

# Regulating Public and Private Partnerships for the Poor



## REGULATING PUBLIC PROVIDER: Accra & Kumasi

Ghana's public provider of urban water services has been the subject of continual public sector reform since early structural adjustment reforms began in Sub-Saharan Africa. The progression towards private-sector involvement continues to be hotly debated. The independent regulator, responsible for economic and service quality regulation, was formed as part of a move to attract international investment and protect the interests of the utility customer. The urban poor of Ghana rely on vendors or tankers who charge from 3 to 15 times the normal utility price. Low-income, multi-occupancy tenement housing, or "compounds" make up 70% of the housing in urban areas. The poor and vulnerable live in slums or illegal / unplanned areas that lack any basic infrastructure.

*"PURC is committed to the development and delivery of the highest quality of utility services to all consumers and potential customers."*

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Case Study:  
**GHANA**

## KEY FACTS

**Population**  
20.5 million

**Urban population**  
45%

**GDP per capita 2002**  
US\$ 2,130

**HDI rank**  
131/177

**Population living < \$2 / day**  
78.5%

**Exchange rate**  
\$1 = 9,000 cedis

**Urban household water connections**  
50%

**Urban improved sanitation**  
74%

**Water Poverty Index**  
45.3

## Study city

Accra and Kumasi

## Population

1,700,000 and 700,000

## Regulator

Public Utilities Regulatory  
Commission (PURC)

## Service Provider

Ghana Water Company Limited  
(GWCL)

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## Research Summary

Incentive based, economic regulation of monopoly water and sanitation providers is a powerful tool for improving services. Regulators determine the maximum water price ('price cap') to finance a desired level of outputs. Prices in high-income countries have tended to increase faster than inflation as society demands higher standards. The total revenue requirement (from which the price cap is derived) is determined by adding anticipated operating expenditure to planned capital expenditure (for capital maintenance as well as for improvements in quality, security of supply, service standards and service extensions), plus an acceptable cost of capital. Both opex and capex plans include efficiency targets derived from comparisons between a number of providers. Water companies are allowed to retain any further efficiency savings achieved within the price cap for a period (five years for example), an incentive to achieve even higher efficiency, before the benefits are shared with customers in reduced prices for the future.

This model has been adapted around the world with varying degrees of success, usually in the context of a Public Private Partnership, but until recently it has tended to be reactive rather than proactive regarding early service to the poor. There is now a recognised need for adequate economic regulation of public providers, as well as private companies, in lower-income countries, to deliver similar mechanisms for financeability and efficiency and as a prerequisite for developing effective pro-poor urban services.

The purpose of this DFID research project is to give water regulators the necessary technical, social, financial, economic and legal tools to require the direct providers to work under a *Universal Service Obligation*, to ensure service to the poorest, even in informal, unplanned and illegal areas, acknowledging the techniques of service and pricing differentiation to meet demand.

Looking to achieve early universal service, the research also considers how the role of small scale, *alternative providers* can be recognised in the regulatory process. *Customer involvement*, at an appropriate level, is seen as the third key aspect. The research investigates mechanisms for poor customers, and most importantly potential poor customers, to achieve a valid input to regulatory decision-making to achieve better watsan services within the context of social empowerment and sustainable



# The Water Sector and Institutional Framework

The state-owned Ghana Water Company Limited (GWCL) is the lead organisation responsible for urban water supply, currently operating 82 urban systems serving a population of about 8.2 million. GWCL is under the oversight of the Ministry of Works and Housing (MWH), which is responsible for water policy formulation and also provides oversight of GWCL's activities (fig. bottom of page). Recent data suggests that GWCL has 60 staff per 1000 connections and 60% non revenue water. Average tariffs have risen from \$0.20 in 1998 to \$0.56 in 2004 with a resulting estimated improvement in the operating ratio from 1.6 in 2000 to 0.9 in 2004 with urban water connections coverage at 50%.

The Water Resources Commission (WRC) is responsible for the regulation and management of all water resources. It is responsible for water allocation and granting of water rights, particularly for GWCL which pays WRC for the raw water it uses.

