

## Output-Based Aid for Water Supply in Uganda *Increasing Access in Small Towns*

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**I**n Uganda small private companies have been operating water supply systems since 2001. A pilot output-based aid (OBA) project is expanding this approach. The project is leveraging private sector finance and expertise to provide access to piped water for an estimated 45,000 people in small towns and rural growth centers while increasing efficiency and accountability in the use of funds. About 8,100 people have benefited so far, and the government is exploring the use of OBA approaches as part of its national framework for water supply.

Uganda has 160 small towns and about 850 rural growth centers, with a total estimated population of 2.5 million. In 2008 safe water coverage extended to about 46 percent of the population in the 160 small towns, and systems functioned 89 percent of the time on average. The government's goal is to achieve 65 percent coverage and 95 percent functionality by 2015, and full coverage by 2035.

Before 1997 the central government, through the Directorate of Water Development—an agency under the Ministry of Water and Environment—ran all formal water supply systems in small towns, with little involvement by local authorities. This approach was considered unsustainable, as decisions were made far from the users and revenues were not ring-fenced. Ensuing sector reforms supported by the World Bank and other development partners emphasized improving the efficiency and quality of service delivery by separating asset ownership from operation and commercializing service delivery through an appropriate form of public-private partnership (PPP).

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Through a process drawing on consultation and past experience with decentralization, the institutional framework evolved from central control to a system of performance agreements between the ministry and local authorities, which delegate the management of the water systems to local private operators through one- to three-year management contracts. Today, private operators (about 20 are active in the sector) are managing 72 water supply systems.

Uganda's approach to private participation in small-town water supply has led to improvements in service quality and customer satisfaction and is widely seen as a model. Yet rising investment costs combined with affordability problems for users have limited the expansion of services to poorer segments of the population. Building on its experience so far, sector experts suggest, Uganda needs to develop a more sophisticated PPP arrangement

that allows greater transfer of risk to the private sector, to unlock innovation and efficiency and increase accountability.

Against this background an output-based aid (OBA) pilot project was conceived to test a new form of risk transfer mechanism that leverages private sector finance and expertise in system design, construction, and operation within the existing institutional framework.

## The output-based aid pilot scheme

In November 2005 the Ministry of Water and Environment approached the Global Partnership on Output-Based Aid (GPOBA) for help in designing and funding a pilot OBA scheme in small towns and rural growth centers. The rationale is to provide affordable safe water to new customers among poorer groups while promoting effective implementation, value for money, and private participation.

The scheme consists of 10 subprojects, 4 in rural growth centers and 6 in small towns.<sup>1</sup> In each one, a private company was selected on a competitive basis to implement a predefined investment program for improving the water supply system and to operate the extended system. In small towns the goal is to expand access by increasing active connections and extending the distribution networks and, where necessary, to increase the capacity for production, storage, or both. In rural growth centers the scheme involves the design, construction, operation, and maintenance of new piped water supply systems (greenfield installations). The scheme is expected to deliver 2,000 connections (yard taps and public kiosks), benefiting almost 45,000 people. The cost is covered through a US\$3.2 million grant from GPOBA, plus cofinancing of about 20 percent from user contributions and in some towns, a small share from conditional grants by the government to local water authorities.

## Key features

The OBA pilot, built largely on the existing institutional framework, differs from the more common arrangements in Uganda's small towns in several main ways:

- Rather than management contracts of 1–3 years, the OBA pilot involves design, build, and operate (DBO) contracts of 5 years for small towns and 7–10 years for rural growth centers.
- Tariffs are written into the DBO contracts along with simple escalation clauses. They are intended

to cover at least 10 percent of expected investment costs in rural growth centers and up to 30 percent in some small towns (whereas past tariffs covered no share of the costs).

- In small towns, where the scheme largely involves extending existing systems, the private operators are compensated for agreed investments after targeted connections have been made and independently verified. Some of the payment is withheld until after a period of water delivery demonstrated through bills paid. In rural growth centers the operators receive compensation in phases for intermediate outputs, although 45 percent is withheld until after verification of connections and a period of water delivery.
- The Ministry of Finance, Planning and Economic Development provided an exemption to work outside the budgeted “sector ceiling” and with a private fiduciary agent, as the GPOBA grant would be provided to local private operators based on output delivery and because the program is a pilot.
- An independent verification agent checks the quality and quantity of outputs and reports to the Ministry of Water and Environment and the private fiduciary agent.

