



Public-private partnership: NWSC, Uganda

S.M. Kayaga and H.O. Onek, Uganda

PROVISION OF WATER supply/sanitation (watsan) to the public is a unique business, more so in low income countries. One of the reasons for the complexity is the ambiguity watsan services present to economic policy makers. Economically, watsan services can be classified as “public, merit goods”, able to meet basic needs with general benefits for all in terms of public health. Watsan services are also “private goods”, with excludable benefits which are desired for convenience and for commercial/industrial use as a basic resource (Franceys, 1997). The public health considerations justify direct involvement of, or strict supervision of quality standards by, a state agency. Secondly, watsan services require high initial construction costs coupled with large subsequent investment incremental costs for further expansion. These costs pre-empt coexistence of parallel providers, in effect making the business a natural monopoly. Furthermore, the per capita investment costs for watsan services are indirectly proportional to the population density, which, if not moderated by government policies, could promote an imbalance of service provision between the populated urban areas and the rest of the country side. It is therefore inevitable that for social equity

reasons, governments should get involved in the provision of watsan services.

Most of the water systems in Africa are government-owned, highly centralized and mainly government-controlled. Many of these water utilities, often called parastatals, are managed in a traditional civil service style, with minimal elements of commercialization. Experience has shown that most government agents in Africa are unable to manage enterprises on a commercial footing. It is therefore not surprising that most water utilities manage their water systems with high values of unaccounted-for-water (UFW). Figure 1 shows values of UFW for a few cities in Africa.

WHO estimates that as of 1994, only 64 per cent and 55 per cent of Africa's urban population is adequately served by water supply and sanitation, respectively (Warner, 1997). Various management scholars have alluded that the low efficiency and effectiveness of most African water utilities as depicted by high values of UFW and low service coverage, respectively, are mainly due to the supply-driven approach that is reminiscent of the traditional civil service administration. There is a strong conviction among management consultants that state agencies in low-income countries should limit their direct participation in operation and maintenance of watsan systems. Instead, state agencies should enhance their regulatory capacity to ensure provision of adequate levels of service to their citizens. It is therefore necessary to create a partnership with the private sector for efficient management of watsan services.

The private sector, with their clear motivation for profit-making, is seen to be more focused and better at escaping political interference, and able to use all techniques of the new managerialism. The private sector is envisaged to be more efficient in the utilization of human as well as material resources in order to cut down costs; it is believed to be more effective in achieving wide coverage in a bid to maximize sales; and probably able to acquire better sources of funding because it can be trusted to pay, and able to invest the funds more wisely (Franceys, 1997). However, these objectives can be converted into benefits for the services to the consumers only when the most appropriate form of Private Sector Participation (PSP) for the operating environment is identified, and regulation and contract monitoring is well managed.

NWSC's current perceptions on PSP

National Water and Sewerage Corporation (NWSC) of Uganda is a government-owned parastatal initially set up in 1972 and legally strengthened by Statute No. 8 of 1995, the

**Figure 1. UFW for water utilities
in selected cities in Africa**

Figure 2. Graph showing the trend of revenue collection in NWSC from 1994 to 1997

NWSC Statute to develop and operate water supply and sewerage services, on a self sustaining, national and commercial basis, in the designated areas of the country. Currently NWSC is responsible for provision of water supply and sewerage services in the capital city of Kampala and eleven other main towns of the country.

With the assistance of international grants and soft loans, NWSC embarked on the rehabilitation of its infrastructure in the later half of the 1980s, restoring the capacity utilization of the water treatment and sewage disposal plants. Furthermore, a five-year management development program was put in place in the early 1990s. These measures culminated into an efficiency gain in UFW (reduction) from about 75 per cent in 1990 to 55 per cent in 1997. However, since 1996, the rate of improvements in performance has been subjected to the economics principle of diminishing returns, depicting zero increment in some performance indicators, and a decline in others. Figure II shows the trend of revenue collection for the period 1994 to 1997.

Following the decline in corporate performance, NWSC management considered increase of PSP in the deliverance of the services, without changing ownership of assets. The authority for NWSC to appoint agents in order to enhance the achievement of its objectives and the performance of its functions is well highlighted in the NWSC statute, Section 6. Subsequently, PSP is well articulated in the current NWSC corporate plan, thus:

Carry out pilot private sector participation in five different (ranking from easy to difficult) geographical sectors of the water supply system in three towns and compile a manual
(Goal No 14, NWSC Corporate Plan 1997-2000)

Various PSP options are currently being tried as pilot projects in NWSC, with the objective of exploring the best option or combination that will enhance service delivery by NWSC. The projects have been described in the following sections.

Namasuba water supply project

Namasuba Water Supply Project (NWSP), financed by a loan provided under the French-Ugandan Protocol, is a pilot project designed to test the option of bulk supply of water services in an isolated zone of the Kampala Water Supply Service Area where the operations and maintenance as well as revenue collection will be managed by the private sector. Namasuba is an urban settlement area at the fringes of boundaries of Kampala City currently not served by NWSC. The construction period runs from May 1997 for a period of two years.

In the first phase, NWSC aims at constructing a water distribution network with a total pipe length of 20 kilometers, being served by a 270 m³ capacity reservoir tank. The reticulation network is designed to supply about 2000 m³ at seasonal peak demand, and expected to benefit about 5200 households. The second phase was initially meant to provide technical assistance for the creation of an independent users' management institution referred to as Namasuba Water Committee (NWC). However, following preliminary studies, it has been noted that since the users were not involved in the early design stages of the project, and are not well mobilized, community management may not succeed. Consideration is now being given for entering a lease contract with a local interested firm, through a process of selective tendering. The successful firm will receive technical assistance for initial mobilization from the project.