The Ministry of Finance (MoF) is responsible for negotiation and approval of credit facilities (loans) in the water supply and sanitation sector. The Environmental Protection Agency (EPA), under the Ministry of Science and Environment (MSE) is charged with environmental regulation. The EPA ensures that human activities do not pollute the environment.

The independent regulator since 1997, the Public Utilities Regulatory Commission (PURC), provides the economic and quality of service regulation for the sector. It operates alongside the State Enterprise Commission (SEC) which is responsible for regulating all state-owned enterprises including GWCL with whom SEC signed performance contracts since its establishment in 1989.

The key tasks and responsibilities of PURC, the regulator, are to:

- Provide guidelines for rates to be charged for the provision of utility services
- Protect the interest of consumers and providers of the



utility services

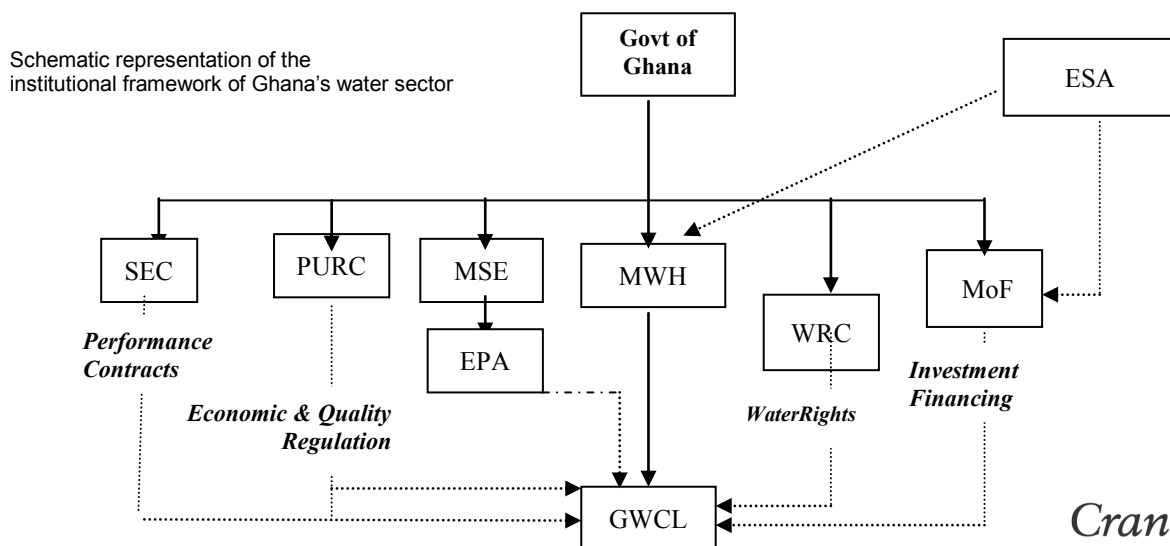
- Examine and approve water rates
- Monitor and enforce standards of performance for provision of utility services
- Promote fair competition among public utilities
- Receive and investigate complaints and settle disputes between consumers and public utilities
- Initiate and conduct investigation into standards of service quality given to consumers

Under Section 4 of the Act 538 1997, PURC is an independent body and is not subjected to direction or control of any authority in the performance of its functions. It operates by setting performance targets linked to incentives/disincentives. and tariff levels are set against achieving a number of agreed targets.

PURC has been funded directly by the Government but there have been attempts to replace that source with a regulatory charge to ensure continuing independence in regulation.

In its 'Social Policy and Strategy for Water Regulation' (February, 2005) PURC states its Vision "To become a model institution which ensures the delivery of the highest quality services to all consumers at fair prices."

Some see GWCL as 'very hostile to PURC—seeing them as a biased referee'. PURC has reportedly not





# Service to the Poor and USO

The Ministry of Works and Housing sees the achievement of USO as its mandate. For the regulator PURC, the achievement of USO as a primary duty is not so easily acknowledged even though it is seen as an important goal. They currently have no working definition for universal service obligation nor explicit strategies with key milestones to ensure its early achievement; there are no incentive mechanisms for the parties, the regulator and the service providers, to drive service delivery to everyone; and there are no guidelines or strategies to ensure its achievement in general and especially for the urban poor.

