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PEOPLE-CENTRED APPROACHES TO WATER AND ENVIRONMENTAL SANITATION

Performance of management contracts in small towns water services

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Although national and international institutions have put much effort in the field of water supply improvement during the last few years, coverage figures are still low. Many developing countries are taking initiatives to develop mechanisms of improving delivery of water supply services. One of the initiatives being employed is delegated management of water services to the private sector, through management contracts. Uganda started water sector reforms in 1997 and took steps to increase involvement of the private sector in management of its urban water services through management contracts in 2001. In Uganda, only 60% of urban areas and 55% of rural areas have access to improved water services. Against this background, this paper reports on research undertaken in Uganda, with the objective of analysing the performance of management contracts in the recent and still on-going reform and private sector participation process of the water sector. The research, which was undertaken as part of an MSc study, followed a case study methodology, and comprised a literature review, customer surveys, focussed group discussions and key informant interviews. The paper presents the research findings, and concludes that well planned and designed management contracts can potentially improve performance of small towns water systems for the benefit of the users of services.

Introduction

Governments in developing countries face an increasing challenge to improve water services through strategies that are sustainable in economic, social and environmental terms. In economic terms, this challenge implies that the provision and maintenance of infrastructure conforms to acceptable service standards. This has led to increasing international interest in private sector participation in the urban water sector through management contracts and other public-private partnerships in the last few years. Involving the private sector in the water service delivery, which has traditionally been dominantly by the public sector, has required that Governments carry out substantial reforms in their public sector services.

Uganda has a current population of 24.7 million of which only 12% live in urban areas, and the rest (88%) live in rural areas and small growth centres with population of 500 - 5,000 people. In Uganda, the coverage of safe water supply currently stands at 55% and 60% for rural and urban water supply respectively.

The Uganda Government through the Directorate of Water Development (DWD) of the Ministry of Water, Lands and Environment (MWLE) initiated reform processes in a background of low water and sanitation coverage in 1997, after a number of unsuccessful initiatives of developing mechanisms for improving water services to the growing number of small towns. Such initiatives included community management arrangements and the decentralisation of urban water service delivery to local governments. The policy of institutional reform was intended to increase private sector

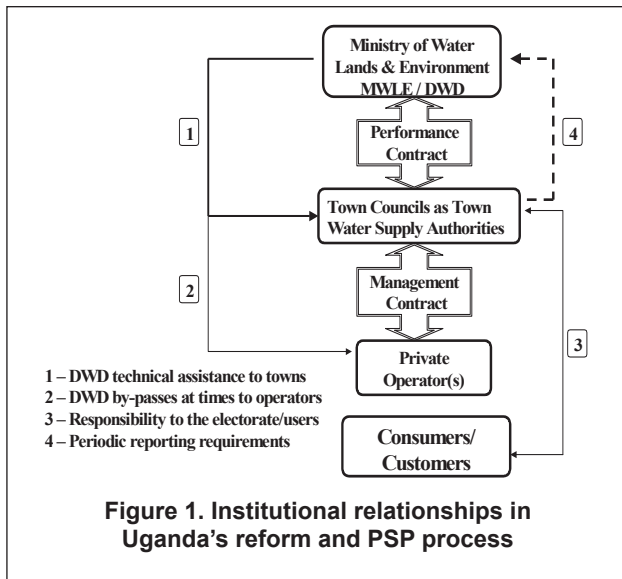
involvement in water and sanitation services delivery, operating commercially viable services in the towns, thus reducing the government's burden for managing these services.

The reform process and Private sector participation in Uganda's water sector

Implementation of management contracts as part of the reform process through private sector participation started in the National Water and Sewerage Corporation (NWSC) under the Kampala Revenue Improvement Project (KRIP) in 1997. For the small towns, PSP started in May 2001, when local management contractors commenced operations in 9 small towns where the World Bank (IDA) had supported the capital development works to refurbish water supply infrastructure. By January 2003, a total of 24 small towns had contracted private sector operators through management contracts, with the Government targeting to have all small town water supplies gazetted by December 2003 and placed under private sector management contracts by March 2005. The institutional and legal framework for the implementation of management contracts is laid out in the Local Governments Act (1997) and the Water Statute (1995), with supporting institutional contracts and Government regulations. The institutional framework is presented in Figure 1.

