



Standpipe maintenance in Luanda, Angola



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THIS PAPER DESCRIBES the experience of a community-based standpost maintenance system which was pilot-tested at 17 standposts in Luanda, Angola. The system was implemented with the joint collaboration of: the standpost users, the Provincial Water Company (EPAL), the Rangel Municipal Administration and the NGO Development Workshop (DW).

Background

Development Workshop has been building public standposts in Luanda together with EPAL since 1992, as part of their on-going Luanda Peri-urban Water Programme. To this date, over 150 standposts have been constructed, in five of the nine municipalities in Luanda. Two standpost designs have been developed which have proved: popular with women, cost efficient, durable, and environmentally suitable.

DW has also developed models of community-based management and cost recovery based on elected water committees (usually one committee per standpost). Each of these committees manages a maintenance fund collected through user fees. There are two different ways in which these fees are currently collected. Some standpost committees use a monthly fee which entitles all registered standpost users to collect water for one month for a flat fee. Other committees use a daily fee, which entitles people to collect water for the day. The fee is only paid on the days when water flows at the standpost and is controlled through tickets issued by a water monitor (standpost caretaker).

From an evaluation conducted in 1996 (by DW), it appeared that the monthly payment system described above was not collecting sufficient user fees to cover all the standpost maintenance costs, and that a significant increase (about five fold) in the user fees was necessary to cover all costs. After consultation with water committee members, DW concluded that many standpost users were unable or unwilling to make monthly payments of this magnitude (about \$1.50/month) in one lump sum, and that daily payments (about \$0.05 to \$0.10 per day) were more feasible.

Therefore, a pilot project was designed to test the feasibility of introducing a new higher daily user fee that would be sufficient to:

- enable EPAL to recover the costs of water production, treatment, and distribution;
- provide a reasonable salary to standpost caretakers;
- generate sufficient funds for regular standpost maintenance, including the purchase of new taps as required;

- provide a source of revenue to the municipal government to cover the cost of the system's administration.

Description of pilot model

The pilot project attempted to introduce daily user fees at 17 standposts in Rangel Municipality beginning in August 1996. After consultation with all implementing partners, the fee was set at KZR 10,000 (\$0.05 - Sept 1996) per day per household. This entitled any member of the household that paid the fee to collect water for the entire day (from the standpost to which they paid the fee). The fees were collected by a water monitor who was elected by the registered standpost users. The water monitor opens and closes the standpost each day (using an isolation valve located in a locked valve box) and remains at the standpost the entire day. The water monitor provides a receipt for every payment using tickets provided by the municipal administration. The fees collected are kept by the water monitor (or another member of the standpost committee) until the end of the month. At the end of the month, the committee takes the money collected to the municipal administration where the money is divided up as described below.

Twenty per cent (20 per cent) of the money collected is given to the municipal administration to cover the costs of administration (e.g. printing the daily tickets) and to create a community rehabilitation fund. The municipal administration provides a receipt to the water monitor as well as a declaration to certify the amount of money collected during the month.

Thirty per cent (30 per cent) of the money collected is given to EPAL to pay for the water supplied. At the end of each month this money is taken by a member of the standpost committee directly to EPAL, together with the declaration from the municipal administration certifying the amount collected during the month.

Twenty-five per cent (25 per cent) of the money collected is given to the water monitor as a salary for her work done during the month. The remaining twenty-five per cent (25 per cent) of the money collected during the month is kept in a standpost maintenance fund. This fund is kept by a member of the standpost committee and is used to buy new taps as required and make other expenditures necessary to maintain the standpost in good working condition. The standpost maintenance fund can also be used for other expenditures approved by a majority of registered standpost users.