They do however now have a Social Policy and Strategy for Water Regulation which has a 'working definition of the urban poor as those (i) without direct access to regulated pipe supplies, (ii) who depend on secondary and tertiary suppliers and (iii) who buy by the bucket.' Although not in the legislation PURC sees itself as having 'a primary concern to address the interests of the poor.'

While GWCL is required to submit its investment and asset management plans to PURC, they are not in any way linked to a specific requirement to serve a number of the urban poor. Even though the utility acknowledges this importance, their view is a common one: that the current tariff levels are set too low and are insufficient to increase the network into unprofitable areas.

However, overall pro-poor orientation and consciousness has evolved significantly in recent years. As attempts to implement Public Private Partnerships (PPPs) have been continually stalled, preparations by Government for their arrival have continued, with concerns for the poor and vulnerable leading the agenda. The Ghana Urban Water Project is the most recent urban

## Results: Kumasi Survey

Fifty residents, of whom 34 were women, in the urban poor communities in Kumasi were interviewed on accessibility to water supply services.

The results of the survey indicate that:

- ◆ a significant percentage used to have a house connection, which was eventually disconnected because of non-payment of water bills
- ◆ those without a house connection were paying vendors 1.4 to 3.6 times the lifeline tariff enjoyed by those with a connection
- ◆ when there was no water in the network, 49 out of the 50 respondents relied on hand-dug wells, sometimes paying similar prices
- ◆ only 25 % of the respondents had heard of the PURC
- ◆ over 90% indicated that they had no one to complain to about issues related to water supply services

## Poor targeting of subsidies:

A study on domestic water pricing for households with direct connection to the piped network in Kumasi revealed that the low-income households in multi-occupancy houses with single meters, or "compound houses," were paying 20 % more than the high income users per unit volume<sup>1</sup>. The study also revealed that the low-income households were using 56 litres per person per day whilst the high-income household were using 120.

water improvement project. Promised funding is about US\$ 130 million for the sub-sector with about \$ 10 million earmarked for pro-poor activities.

According to the PURC and the GWCL, pro-poor water supply is recognised by the use of lifeline tariffs and the provision of public standpipes for informal areas and urban poor neighbourhoods where house connections may not be available. The lifeline tariff, the first step of an increasing block tariff, has recently been extended from 10m<sup>3</sup> to 20m<sup>3</sup> for all domestic customers, irrespective of income level or type of neighbourhood. As many of the poor share connections, either living in multi-occupancy compounds or tenement blocks, they end up paying higher prices for their water than the rich households. What's more, cost recovery and economic efficiency objectives are unlikely to be reached because middle to high-income households may never consume beyond the first subsidised consumption block.

A possible source of funding for future infrastructure improvements could come from the Social Investment Fund. Devised as part of the Ghana Poverty Reduction Strategy (GPRS), the fund provides 75% of capital cost, whilst the District Assembly pays 15% and the beneficiary community 10%. Since to date there is little or no collaboration with the relevant urban water supply stakeholders, it seems unlikely that this will provide an efficient and effective means for tackling water-related poverty issues.

	Poverty status			All
	Very poor	Poor	Non poor	
Piped	8.0	15.1	37.8	34.1
Water Vendor	1.0	1.7	7.3	6.4
Neighbour/Private	31.4	28.6	28.9	29.1
Public standpipe	17.2	24.9	13.5	14.4
Well	20.2	15.2	7.8	9.2
Natural sources	22.2	14.4	4.8	6.8
All	100	100	100	100

Table above: Main source of drinking water of households by poverty status in urban areas of Ghana, Ghana Statistical Service

## USO and Legal Issues

The Act that established the GWCL, Act 310, instructs GWCL to provide service to all inhabitants in the supply area<sup>2</sup>. The Constitution of Ghana, Article 35 (3) states a legal obligation for the provider to promote “just and reasonable access by all citizens to public facilities and services”<sup>3</sup>. GWCL responds to this legal requirement by pointing to its three levels of service delivery designed to accommodate all housing types; the house connection, yard connection and standpipes.

