data was analysed and presented descriptively.

## 4. Analysis and Discussion of Findings

### 4.1 Levels of Availability of Water

The availability of water in Accra depends upon the regularity and the adequacy of supply from the study, it was revealed that 86.7% have pipes connected to their homes which supply them with water whereas 13.3% of them do not have pipes in their homes. This means that they depend on other sources such as boreholes, supply by tankers and so on. Frequency of flow of water has been a major concern for the inhabitants of Accra. The results indicated that for most of the households, water flows mainly 3 days maximum of 4 days in a week. As indicated in the figure 4.2 below, 60% of those interviewed mentioned 3 to 4 days as the main days that water flows from the taps. This means that the flow of water for most of the people interviewed were not as bad as thought except for few people who felt that things are still bad and need improvement as compared to the previous days. Due to the number of days in which water flows, majority (73%) of the respondents felt that the water they fetch was sufficient to meet their household requirements although the water does not flow in all the days. 27% on the other hand disagreed with that assertion and said that the water available to them is not sufficient to meet their household requirements.

For a place like North Teshie, one tiresome thing about the search for water in the area is that the particular hour of the start of flow of the water taps is not known during the days that water runs. Yet the assurance is that it will certainly flow on any hour of the designated days that water runs during the week. For this reason, people queue with their containers for water from any tap nearest to them, then get back to their dwellings to wait whilst doing other things. Immediately the water starts to flow, children who are still waiting near the taps shout in the local language “nsuo na baooo!!!!” which literary means “the water has arrived!!!!” Then people run from all directions to stand by their containers already in the queue to wait for their turn to fetch. When they were asked of the average distances travelled to fetch water, 13% said they travelled below 50 metres, 7% travelled between 50 to 100 metres whilst 7% travelled between 101 to 200 metres before fetching water for their households. 73% never travelled any

distance for water because they have hope in the flow of water and also some of them have reservoir in the form of polytanks or concrete tanks which are used to store water for long periods of time, at least more than one week. The households are billed according the litres of water used per month. The issue of water tariffs was however a controversial one in the study area. Whilst some people believed that they are being cheated by the utility company, others are enjoying under-billing. It was very difficult to get the correct bills from the households. This is because some may have illegal connections, others may be under billed whilst the rest said their bills were either irregular or the last bill was so many months ago. In spite of these, majority of the people paid bills between Twenty to Fifty Ghana Cedis (GH¢20 – GH¢50) per month.

When they were asked of the preferred cost of a bucket of water for an average urban dweller, a large majority (73%) of the respondents were in favour of 10 – 30 pesewas. This is however distantly followed by 20% who supported 40 – 60 pesewas and then just a few 7% of them who stood for 70pesewas to GH¢1 per bucket. Issues of water supply in the study area are many. The itemized list in table 4.1 was presented to the households to indicate their rankings. The respondents were asked to rank the issues in terms of severe problem, minor problem, not a problem, 40% of the respondents thought water issues slow down domestic and commercial activities. 34% asserts that too much time is wasted in search of water due to water problems. Another 40% also felt that it creates a risk in drinking of untreated water from open wells or surface waters. 34% said children risk their lives crossing roads in search of water but only 20% agreed that children usually are either late to or absent from school is a major cause. For the minor issues, 53% of the respondents thought water issues slow down domestic and commercial activities. 33% asserts that too much time is wasted in search of water due to water problems. 13% also felt that it create a risk in drinking of untreated water from open wells or surface waters. Another 13% said children risk their lives crossing roads in search of water while 26% responded that children usually are either late to or absent from school. In spite of the severe and minor issues raised above, 53% of the respondents felt that children risking their lives in search of water are not a problem. This was followed closely by 47% who think that risk in drinking of untreated water from open wells or water surface is not a problem. 46% also felt that water issues cannot be a problem for a child to go to school late. 33% was of the view that too much time is not wasted in search for water. Only 7% though saw that water issues slowing down domestic and commercial activities are not a problem.

When the officials of the GWCL were interviewed on the issue, the four major causes of water supply problems in the area were mentioned as illegal connections; the lack of financial support from the company to carry out maintenance and expansion work on their system; fast expansion of the township and the springing up of industries in the area that use a lot of water. They believed the possible minor causes might be; frequent broken down of the pipelines and electricity outage problems. According to them, lack of expertise from the company to handle the pumps could not be causes of the

water problems. Out of the ten respondents from both organisations, 78% of them agreed that a major possible cause of water problem is as a result of the unplanned township/community. On the same front, 78% also said that it may be attributed to the few pipe lines that cannot support the fast expansion of township. None of the respondents from both organisations considered GWCL lack technical expertise to handle the pumps to be a major cause with 67%, especially from the GWCL claiming that it is not a cause and 22% saying that they do not even know whether it is a cause. Also, 56% of the respondents felt that, frequent broken down of pipe lines is a minor cause with majority, as much as 67% also saying that illegal connections is a minor cause.

