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Optimising social inclusion in urban water supply in Ghana

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Abstract
The study was aimed at improving urban water supply to the urban poor. This was based on the review of policies, legal and regulatory framework for water supply and empirical evidence of the nature of water supply to the urban poor. The paper discusses the framework for identifying opportunities for optimizing social inclusion.

Keywords: Social Inclusion, Pro-poor, Urban Poor, Water supply

1 Introduction

By 2025, urbanisation in Africa will have progressed from about 32 to 50 % with the urban population increasing from about 300 million to 700 million (WUP, 2003). If current trends prevail, the large majority of urban dwellers will be living in poverty in unplanned or informal settlements without access basic services such as water and sanitation affecting public health adversely. In Ghana, the poor (defined by Living Standards Measurement criteria) make up 47% of the total population in urban piped system areas (PURC, 2005). Within urban piped system areas only 15% of the poor have access to piped water either directly or via yard taps (PURC, 2005). Improving water supply services to the urban poor is justified on the grounds that basic quantity of water for basic needs may be considered as a merit good with significant public health benefits. Inspite of acknowledging the social objectives of water supply, the worst affected by the poor water supply situation in sub Saharan Africa is the urban poor (WUP, 2003). Some of the barriers for rapidly extending services to the urban poor are the inadequate policy, legal and regulatory framework for pro-poor water services delivery and lack of understanding of specific requirements of low-income households (WUP, 2003)

The Public Utilities Regulatory Commission (PURC) of Ghana, which has responsibility for economic regulation of urban water supply, has indicated that it has a primary concern to address the interests of the poor. This has led to the adoption by PURC of a working definition of the urban poor as those (i) without direct access to regulated piped supplies, (ii) who depend on secondary and tertiary suppliers and (iii) who buy by the bucket.

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The purpose of this study is to improve water supply by incorporating pro-poor orientation and optimising social inclusion in Urban Water Supply delivery. This paper begins with a review of the policy, legal and regulatory framework for pro-poor water supply in Ghana. A case study on water supply in two low-income communities in Kumasi, the second largest city in Ghana is presented to provide empirical data on the nature of water services to the urban poor. The opportunities for optimising social inclusion in Ghana's urban water supply delivery are then discussed.

2 Review of Ghana's Pro-poor water Supply Framework

2.1 The Pro-poor water supply framework

The review was conducted based on desk study of relevant documents and interviews with key informants in the water supply related institutions. The key documents reviewed were the National constitution, the drinking water policy and the Acts establishing the urban water utility and the economic regulation body, which are described.

2.1.1 National constitution

GWCL is required to supply water to all inhabitants in the supply area (GOG, 1965). 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 (GOG, 1992). In Article 17 of the same constitution, Parliament is permitted to make "different provision for different communities having regard to their special circumstances". This provision allows for the service providers to have appropriate mechanism to optimise social inclusion.

2.1.2 Ghana Water Company Limited Act

The Ghana Water Company Limited (GWCL), successor of the Ghana Water and Sewerage Corporation (GWSC) is the lead organisation responsible for urban water supply delivery. GWCL is a statutory corporation created by parliament under the Ghana Water and Sewerage Corporation Act, 1965 (Act 310). GWCL is required to supply water to all the inhabitants in its supply areas. However, GWCL is only able to serve on 60 % of its potential customers. The Act also states that, taking one year with another the cost of water supply should be recovered.

2.1.3 Drinking water policy

One of the objectives of the drinking water policy is to ensure accessibility to safe drinking water by low-income and peri-urban consumers. Two strategies are mentioned in the policy. One strategy is to adopt a tariff rate structure that provides an optimal benefit to consumers including low-income consumers. Another strategy is to encourage cooperation between GWCL and small-scale independent providers, rather than grant exclusivity to either party, to facilitate adequate and affordable provision of safe drinking water to un-served and underserved areas.

2.1.4 PURC Act

PURC was established by the PURC Act, 1997, Act 538 to regulate the water and electricity services in Ghana (GOG, 1997). For water supply the mandate covers only urban water supply. PURC's key tasks include the following:

- Provide guidelines for setting rates for the provision of utility services
- Protect the interest of consumers and utility services providers
- Monitor and enforce standards of performance for provision of utility services
- Promote fair competition among public utilities
- Initiate and conduct investigation into standards of quality of service given to consumers

The Act also gives PURC the power to make regulations that are necessary for the implementation of its mandates. The commission has issued two regulations: the Public Utilities (Termination of Service) Regulations 1999. LI 1651 and Public Utilities (Complaints procedure) Regulations 1999. LI 1665. The commission has released two new publication namely the "Social policy and strategy for water regulation, 2005" and "Urban tariff policy, 2005".

