



Urban Water Provision in Sub-Saharan Africa: The Role of the Domestic Private Sector in Accelerating MDG Progress.

In the face of rapid urbanisation, public sector utilities in developing countries are experiencing growing demands for water services. Increasingly, the gap left in public service provision is being filled by small-scale domestic private providers. However, there is an unresolved debate: Proponents see such providers as pioneers and gap-fillers supplying vital services. Sceptics argue that small-scale providers are exploitative predators that charge high prices for poor quality water of unreliable frequency.

In 2010, UNDP's Poverty Group and Environment and Energy Group launched a joint project to examine to what extent the domestic private sector in sub-Saharan Africa (SSA) contributes to achieving the target for access to safe water under MDG7. The project carried out in-depth case studies of three countries – Kenya, Tanzania and Uganda. The studies are based on household and provider surveys as well as interviews with government officials and other stakeholders. Additional studies are planned for 2011, covering Angola, Burkina Faso, Mozambique and Senegal.

The findings of the case studies so far is that small-scale private providers increase water supply coverage and reduce time spent on fetching water, often providing a vital service, particularly for low-income households. However, in the absence of a coherent policy framework with effective tariff enforcement and water quality monitoring, small-scale providers often deliver services that are very costly and of varying quality. The three country studies are summarised below.

Small-Scale Private Water Providers in Kenya: Pioneers or Predators?

By Degol Hailu, Sara Rendtorff-Smith and Raquel Tsukada

In 2008, 83% of Kenyans living in urban areas, had access to safe drinking water – down from 91% in 1990. This gradual deterioration in urban water access is mainly due to growing demand caused by rapid population growth, especially in the informal settlements. According to UN HABITAT, in 2010, more than half of Nairobi's population lived in 200 informal settlements. Small-scale private water providers have entered

the market to fill the gap left in public service provision. This study examines what role they play in ensuring affordable, safe and reliable water supply. The main findings are:

First, there is a significant incidence of water deprivation among low-income households, with 57% of households surveyed consuming less than the water poverty line of 20 litres per capita per day. 63% of households spend well above the affordability threshold on water. Although the market seems to be operating well, there are signs of collusion on prices. Mobile vendors, such as push-carts and tanker trucks, charge the highest unit prices for water. Service providers within these categories also represent the highest degree of price differentiation among vendors.

Second, about 53% of the water provided by small-scale providers comes from 'other improved sources'. The ability of mobile vendors, such as push-carts and tanker trucks, to obtain water from a variety of sources allows them to supply water in times of shortage. This, however, also introduces an information gap. End users have little means of verifying the safety of the water they purchase. This is confirmed by our survey results, which indicate a divergence between respondents' perception of water quality and household disease history. The inferior-quality pipes used by illegal connections break easily. This means that initially safe water can get contaminated by externally running water, garbage and other toxic residuals.

Third, water supply is extremely unreliable, mainly because of extensive rationing by the utility company. Rationing, in turn, is partly the result of high unaccounted-for-water rates. All communities surveyed suffer from unreliable water provision by the utility provider. In the short run, water rationing leads to expectations of future water shortages, with households responding by storing water. This pushes up the demand for water beyond immediate consumption levels, further exacerbating water shortages.

In terms of policy interventions, key water sector institutions need capacity strengthening to: 1) Ensure the safety of water. A recent report by the Water Services Regulatory Board identifies institutional weaknesses in the quality assurance system. For instance, government officials inspect boreholes only once, at the time of granting licenses; 2) Expand connections to fixed-point water suppliers such as public taps and water kiosks. This would allow more households to shift from a reliance on mobile water vendors to purchasing water from fixed-point water sources, which are safer and more affordable; and 3) Tackle water rationing through repair of decaying infrastructure to

reduce leaks and through investments in the expansion of catchment capacity to increase supply.