The PURC Act, 1997, establishing The Public Utilities Regulatory Commission (PURC), Act 538, to regulate the water and electricity services in Ghana, under Section 11, Duty to Provide Adequate Service requires: ‘A public utility licensed or authorised under any law to provide utility service shall (b) make such reasonable effort as may be necessary to provide to the public service that is safe, adequate, efficient, reasonable and non-discriminatory;’ There is no other requirement or explanation with regard to serving the poor, though there interestingly is a requirement to ensure use of up to date technology.

The Constitution (Article 17) permits Parliament to make “different provision for different communities with regard to their special circumstances” though it is unclear if this is an obligation. As with the non-discrimination requirement in the PURC Act it does perhaps pave the way to promote service provision to its un-served areas by collaborating with alternative providers. Assuming PURC protects this entitlement for

all citizens to gain access to services and facilities, as stated above, then they would be legally bound to enforce this legislation if it continues to be breached.

However, the current legislation appears only to authorise the service of the formal provider and does not encompass the role of alternative service providers. Legislation does exist to allow independent operators to function by way of abstraction licences, though it is not known whether they are granted (or even enforced) in a formal operator’s catchment area.

The PURC Act also grants the power to make regulations that are necessary for the implementation of its mandates. The commission has so far issued two regulations. These are: the Public Utilities (Termination of Service) Regulations 1999. LI 1651 which set out the circumstance under which utility service consumers may be terminated (disconnected); and Public Utilities (Complaints Procedure) Regulations 1999. LI 1665, which specifies the procedures by which any person (utility or consumer) may lodge a complaint with the Commission.

Section 31 of the Act allows for the Establishment of Consumer Services Committees, (1) There may be established by the Commission in such areas of the country as it considers necessary consumer services committees. (2) The Commission shall by legislative instrument prescribe the membership and functions of a consumer services committee. As described later CSCs have yet to be established.

## Compound and Peri-urban Housing



70% of the households in urban areas live in rooms in compound houses (Ghana Statistical Service, 2000), one household per room, consumers do not yet desire connection to that room, ‘there no space’, but are paying too much for their water to landlord’s standpipe: c300 per 17 litre bucket (\$2/m<sup>3</sup>) when the official standpost rate is c100 per bucket

There is a need to regulate on-selling prices more effectively or perhaps to promote competition by tertiary ‘flexible’ low-cost distribution lines through the compounds to enable easy connection by tenants.

Extensions of water mains and distribution network to unplanned housing as it advances into cheaper land on the periphery of the city has to be based on a commercial decision of the water provider based on probable growth in housing density and growth in likely market. However, major settlements of low-income residents might necessitate earlier service coverage.



# Alternative Service Providers

For the poor and vulnerable dwellers in the informal and illegal settlements, alternative service providers are the only available option because the number of public standpipes is woefully inadequate.

Ghana has several mechanisms for delivering water that complements the formal water supply network. There are water vendors (including neighbours who on-sell water), tanker operators and small-scale independent operators (who may also supply the vendors and tankers, aside from supplying individual customers). All these alternative providers are not directly regulated by the PURC but instead, are left up to the open market.

Research has found that the majority of the poor rely on these alternative providers, as illustrated in the table on the previous page.

## Drinking Water

Many consumers buy drinking water in 300ml sachets, that is sealed plastic bags, from private businesses for \$0.11, about 1000 times the unit cost of GWCL water. Those who can further afford buy bottled water.

Water vendors are a common part of the low-income communities. Despite being largely unrecognised, they must obtain written permission from the formal provider before vending can commence – causing many to operate illegally. Conversely, tankers, which are usually the property of entrepreneurs, service un-served and underserved areas in collaboration with the formal service provider. An agreement has been made with the tanker associations, which stipulates roles and responsibilities and sets a special tariff, sanctioned by PURC, that recognises the intention of selling to the un-served and under-served areas.