2.1.5 PURC Social Policy

The PURC social policy and regulatory strategy sets out the objectives of PURC in fulfilling its duty to protect water consumers, which includes both the served and un-served (PURC, 2005). This is in fulfillment of PURC's commitment to address social fairness, in view of market imperfections, and ensure that the poor and vulnerable are protected by adequate mechanisms that provide them with their basic needs for water. The key points of PURC Social Policy are:

- PURC will take the lead role in the resolution of pro-poor issues in the urban water sector in line with its regulatory mandate to protect the interest of consumers, as well as Government poverty reduction objectives.
- PURC will support any interventions, which result in improved and more reliable access to water, with the ultimate goal of direct connections.
- PURC will instruct urban water utilities to include pro-poor criteria when undertaking investments in water supply projects.
- PURC will lead the formation of a working group of stakeholders to address provision of service to the urban poor. The group's tasks will include the targeting of any social funding or other relief schemes for the poor. PURC will undertake pilot studies to test interventions in delivering water to low-income communities to provide lessons that will inform its regulatory policies, the supply and payment options available to the utility and the criteria for determining investments targeted to the urban poor.
- Secondary and tertiary suppliers – tankers, cart operators and domestic vendors – form an important aspect of the water distribution chain. PURC acknowledges that the best approach to water delivery is to provide direct supply through the utility's mains. However the Commission recognizes that this will be hard to achieve in the short to medium term, and secondary providers will continue to play an important role in the supply chain. PURC has therefore resolved to adopt innovative approaches to reaching the urban poor in the short term through some of the following interventions to enhance the capacity of secondary suppliers to deliver acceptable service at an affordable price:
  - bring tanker filling points closer to areas of need (recognising technical limitations) through collaboration with Ghana Water Company Limited;
  - require GWCL to allocate a percentage of their production to secondary providers;
    promote co-operation between the utility and secondary providers in safeguarding the quality of service given to consumers

2.2 Strategy for pro-poor water supply

According to the social policy, PURC will insist that public utilities include pro-poor criteria when undertaken water supply projects and promote cooperation between utility and secondary providers in safeguarding the quality of service. This is however yet to be implemented. Another strategy that has been discussed is a social connection fund to subsidise or provide free connections for the poor and vulnerable groups; and to enable them have a direct connection to the water system. However, the social connection fund is not supported because of the lack of network mains (PURC, 2005).

According to the GWCL and PURC, the concerns of the low-income groups are partially addressed through the tariff structure and the provision of public standpipes for informal areas and urban poor neighbourhoods where house connection is not feasible. GWCL uses a uniform tariff structure through out the country for domestic customers irrespective of the income level or type of neighbourhood. It is an increasing block tariff with lifeline for the first block of $20m^3$ (it used to be $10m^3$). 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 meter "compound houses" were paying 20 % more per unit volume than the high income users in single family houses (Nyarko et al, 2004). The same study also revealed that the low-income households were using 56 l/c/d whilst the high-income households were using 120 l/c/d.

For the poor and the vulnerable dwellers in the informal settlements, the supply options are GWCL standpipes, private standpipes, neighbours and tanker operators. The benefits of the lifeline tariff is only enjoyed by the users of the GWCL standpipes, but the number of GWCL standpipes is woefully inadequate making the other expensive sources the available option for the poor and vulnerable. The prices of water from the tankers operators to the end users are very expensive because of the transport cost amounting to about 75 % of the cost (WUP, 2003). There are also no clear mechanisms or strategies in place to ensure that the costs of their operations are reduced for the benefit of the customers.

The PURC, in collaboration with Ghana Water Company Limited (GWCL) and WaterAid, has plans to undertake pilot projects to obtain lessons in the provision of water supply to poor and low-income households. These lessons will inform PURC's social policy, offer GWCL options for supply of water to poor communities. These interventions will test community-management of bulk water supply, supply through standpipes and involvement of women in water delivery to deprived households. Other objectives include improved water quality of water delivered through secondary suppliers and the elimination of illegal connections. The pilot projects are planned for:

i) South Teshie (Nshorna) in the Accra East Region (ATMA) where improved bulk storage arrangements will be put in place,
ii) Glefe-Agege in the Accra West Region (ATMA), where public standpipes will be provided

3 Water services to the urban poor: Case of Kumasi

Questionnaires were administered to 210 households in the two communities for information on the socio-economic conditions and nature of water services. In addition, focus group interviews and direct interviews were conducted with identifiable groups and key informants for more insight on the nature of water services to the low income communities.