Under the lease contract, NWSC will retain ownership of the assets, supply at a price treated water in bulk to the contractor, and play a regulatory role. The contractor will manage operation and maintenance of the project area water supply system, bill for the services, and collect user fees. NWSC is carrying out a willingness-to-pay study in the project area, which is currently at analysis stage. NWSC is currently in the process of pre-qualification of contractors/entrepreneurs for the lease contract.

Kampala revenue improvement project

Kampala Water Supply Area (KWSSA) forms 68 per cent of NWSC total operations and accounts for the same proportion of the Corporation's revenue base. Kampala Revenue Improvement Project (KRIP) is a management contract made between NWSC (the employer) and H. P. Gauff Ingenieure GMBH & Co. of Germany (the firm), and effective from January 1998 for a period of 42 months. KRIP seeks to commercialize water distribution operation and maintenance, meter reading, billing and revenue collection services in KWSSA. The first six months is a transitional phase to ensure smooth and systematic assumption of responsibility by the firm.

Appropriate performance indicators have been developed to monitor and evaluate the performance of the project. Under the contract, the firm is expected to carry out the following water sales activities:

- Develop the existing Geographical Information System (GIS) and the Billing System into a user-friendly, customer-oriented Management Information System
- Improve the hardware and software qualities for the Billing System
- Improve the water meter reading and billing procedures, as well as the system for analysis and monitoring of receipts
- Develop better methods for analysis and collection of accumulated arrears
- Enhance customer care activities

Under the scope of water supply operation and maintenance activities, KRIP is expected to address the following:

- Cover all the supply zones with bulk metering and carry out pressure monitoring in all the zones
- Complete the process of interconnections between high and low levels, and between the various zones
- Reduce water losses on the communication pipes by replacing connecting ferrules by saddle pieces; and enhance quality control through standardization of materials
- Improvement of waste monitoring and control procedures; and rationalization of water tanker supply points
- Updating of records and maps
- Improve routine maintenance procedures
- Reduction of reaction times of breakdown maintenance by setting up and facilitating a 24-hour emergency repair gang
- Increasing the rate of new house connections to about 3000 per annum

To carry out these tasks, the firm is operating through an independent locally registered company comprising of senior professional staff to be assisted by a team of short-term experts, legal advisors and auditors. NWSC has seconded all suitable personnel that were employed in the activities within KWSSA prior to the contract coming into force. The firm is remunerated by appropriate basic management fees paid in monthly instalments, as well as incentive fees which depend on surplus funds realized over and above the projected NWSC revenue growth rate during the project period.

Nanso community pilot project

Nanso village is a peri-urban location situated in Jinja Water Supply Service Area (JWSSA) and has a surface coverage of about 5 square kilometers with a population of about 900 people. Nanso Community Pilot Project seeks to improve the water supply and sanitation service coverage of the residents through a demand driven and affordability approach. The immediate aim is to ensure sustainability of the services by developing a sound framework for community management of water and sanitation facilities through the implementation of the pilot project. In addition to providing clean water supply through house connections, yardtaps and public standpipes, the scope of the project also covers provision of on-site sanitation facilities such as

VIP latrines and sealed lid latrines. The majority of residents, though low-income earners, are landlords owning an average of two acres each. Most of the residents are retired sugar plantation workers and have shown enthusiasm in participating in the project.

Currently piped water is supplied from JWSSA through a 4" main pipeline. Of the total 94 households in the project area, only 14 households have active house connections, while only 19 yardtaps are active. Most households draw their water supply from standpipes unevenly distributed in the area. The average household consumption is expected to raise from 8 m³/month in 1996 to 12 m³/month in the year 2005.

The beneficiaries have been involved in the project since its inception. Water and Sanitation Committees (WSC) have been popularly elected after community sensitization by social workers. WSC, composed of a Chairman, Secretary, Treasurer and two committee members will utilize participatory management methods to handle management of operation and maintenance of the watsan systems, and all financial matters. WSC will take full responsibility for the water system right from the point of a bulk meter to be installed at the boundary of the pilot project area. WSC will also oversee the construction of at least 33 single family VIP latrines.

At the time of writing, the process for registering the WSC into a legal entity was in progress. Thereafter, a joint venture between WSC and NWSC will be entered into, on the basis of which equity will be mobilized to carry out construction works. The residents, through the committee members, are expected to participate at the construction stage.

The way forward for NWSC

Apart from the above pilot projects, another project in its inception stage is the Jinja Performance Enhancement Project (JPEP) which seeks to test the option of performance contracts. NWSC management views PSP in the operation and maintenance of the watsan systems as a means of enhancing the efficiency and effectiveness of service provision to the urban residents in the country. It is an open fact that water vendors, who are informal private sector participants, provide services to most lowest income groups in low income urban areas. The vendors provide the services at abnormally high prices, while the public sector meets the convenience needs of higher income groups at below the real cost. NWSC management seeks to change the current situation.

PSP, it is hoped, will inject the much desired performance oriented management in the water sector, replacing the 'social welfare' engineering provision approach to a demand driven, customer oriented management. As a result of the anticipated efficiency gains, the service coverage will be extended for the benefit of the economically disadvantaged living in the peri-urban fringes of our service areas. This is in line with the theme of this conference, "Sanitation and Water for All". What is not so clear at the moment is

the form of public-private partnership that will deliver results given the macro- and task-environment in which NWSC operates. It hoped that the ongoing pilot projects will provide the answer.

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HILARY O. ONEK, National Water and Sewerage Corporation (NWSC), Uganda.

SAM M. KAYAGA, National Water and Sewerage Corporation (NWSC), Uganda.