South Odorkor private showers—\$0.06 'for a reasonable time', \$0.07 for each use of nearby private toilets.



Sodom & Gomorrah, 'temporary site', 10,000 people, approx. 50 private wash stations/shower blocks — c400-500 for 18 litre bucket (approx. \$2.5/m<sup>3</sup>) **6.25 times ratio**

Though in the past it has been neglectful of these users, the PURC is taking steps to improve the service offered by water tankers. One initiative includes increasing the number of filling stations used by the tankers, with the eventual aim of passing on the savings in fuel to the end user. This is because the majority of the water cost is due to the high price of fuel for haulage. Plans are also said to be underway by PURC to prepare guidelines for the tanker operators. Some of the considerations are:

- ◆ Price comparisons between areas and regions
- ◆ Handling of complaints against operators either by GWCL or the tanker association
- ◆ Mechanisms to prevent the formation of cartels

## Alternative Regulation

Tankers were for a long while 'stealing' water to sell to the un-served areas of the city. A Memorandum of Understanding between the network provider and tanker associations was formed, which has seen a number of service improvements to the un-served and under-served areas. Despite costing users up to ten times more than water from a formal connection, it benefited the consumers by stipulating that tankers could only be used for transporting water, thus maintaining improved levels of water quality. However, monitoring procedures have yet to be put in place to enforce this requirement.

Table below: Price of water by alternative service providers—field survey

	Price per 18-litre bucket
Vendors (Accra):	400 cedis (US \$ 2.4/m <sup>3</sup> )
Vendors (other urban centres):	150-200 cedis (US \$0.93-\$1.2/m <sup>3</sup> )
Public standpipe:	70-100 cedis (US \$0.6-\$0.44/m <sup>3</sup> )
Tankers:	430-500 cedis (US \$2.58-\$3.0/m <sup>3</sup> )



# Customer Involvement

The draft water supply policy states the Government policy of empowering the general public and civil society through consumer involvement (MWH, 2004). In particular, it aims to make the utility more accountable to its customers by increasing awareness of consumer rights and obligations, and providing mechanisms for consumers to participate in decision-making about the level of service. In response, PURC has taken steps towards the formation of Customer Service Committees (CSCs) similar to those formed in England and Wales, where the CSC would be able to represent the concerns of the customers to the regulator and the utility. The plan has yet to be implemented, reportedly stalled due to a lack of available funds. Other reports point to a concern that such committees might be hijacked for political ends, becoming ‘too powerful on the ground.’

However, a system that seems to show initial success is the use of residents associations that are being used by PURC to collect customer feedback. Communication is also being made with established consumer groups and in public hearings where, for example, new tariff proposals or other related water supply issues are discussed. The media is also used both by the regulator

### Customer Ownership & Management:

In the (rural) community water supply sub-sector, a totally new approach referred to as community ownership and management is used where the customers are involved in the choice of the technology, location of the standpipes, the pace of the network extension and the direction for the network extension. As part of the community ownership and management strategy, there are periodic community meetings where the management board (also community representatives) renders the accounts of their activities to the community. At such gatherings, customers are free to ask any questions related to the water supply

and by customers. The regulator has used a combination of radio, TV and print media to create awareness on certain issues. Customers have also increasingly used local radio to complain about service levels, putting pressure on the provider in new and innovative ways.

However, these mechanisms are failing to reach the majority of the urban poor since it is only existing customers who have clear channels to complain and make their voice heard. A study conducted by the regulator found that nearly all urban poor respondents were unconnected to the network and instead relied heavily on alternative service providers. It was revealed that given a problem with their water supply, they had no appropriate avenues to direct their complaints.

By ignoring the alternative water supply sector, the regulator is failing to meet the needs of the poor. The beginning of good customer involvement is being pursued for those already connected to the network, but it is the unconnected, indirect customers, the urban poor, who remain vulnerable by being allowed to fall through the regulation gap.