3.1 Description of the Communities

The two low income communities used for the study are Ayigya and Anloga. Aygya community lies opposite KNUST along the main Accra-Kumasi Road and bounded on the south by Kentenkorono and on the north by the Sisa stream. Ayigya has a population of 30,000, land area of 50 ha, 5,966 households and 1181 houses. The Anloga community is on the southern part of 24th February Road between Aboabo River and Sisa Stream. Anloga has a population of 38,000, land area of 70 ha, 7,694 households and 1057 houses. The socio-economic profiles of the communities are shown in Table 1.

Table 1: Socio-economic profile for the study areas

Socio-economic Parameters		**Anloga**	**Ayigya**
Sex	Male	21.6%	17.6%
	Female	78.4%	82.4%
Age	No Response		0.9%
	Less 24 years	3.9%	12.0%
	25-29 years	13.7%	20.4%
	30-40 years	58.8%	36.1%
	41-50 years	13.7%	17.6%
	Above 51 years	9.8%	13.0%
Marital status	Single	17.6%	10.2%
	Married	70.6%	79.6%
	Divorce	11.8%	10.2%
Education	Illiterate	42.2%	30.6%
	Primary	11.8%	13.9%
	MSLC/JSS	39.2%	44.4%
	Secondary	5.9%	8.3%
	Tertiary	1.0%	2.8%
Occupation	Petty Trading	78.4%	64.8%
	Artisan	11.8%	16.7%
	Public/Civil Service	2.0%	3.7%
	Others	7.8%	12.0%
	Unemployed		2.8%
Income per day	No response	8.8%	5.6%
	Less than ¢10,000	9.8%	8.3%
	¢10,000- ¢20,000	48.0%	57.4%
	¢20,000- ¢40,000	29.4%	23.1%
	¢40,000- ¢60,000	3.9%	2.8%
	N/A		2.8%
Expenditure per day by Household (HH)	N/R	7.8%	15.7%
	Less than ¢20,000	6.9%	1.9%
	¢20,000- ¢40,000	69.6%	68.5%
	¢40,000- ¢60,000	15.7%	13.9%
Residential Status	Tenant	86.3%	66.7%
	Family Member	9.8%	28.7%
	Landlord	3.9%	4.6%
Family Size	1-3 members	17.6%	15.7%
	4-6 members	60.8%	53.7%
	7-9members	13.7%	25.0%
	10-12members	7.8%	5.6%

3.2 Access to water and Time spent in accessing water

91 % of households have access to water by means of purchasing from a neighbour. 7% own a pipe connection whilst 2% use a public standpipe. 78% of the households spend between 2 to 6 hours a day fetching water and 14% spend between 1 to 2 hours shown in figure 1. This is mostly done by women and children and affects attendance and punctuality at school.

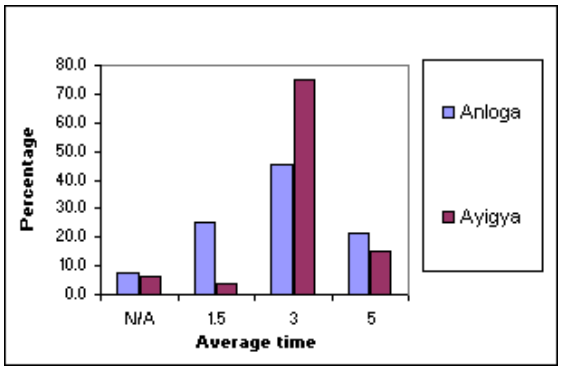

Figure 1: **Time spent accessing water**

3.3 Distance to water source

Figure 2, shows the distance to the water source. About 70% of respondents walk more than 700 metres to fetch water.

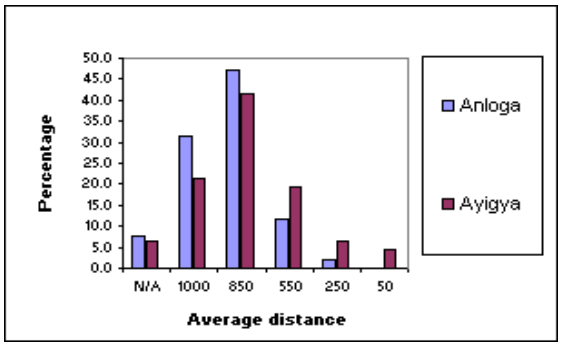

Figure 2: Distance to Water Source

3.4 Expenditure on water

53% of households spend between 2,000 and 4,000 cedis (US$0.22 and US$0.44) daily on water. The average income is 20,000 cedis (US$ 2.22) and the average household spends 3,000 cedis (US$0.33) on water. This gives the percentage of income spent on water as 15%.