The contractual arrangements for implementation and the flow of funds include three key agreements (figure 1):

- *A memorandum of understanding between GPOBA and the implementing agency, the Directorate of Water Development, which assigns specific roles to the directorate and other implementing stakeholders.*
- *A grant agreement between GPOBA and the fiduciary agent, which outlines the fiduciary agent's roles and responsibilities and sets out the rules governing financial management, disbursement of payments, and auditing for the project as well as those governing the release of funds to the private operators.*
- *An implementation agreement between the fiduciary agent and the Directorate of Water Development, under which the fiduciary agent delegates key implementing functions to the directorate and other implementing stakeholders.*

## Results so far

The Ministry of Water and Environment and local authorities signed DBO contracts in 2008 with each private operator winning a competitive tender in a

town or rural growth center. All 10 subprojects are have started to deliver outputs. Of the 2,000 targeted connections, 961 have been completed, all in the small towns. Of these, 450 yard taps have been verified, benefiting an estimated 8,100 people. Construction in the four rural growth centers is advanced, with intermediate outputs completed and verified in some (Azuba 2010; GPOBA 2010).

Already the OBA approach has shown clear benefits. The competitive bidding process (based on lowest subsidy required) resulted in a 20 percent average efficiency gain,<sup>2</sup> and in three of the towns the winning bidder proposed a zero subsidy, meaning that it would connect households solely for the expected tariff revenue.

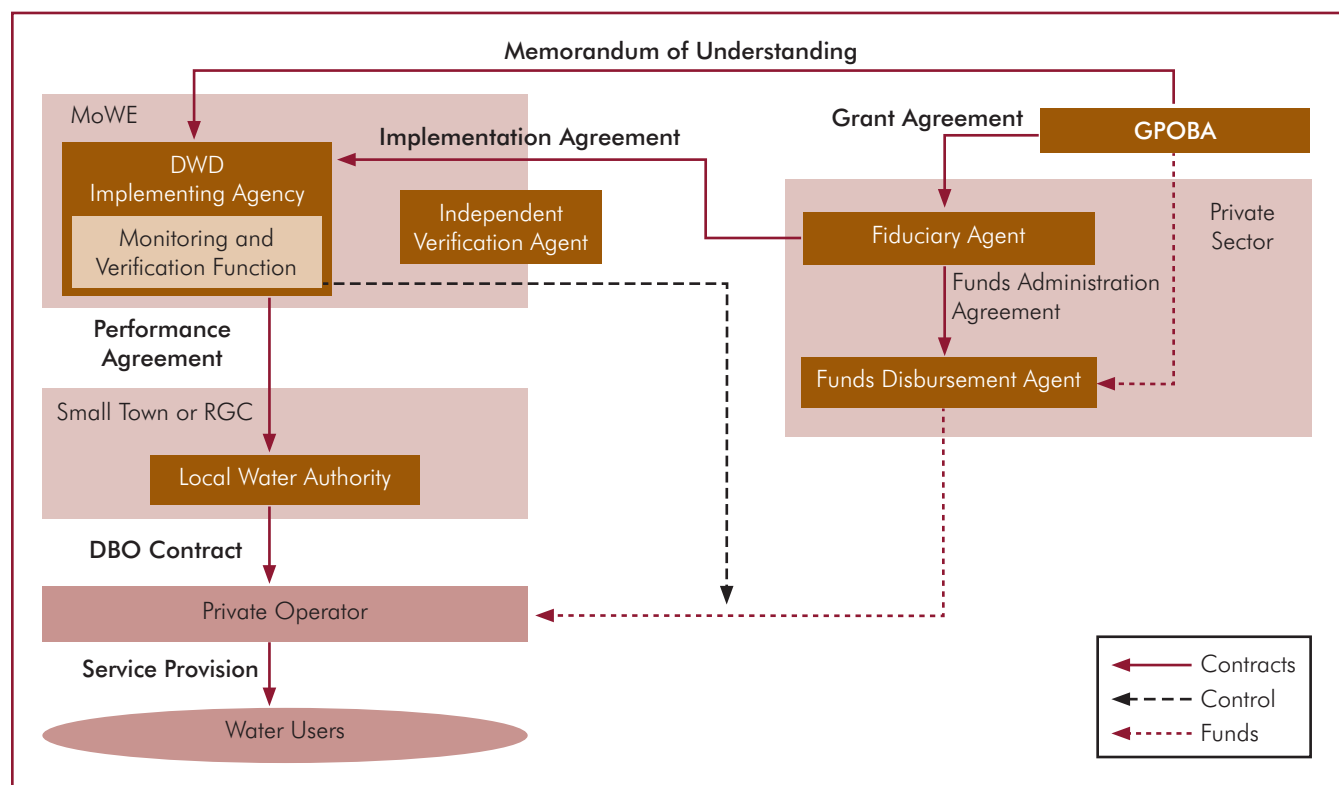
The OBA approach has also demonstrated several advantages over traditional approaches to investment. The subsidy per person gaining access is US\$0–36 (for extension projects) and US\$83–108 (for greenfield projects) in the OBA pilot, compared with US\$30–138 and US\$37–250 in traditional input-based projects (COWI 2009). The OBA pilot also has faster times for processing payment requests from operators and, generally, for getting to contract signature and from signature to completion of the operational system.