### Participation

‘At a recent meeting with all the stakeholders the ministry ((MWH) offered to “open its doors as widely as possible”, even to invite all stakeholders including those currently kicking against the idea of implementation of any form of privatisation whatsoever to even **participate in the contract documentation preparation** so that their respective fears with regards to the performance of the ultimate contract will be addressed.’ (italics original)

Hon Dr Charles Brempong-Yeboah, Deputy Minister, MWH



### Private Water Tankers Owners Association

313 tankers charging 185,000 cedis for 1500 gallons (6.75m<sup>3</sup>)

‘Published prices’, see photo right, c40,000 per load to GWCL, \$3-\$5 /m<sup>3</sup>



### Independent providers

An independent producer and provider in Kumasi indicated his desire to extend pipes to interested customers to increase coverage (and benefits) to the community, but the enabling framework does not exist. He pointed out his fear of what could happen to his investment in the future, for instance, when the proposed PPP comes.

Independent providers, who source from groundwater, operate outside of the regulatory framework. Water quality data can be made easily available and abstraction licences, though required by law, are

# Conclusions

Deputy Minister, MWH, Hon Dr Charles Brempong -Yeboah describes how the government has been trying to involve the private sector since 1992/93: 'the current problems with urban water supply have come about *in large part* due to the inability of the public utility company, GWCL to improve its efficiency.' (italics original in Presentation to Workshop on PSP and the Urban Poor). The Minister is personally very committed to ensuring service to the poor and a body provisionally termed the Urban Low Income Group Water Unit (ULIGWU) is being established within the Ministry to identify the poor so that they can be targeted for assistance.

The conclusions from the field study are that:

- The existing regulatory mechanisms are inadequate to deliver services to the urban poor in a sustainable and equitable manner.
- Achievement of the universal service obligation is not a primary duty for PURC even though it is recognised as very important. Both PURC and MWH do not have a working definition for USO and there are no mechanisms in place to require, monitor and ensure early achievement of USO.
- The MWH sees the achievement of USO as its duty but does not have clear programmes and mechanisms in place to achieve that. Business as usual would therefore result in increased proportion of the poor without an improved water supply.
- The activities of the alternative service providers are serving the majority of the urban poor groups but are not regulated by PURC. The regulatory framework is also not facilitating the activities of the alternative service providers for the benefit of the service recipients.
- The regulatory framework lacks the mechanisms to issue a permit or license to the independent producers.
- The existing level of customer representation and involvement is low and virtually non-existent for the un-served poor.

Since the fieldwork for this study was completed PURC has issued a Social Policy and Strategy for Water Regulation. This states that that PURC will insist that public utilities include pro-poor criteria when undertaking water supply projects and will promote cooperation between utility and secondary providers in safeguarding the quality of service.

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Based on the study conclusions and the subsequent release of the Social Policy, the following **recommendations** are made:

- Clear guidelines and mechanisms for reducing the proportion of the poor without access to improved water services should be developed by PURC/MWH, enabling the strategy to be implemented within a reasonable time.
- Government should re-consider whether PURC should have the achievement of USO as a complementary primary duty and therefore prepare a working definition of the USO which will form the basis to require, regulate and monitor the achievement of the USO by service providers.
- MWH should be proactive in sourcing funds to address pro-poor concerns. Pro-poor aspects clearly have a direct link to poverty alleviation. For example some of the Highly Indebted Poor Countries' HIPC relief, could be earmarked solely for pro-poor water supply.
- The services of the alternative services providers should be well acknowledged and their efforts facilitated to ensure more inhabitants have access to improved water supply services. MWH and PURC should develop procedures for registering or licensing alternative service providers, especially the independent producers and let them know of the role and obligations they have to the various relevant agencies as well as the customers.
- PURC and MWH should develop guidelines and modalities for the operations of the Independent Producers (IP) in urban water supply
- There is a need to have explicit mechanisms to empower customers, especially the urban poor, so that their needs will be adequately addressed by the regulatory framework. Customer representation should be mindful of the urban poor and the vulnerable
- It is recommended that PURC uses a focus group methodology or suitable participatory methodology to consult with the urban poor on a regular basis to incorporate their voice and concerns in the delivery of water supply services.

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*Note: unreferenced quotes taken direct from fieldwork interviews*