Defining small towns in Uganda

"Small towns" in Uganda are defined as having populations



of 5,000 - 15,000 inhabitants, characterized by a highly concentrated settlement core, with a scattered rural nature part under the same administrative structure referred to as the fringe, and normally established with Town Councils as the Local Government.

The research objectives and methodology

Research on the performance of management contracts in Uganda was carried out in 2003 as part of an MSc degree at Loughborough University. The research objectives were to; (a) assess the performance of water supply management contracts including their effect on individual users, communities, institutions, and the political environment, and; (b) identify and recommend appropriate areas of improvements in the engagement of the private sector in management of small town water supply services, using Uganda as a test case. The methodology adopted was a case study, within which other social research methods based on both quantitative and qualitative processes were employed, involving:

- (i) Household level customer surveys;
- (ii) Focused group discussions with community members;
- (iii) In-depth interviews with key informants; and,
- (iv) Observations within the community on the water supply distribution and accessibility of services.

Appropriate performance indicators and service characteristics were used in the design of the household questionnaire. Group discussions and key informant interviews were used to determine the control of resources, decision-making and levels of service delivery. The data were recorded and analysed from the various sources detailed above. Responses from the customer surveys were analysed using the "Statistical Package for Social Scientists" (SPSS) software, and results

were used to provide a basis of customer satisfaction survey, and correlated with other methods of data collection above to arrive at converging lines of the research.

Research findings

During the field data collection, a total of 80 respondents were selected from two representative small towns of Lugazi and Lyantonde, with diversity in main piped water supply sources, differing main commercial activities, different population characteristics and location within the country. In addition, a total of 32 males and 37 females in both towns participated in focused group discussions, and 17 key informants were interviewed. There was no identified variation in the household size between the results of the survey and the 2002 Uganda National Population and Housing Census, both depicting average sizes of 4.7 and 4.5 respectively. The results indicated an average household water use of approximately 18 litres per person per day, apparently indicating no effect of the change in management of water services (from public to private) on household water consumption.

Trends in water source use

There was identified a positive trend in water source usage from traditional sources (such as springs located in dangerously steep valleys in Lugazi and congested handpumps) to piped water supply under management contracts. Many more people are willing to shift from the current water sources to higher levels of service, but these are limited by the number of connections. The management contracts provide that the Water Authorities and DWD are responsible for the provision of materials for extending services to communities, and delays in delivery of these materials is seen by the private operators as a delay or denial to the communities to access safe piped water supplies and increase the coverage.

Service delivery indicators

The opinions of users of services and their level of satisfaction provide essential information about the operation of a service. The indicators of service delivery are central to the whole concept of assessing the performance of the management contracts. The quality of service to customers was determined by focusing on the various dimensions of service characteristics such as water availability, water quality, water pressure, and customer relations.

Accessibility of households to water sources

There has been a great reduction in the distances of the households to their main water source in both towns under the management contracts. This is attributed to the increase in the number of private connections, also in an effort by the management operators to increase their customer base. It is appreciated by all the respondents irrespective of whether or not they are aware of the existence of the management contracts. To some extent, the increase in connections that occurred was financed from the Government's financial and material transfers, and there are indications to show that

this policy is still in progress though delayed by release of capital development funds from the public exchequer. All the management contracts have a built in incentive of expanding coverage through bonus payments for new connections, and the billing fee per connection. The assessment therefore concludes that the management contracts in both cases had a positive impact in improving water supply coverage to the small town communities.

Continuity of water supply

Perhaps the biggest achievement under the private management operators is ensuring some degree of continuity of water supplies. Continuity was used as a measure of reliability of the water supply system and expressed as a proportion of time on a daily basis that water is available in the water supply distribution system. The continuity of supply has important implications for consumers. When the water supply is discontinuous or intermittent, households may be forced to use the alternative sources that are of less quality and less convenient. Discontinuous supplies also lead to water being stored in containers in the houses leading to possible sources of contamination.