## Emerging lessons

Emerging lessons and challenges in this pilot could inform dialogue on scale-up in Uganda and elsewhere:

- The shift from input- to output-based approaches means new challenges for the public contracting authorities and the private operators and may necessitate capacity development for both.
- Private operators need affordable access to finance to “prefinance” investments before output-based disbursements are made. Some measures have been tried, including phasing in outputs to reduce the prefinance capital required and providing capacity building for private operators and local banks. So far, operators have relied more on their own cash and on working capital (such as supplier credit) than on bank loans. As they start to deliver results, some local banks have shown renewed interest in participating, but access to finance remains an important part of the “capacity building” gap.
- The project has faced significant delays, showing that the original estimated timeline was too ambitious and did not fully take into account potential delays in procurement and tendering.

**Figure 1. Institutional framework for pilot implementation**



Source: MoWE 2007.

- The project has higher advisory and financial intermediary costs (12 percent of the total subsidy amount) than traditional projects (4–8 percent)—not surprising for a pilot. Clustering of towns might lower some transaction costs and lead to additional economies of scale.
- The highly competitive bidding processes resulted in tight bid prices, leaving operators with little room to fund unexpected or emergency operational costs. The Ministry of Water and Environment is exploring ways to mitigate that outcome in the future.
- Given the ever-increasing constraints to available water resources, the risk related to availability need to be more carefully considered and shared between the providers, authorities and users.
- An OBA scale-up must carefully consider capacity to monitor and regulate private operators throughout the life of their contracts.

## Conclusion

Uganda's experience further demonstrates some of the advantages of the OBA approach in financing infrastructure services. By shifting performance risk to the service providers, the project has increased accountability for results and efficiency. Moreover, contrary to the view that the private sector has no appetite for risk taking in the water sector, the pilot has shown that relatively small private companies are willing to take on prefinance and performance risk and have strong incentives to roll out improved service quickly. The Ministry of Water and Environment has now adopted the DBO contract as one approach for private participation in the sector, a longer and more advanced form of PPP made possible by several years of experience with private participation.

Given the successes so far, as well as lessons learned regarding key challenges, the ministry has sought to explore OBA for its water supply development facilities (WSDF). The WSDF represent a shift from a segmented project approach toward a coherent national funding program and implementation framework for water supply in small towns and rural growth centers. The World Bank and GPOBA are working with the government and its development partners to explore how such an OBA scale-up would work in Uganda's small towns and rural growth centers.

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<sup>1</sup> An 11th subproject in a small town is being contracted out. The town fell under the technical assistance from the International Finance Corporation, which acted as transaction adviser for the Ministry of Water and Environment.

<sup>2</sup> Efficiency gain is based on budgeted subsidies calculated from existing unit costs and similar piped water schemes in Uganda.

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