On the issues of regulation, five people each from both GWCL and PURC were questioned on various issues and 67% of the respondents with majority from the GWCL agreed that GWCL involves the PURC in discussing water supply and delivery issues. 22% also revealed that they do not know whether there has been some involvement and 11% also claimed that there has not been any involvement of PURC in discussing water supply and delivery issues. On whether involving the PURC by the GWCL is helpful in solving some of the water supply problems in Accra, a lot of the respondents from both ends and especially from the PURC, agreed that such involvement is helpful (78%) while only 22% believed that such involvement is of no relevance and that GWCL will be better off without the involvement of PURC in its operations. One very important issue that could not be left out in such a discourse is the issue of whether water bills should be increased in order to improve water supply and delivery services. It was however not surprising when all the respondents from GWCL agreed that, that is laudable as far as the improvement of water supply and delivery services are concerned. 30% of the people from PURC on the other hand disagreed, claiming that improved services is not as a result of only price increase but a lot of factors come to play to make that happen. 11% though did not know whether an increase in the bills can improve water supply and delivery services.

### **Causes of the Challenges of Utility Regulation**

There are numerous causes of the challenges of utility regulation in Accra. The list of table 4.6 was presented to the management of GWCL and PURC to indicate their rankings. 100% of the respondents agreed that poor enforcement of laws and contract biases constituted a major cause of the challenges of utility regulation. On the same front, 56% felt that poverty levels cause people to indulge in corrupt practices is also a major cause. Another 56% of the respondents were of the view that penalties to be imposed on offenders of regulatory outlines are weak and therefore constitute a major cause. Only 11% were bold enough to accept that GWCL do not provide up-to-date accounting and auditing systems and that becomes a major cause. Lack of political democracy and well-functioning political institutions increases the uncertainty of future regulators was welcomed by 56% of the respondents as a major cause. Also, 67% of the respondents claimed that GWCL do not provide up-to-date accounting and auditing systems is not a cause with another 22% accepting that they do not know whether that is a cause of the challenges of utility regulation. 44% also felt that poverty levels cause people to

indulge in corrupt practices is a minor cause. 22% further disclosed that, penalties to be imposed on offenders of regulatory outlines are weak is a minor cause with another 22% saying it is not a cause. Addressing the challenges of utility regulation will ensure that services provided will not marginalize a section of the society especially the poor. When asked whether successive managements of both GWCL and PURC have done enough to address the challenges, none of the respondents said YES with as much as 78% saying NO and that there is still more to be done to address the challenges. 22% though did not know whether GWCL and PURC have done enough to address the challenges.

Many of the people who said NO gave their suggestions on the areas they felt management could have addressed. The Principal Engineer (Operations) of the GWCL felt that there was the need to ensure good database/record and monitoring. The Acting Chief Manager (Commercial), also thinks that there should be a rigorous education campaign for the customers, consumers and the general public to pay their bills promptly and stop tempering with installations to cheat. There were other views from both ends on the enforcement of laws and the award of contracts based on merit.

### Government's Involvement

The role of Government in every sector of the economy is significant as every policy by the government, can have a positive or negative impact on the overall operations of the organisation. During the research, the managements of both PURC and GWCL conceded that the government plays a very important role in their operations. The issue was however, whether the involvement of government on their operations is a positive or negative one. On the negative side, some of the respondents were of the view that, the involvement of government is not much seen since it has not contributed significantly to infrastructural development over the years. Others also felt that the government's involvement has produced a negative effect as it has compromised quality of leadership for political reasons. On the same front, many people from the GWCL reacted that there is much interference on the part of government with policy directions of the company. For instance, government institutions may have their payments done after a very long time. The problem is that disconnecting such institutions is difficult. For example, hospitals, universities, second cycle schools and others. So far it may look as if the involvement of government in the operations of the regulatory institution and the serve provider are only negative. This is far from right as some identified that government has been at the forefront in the provision of funds for capital projects. Others also think that government plays an advisory role and monitors their activities.

Finally, on what can be done to overcome the challenges of regulating utilities in Ghana to improve water supply in Accra, some of the respondents think that improving the infrastructural base and good records keeping may serve as a remedy. For others, the government should refrain from the daily interference of the organisations' activities and rather provide regular investment. Many also felt that the company must be customer oriented. Many people from the GWCL claimed that there should be an increased tariff so that there will be sufficient funds for infrastructural development. Many

also advised that there should be public education to encourage prompt payment of bills and also discourage wastage of water so that correct billing of use of water would be encouraged.

### 5. Conclusion

Ghana is quite new to the business of regulations and as seen from the challenges stated above, a lot of attention needs to be given to the institutions in order for them to achieve their objectives. First of all, regulations and procedures of regulation should be made simpler so it would be generally understood by all stakeholders. Companies in the utility service deliveries should be allowed to decide how best they could achieve the set objectives, given the rules or laws set by the regulatory institutions. The legal framework of the regulatory institutions should be one that promotes competition, thus consumers would be able to make rational and informed choices which would encourage innovation, growth and improve the operational performance of service providers. The regulator has to achieve its objectives without compromising the labour, health and environmental standards of the society.

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