Continuity of supply is a set target of the Performance Contracts, and there are disincentives within the contracts to the contrary. This indicates how responsive the separation of roles of monitoring service delivery between the small town administrations and the private operators can be effective. Nevertheless, interruptions in service are still reported to continue to occur, either as a result of unexpected electricity power breaks (power outage) or as a result of planned repair and extension works. This notwithstanding, the research concludes that the involvement of the private operators in the water sector in Uganda had a positive impact on the continuity of water supply services.

Reliability of supply

There were two identified perspectives in reliability of service. One is the reliability in terms of services at water outlets, which has a direct effect on the mode and control of distribution of water, and reliability in terms of water production that reflects on the direct control of the private operators. The private operators are not responsible for operations of private connections including services to those who collect water from these outlets.

There was noted an improvement in reliability of water supply in both towns, following the engagement of the management operators. A substantial proportion of those who do not consider their water supplies reliable collect water from neighbours' taps that are outside the control of the private operators. Reliability of supplies is therefore considered to have improved with long lasting effects in the communities.

Water quality

There was no implied change in water quality for the two towns before and during the implementation of the manage-

ment contract. The result for Lugazi reports user satisfaction in the water quality parameter, while for Lyantonde, a bigger proportion of users perceive their water to be of poor quality before and during implementation of the management contract due to the hardness. It may be argued that hardness affects user acceptance than it does to health effects, leading to quality test reports from the private operators indicating qualifying results against set standards. It can be further argued that the water is clearer (with less turbidity), free from bacteriological contamination in Lyantonde but the 'quality of water for laundry purposes is not guaranteed'.

Cost of water and tariff policies

The cost of water may exert a profound influence on the use of the water source. It is a key determinant of affordability, because it may discourage use of sufficient quantities of water for good personal hygiene, or it can make communities revert to the traditional unsafe sources.

It was noted in both cases that there has been no effect of the management contracts on the cost of water. The small towns authorities, in consultation with DWD fixed the tariffs in both cases before the commencement of the management contracts. These values were not altered over the duration of the contracts.

There is no uniform tariff structure in the two towns, and within Uganda. It is even not uniform for every outlet within the towns, with the highest tariff being paid by those who collect water from their neighbours' taps and the lowest being for metered private connections. Tariff designs are complicated, based on the type of water supply, irrespective of the service and the social status of customer. Table 1 indicates the water tariffs at different outlets in the two small towns.

Tariff increases following the entry of the private sector participants are in most cases expected to be substantial, especially during the transition from public to private sector provision in a commercialisation process. However, in the Ugandan situation, tariffs did not change, and there was an identified improvement in other service characteristics without necessarily changing the tariff.

Table 1 Cost of water at different water outlets

Parameter	Lugazi (Ushs)	Lyantonde (Ushs)
Government subsidised connection charge per customer	50,000	50,000
Cost per metered m ³ at each metered outlet	1,000	1,500
Cost per 20 litre container (jerry can) from a public tap	33.33	50.00
Cost per 20 litre container (jerry can) from a household private tap	50.00	75.00
<i>Exchange rate: 1 US Dollar = 2,000 Ushs (July 2003)</i>		

Regulation

In Uganda, there is no credible regulatory framework for private sector participation in the water sector, and the capacity to administer complex arrangements for private sector participation in the water sector over a long term is considered to be weak. The reform process had anticipated that DWD would be strengthened to take on the role of a national regulator while the regulatory function is being developed.

Water supply systems are operated as single entities, and different types of costs, revenues and monitoring are the responsibility of different local governments. Each town is responsible for the operation and maintenance of its water supply system, operating through an individual Water Board. DWD as the agency in charge of monitoring the contracts acts as the closest to a regulator, but it is acting more as a procurement and advisory entity with residual responsibility of price setting.

Performance reporting

The operational and investment inefficiencies of the sector had indicated lack of performance reports on unaccounted for water, billing and collection efficiency. Operational and overhead costs could not be generated easily for the sector in performance to benchmarked best practice. This was in spite of the fact that the water supplies were relatively recently constructed. Consolidated baseline data is actually missing, or not analysed to reflect the performance of the various water supply systems. There is presently available data on performance measurement in each town, and consolidated into monthly, quarterly and annual performance to inform policy makers at town level and nationally. Town Water Authorities have had several meetings to review the operations of the water supplies in the two towns based on the availed reports, and proposing improvements where necessary. Management contracts in a stepwise PSP approach have allowed government time to address issues of regulatory and information problems in the sector through building a database on the state of the water system in the sub sector.