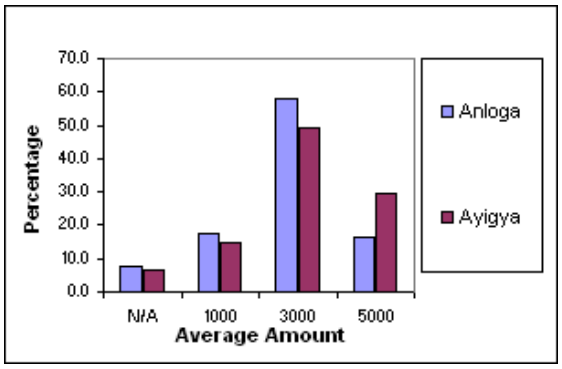

Figure 3: Expenditure on Water

3.5 Water Consumption per person/day

79% of respondents use less than 36 litres (2 buckets[1]) a day. This amount is less than the 50 litres of water recommended as essential for basic needs. Some respondents were using on average 9 litres of water a day.

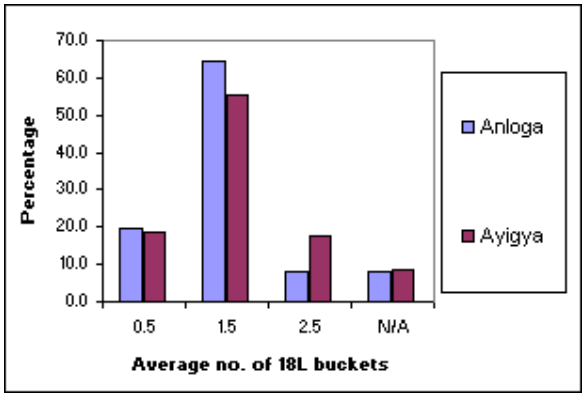

Figure 4: Water Consumption /person/day

4 Framework for identifying opportunities for maximising social inclusion

The policy framework for pro-poor water supply and the empirical evidence from the two low-income communities in Kumasi suggests that there is scope for improving water supply services to the urban poor and low income communities. The social policy for urban water supply by PURC is the first attempt with promising ideas and strategies to enhance pro-poor orientation in the water service delivery but not yet implemented. For instance, the plan to pilot pro-poor interventions by PURC, WATERAID and GWCL is not in place and expected to be in place by 2007. Also, the idea of establishing clear relationships between formal and informal service providers to enhance services has not been implemented. Specific activities as part of the collaboration may include the following:

- Memorandum of understanding between formal service providers and informal service providers
- Licensing of alternative service providers to offer them recognition and also regulate their activities
- Provide more filling point for tanker operators near the urban poor communities

The PURC indicated that targeted subsidy for the poor and vulnerable using Social Connection Funds to enable easy access to the network would not be supported because of the lack of distribution pipes in the low income areas. Given that connection cost for accessing piped water supply could be a barrier (WUP, 2003) the social connection fund should be re-investigated especially when distribution lines are provided in the low income areas.

From the survey, the low income residents relying on informal service providers pay relatively high tariffs for water. Therefore, appropriate tariffs that recognise the needs of the urban poor and provide optimal benefit to customers are essential. The level of customer involvement in urban water supply delivery is low suggesting that mechanisms that give customers a voice and involve them in decision-making could improve services to the urban poor through increased transparency and accountability.

[1] 1 bucket of water has a capacity of 18 litres.

The SWITCH research and demonstration activities provides a framework for optimising social inclusion for water delivery to the urban poor through the learning Alliance Framework by building on existing strategies. The SWICTH activities envisaged are:

- Further review the pro-poor water policy framework by incorporating output of interviews with key informants and review of pro-poor orientation in other sectors such as health.
- Rapid survey of the nature of water supply to urban poor in Accra
- Monitor the strategies in the PURC social policy and pilot project by PURC/WATERIAD/GWCL
- Stakeholder involvement in the research through the learning alliance
- Sharing research outcome through learning alliance for input and ownership and research uptake.

5 Conclusion

The existing policy, legal and regulatory framework could be more enabling to enhance water supply to the urban poor. There are not sufficient incentives for the formal utilities to serve the urban poor. There is also the need to give the customers more voice to strengthen the accountability mechanism for the service providers to deliver improved services to the urban poor. Given that the majority of the low income and urban poor pay high tariffs compared to those getting water from the piped network it is important to design an appropriate tariff regime that addresses the needs of the urban poor. The SWITCH research will provide the framework to understand and optimize social inclusion for urban water delivery.

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