Services and Supply Chains: The Role of Informal Water Vendors in Dar es Salaam

By Kate Bayliss and Rehema Tukai

This study explores the nature of informal water vendors in Dar es Salaam. Interviews were conducted with vendors in three areas of the city along the supply chain from the bulk sources via mobile vendors to end users. The key findings are:

First, prices increased dramatically with the introduction of additional links in the supply chain. The price mark-up covers transportation costs and additional profit layers. As expected, the cheapest water is provided through the utility's (DAWASCO) piped connections (US\$0.59/m³). The price is not much higher for water from a piped connection supplied by a private vendor (US\$0.92/m³). In contrast, water from a tanker truck is nearly US\$7/m³ and the most expensive water is bought in small quantities. A 20-litre jerry bought from a push-cart vendor can cost the equivalent of US\$17/m³. The system is extremely regressive with poor households at the end of the supply chain paying as much as 30 times the price of water from a piped connection, for water of questionable quality.

Second, low-income households adopt coping strategies to deal with the high price of water, often paying a premium for water provided by mobile vendors, which is not classified as 'improved' under the MDGs. Quality is unregulated for small-scale providers. It is very likely that these providers will cut corners on quality to maximize profits.

Third, contrary to the perception that water vendors make large profits, the vendors interviewed for the study did not appear to be making a great deal of money, although there were reports of some highly lucrative water businesses. As the market develops, it seems likely that market power will become increasingly concentrated, enabling rent extraction on a larger scale. Anecdotal reports of collusion between DAWASCO staff and water vendors indicate conditions for more extreme exploitation.

Policy intervention is urgently required to address the inequality in access to safe water. Ultimately, comprehensive coverage by a responsive public provider is required. Meanwhile, immediate options include: 1) Support for the private sector. This could include providing finance to strengthen small-scale piped networks and treatment to improve borehole water quality; 2) Support for community provision. This approach may provide water more cheaply than private vendors with less rent extraction; and 3) Learning from the private sector. Where low-income areas lack piped water infrastructure, an option is for the utility to provide water via its own tankers so that quality could be assured and revenue would reach the utility, and possibly fund future infrastructure investments.

Advisory Panel: Andrew Hudson, Alastair Morrison, Gonzalo Pizarro.

The Role of the Domestic Private Sector in the Delivery of Urban Water in Uganda: Contracts for Small Towns

By Kate Bayliss and Sam Kuloba Watasa

This study examines a recently implemented programme funded under the Global Partnership for Output Based Aid (GPOBA) in Uganda. Under the programme, firms were contracted to provide water connections for six small towns and to carry out construction of new water systems for four Rural Growth Centres (RGCs). The essence of the approach is that firms finance investment in connections in advance and receive reimbursements on the basis of agreed and verified outputs. The key findings are:

First, private firms are, on the whole, providing connections at a faster rate than was achieved under a central government-led process. Increasing the number of connections generates revenue, which directly affects profit. Since firms are not restricted by government procedures, implementation is faster. As a result, there has been a sharp fall in government subsidies for connections.

Second, the current system provides little incentive for water conservation or rainwater harvesting, or for reaching more difficult to serve households. Firms have an incentive to supply water in high volume, especially to commercial users, and disconnect those who cannot afford to pay.

Third, some towns are more commercially attractive than others, which may lead to cherry picking. In theory, this should balance out if firms bid for contracts, as unattractive towns will require a bigger subsidy. But in practice, even a large subsidy may fail to adequately compensate for the challenges of weak groundwater supplies and a mainly low-income customer base.

Fourth, OBA and private contracts do not address the pressing long-term requirement for investments in core water production and distribution infrastructure. For instance, many of the towns covered by OBA still suffer from water shortages. While the new contract structure may increase the private sector's incentive to provide connections, OBA does not provide a solution to longer-term investment needs.

In terms of policy intervention, there is a need to strengthen the regulatory framework. The local authority has little capacity to monitor the activities of the private operators. It is therefore essential to strengthen the monitoring capacity of local level regulators. It is also important to note that implementation of OBA in Uganda builds on long-term involvement with private operators in small towns, which has strengthened the capacity of both the Ministry and the private sector. Replication elsewhere might be difficult.

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