Unaccounted for water (UFW)

A key research finding is that after two years from the start of the management contracts, physical UFW is still high at about 21% for newly constructed systems. While the contracts require the private operators to report on UFW, there is not anywhere reflected in the structure of the contract that the private operator was under any obligation to reduce UFW, and if so to what level. Work elsewhere had identified that though indicators such as UFW depend on factors that may be only partially within the control of a private operator, success in reducing physical losses actually depends on the government investing in rehabilitation of the systems. Nevertheless, positive trends in physical UFW reduction have been observed in the assessment process. The private operators do not as yet report on commercial losses as part of UFW.

Metering, billing and collection

Although there was nothing to attribute universal metering of connections to the private sector involvement in water supply services in small towns, there are indications that the management contracts have had a further impact on the metering of connections. Arising from this observation, one of the first effects of PSP has been a massive increase in the proportion of metered connections. Bill collections from private customers, especially the politicians and Government institutions, improved due to the private sector adopting a strict disconnection policy, though the account receivables from Government do take relatively long time.

Privatisation and services to the poor

The PSP process in Uganda has not been designed to provide different services to the poor and less politically powerful. Instead, the poor without private connections in society pay the highest bill per unit volume of water consumed. There are common political statements made about provision of “free water for all”, and these are seen as intended to gain popularity than benefiting all segments of society, including the poor.

Issues to learn from the Ugandan experience of management contracts

In general, private sector experience using management contracts in water supply services has been successful, with many areas to learn from in large cities, municipalities and towns. The following issues can be learnt from the Ugandan case study on the performance of management contracts in small towns and rural growth centres.

1. There appear to be justification for aggregation of services through combining small towns in a similar geographical location under one Water Authority and a private operator in order to effectively monitor the performance of the private sector, and offer effective regulation. Aggregation should however be undertaken with caution, to avoid a situation where the number of towns becomes too big as to make it difficult for local private sector firms to operate the system successfully.
2. There is need to strengthen the regulatory role of government for delegated water supply management through an independent body, whether services are in large municipalities or small towns.
3. While it is always assumed that the public services are prone to corruption and abuse, there is need to strengthen improvement in transparency and accountability in the private sector as well.

Conclusions

The research looked at a variety of issues in an attempt to comprehensively review the performance of management contracts in small towns in Uganda. In general, the manage-

ment contracts have resulted to an improvement in water services. There are a number of findings relating not only to performance of management contracts, but to private sector participation in water and sanitation management, that were identified during the research. The broad conclusions from the study are that:

1. Pricing of water to reflect the production costs in small towns is likely to be unaffordable to consumers, because of the technology of water supply (and thus high levels of service), and the small number of customer base.
2. Private sector participation through use of management contracts for delivery of water services to communities in small towns and rural growth centres can lead to substantial benefits to consumers as in large cities and municipalities. The quality of services in terms of reliability, accessibility, continuity of supply and water quality can be ensured and/or improved.
3. Private operators in management contracts assume no responsibility for capital investment, and the contract outputs are based on physical parameters. Consumers may have negative feelings on the entire PSP process if the service delivery is not improved based on responsibilities that fall in the domain of the contracting authority.
4. Contrary to common statements from various media, delegating management to private sector operators does not necessarily lead to increase in the cost of water to consumers. There are situations in which without changing the cost of water and maintaining the water quality standards, delegating management to the private sector can yield improvements in other components of service delivery such as reliability of services, ensuring continuity of water supply and substantially increasing the safe water coverage to the benefit of consumers.
5. The contracting authorities have the responsibility for providing general framework for service delivery to the poor and the disadvantaged of the community. Without this, community members without private connections can end up paying the highest bill per unit volume of water they consume.

With appropriate provisions in the management contract, the private operator can apply service differentiation and pricing strategies to ensure provision of affordable services to the poor in the community.

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