Table 1. Average amount collected, payments made to EPAL and payments made to the municipal administration each month

	Avg. amount collected during month	Payments to EPAL	Payments to mun. admin.
Aug. 96	\$20.43	\$5.60	\$5.79
Sep. 96	\$21.55	\$5.44	\$4.39
Oct. 96	\$21.53	*\$6.46	*\$4.31
Nov. 96	\$23.72	*\$7.12	*\$4.74
Dec. 96	\$11.61	*\$3.48	*\$2.32
Jan. 96	\$20.05	*\$6.02	*\$4.01
Feb. 96	\$23.72	*\$7.12	*\$4.74
Avg.	\$20.37	\$5.98	\$4.33

*calculated as 30% and 20% respectively of amount collected

Results

From Table 1, the average amount collected each month by the standpost committee was KZR 4,157,815 (US\$20.37). Although the daily fee was established at the outset at KZR 10,000 (\$0.05), some of the committees decided to increase the fee to KZR 20,000 (\$0.10) in order to provide the caretaker with a more substantial salary. Therefore, the average ticket price during the pilot period was KZR 15,000 (US\$ 0.07). If we assume that each user took an

Table 2. Impact on new system on standpost maintenance funds

	Standposts w/ all taps in good condition	All components (excl. taps) in good condition	Avg. value of maintenance fund
May 96	59%	41%	\$3.00
Jun. 96	76%	82%	\$4.18
Jul. 96	82%	82%	\$4.36
Aug. 96	88%	82%	\$9.17
Sep. 96	76%	94%	\$14.24
Oct. 96	71%	76%	\$20.12
Nov. 96	76%	76%	\$20.66
Dec. 96	71%	82%	\$16.73
Jan. 97	71%	88%	\$25.06
Feb. 97	71%	88%	\$28.12

average of five buckets (100L) of water for each ticket purchased, the price to the consumer was, on average, \$0.70/m3. From DW's monitoring unit, the private vendors in the same area charged an average of \$6.82/m3 (870 per cent higher) during the period of August 1996 to February 1997¹. Obviously, the standposts provide a significant cost saving for most households.

During the pilot period EPAL received an average of \$5.89 per standpost per month. Using the same assumption as above, that each ticket represents five buckets (100 L) of water, the average return to EPAL was \$0.12/m3. While this is not likely to cover the real costs of production, treatment, and distribution, it is still a significant contribution. In fact, at the official price \$0.12 would buy 8000 m3 of water, meaning that standpost users are paying 8000 times more to EPAL than people with household connections.

There are indications that some committees may increase the daily fee to KZR 50,000 (US \$0.25). This will significantly increase the income that both EPAL and the municipal administrations will receive each month and may come close to covering the actual costs to EPAL of producing, treating, and distributing the water.

Table 2 shows data for the trial period as well as the three months prior to the start of the pilot test. As the fourth column clearly shows, the daily cost recovery system has enabled the standpost committees to dramatically increase the value of the standpost maintenance funds. Furthermore, it appears that the extra money is, indeed, being used to improve the conditions at the standposts. The increased value of the standpost maintenance funds has also enabled most committees to pay a significant salary to the standpost caretaker, reducing cases of vandalism and misuse.

Another important, albeit less tangible, outcome of the new tripartite arrangement between the water committees, EPAL, and local government is that communities have been empowered to deal directly with service providers in the area of a priority of need: water. All of the payments are made directly by the community and each user group has a separate contract with the water company. This arrangement has helped empower slum dwellers to access improved basic services by helping individuals form groups which have more power and confidence to make claims on both EPAL and their local government. Women, in particular, have been prepared to articulate their opinions and are frequently the most committed members of the user committees. About 65 per cent of the members of the elected water committees are currently women.

Problems encountered

The amounts collected by some of the standpost committees during the pilot period was lower than expected. It is not clear if this is due to:

- people taking water without paying;
- standpost monitors selling water without giving tickets as receipts;
- fewer users at the standposts that originally estimated;
- a combination of all these factors.

Clearly, the fact that water did not flow every day at all of the standposts accounts for some of the variations in money collected between standposts. For example, the seventeen standposts in the pilot area had an average of 23 days of water flow during November 1996, with an average flow of 24 L/min. However, one of the standposts (no. 13) had water every day during the month, with an average flow of 40 L/min. Another of the standposts (no. 45) received water on only 14 days during the month, with an average flow of only 10 L/min. As expected, the standpost with the most flow (no. 13) collected much more money than the standpost with the lowest flow (no. 45), \$35.00 versus \$12.50 respectively.

There was also a problem during the trial period in controlling the amount of water taken by large households. In some cases, three or four adult members of a single household used the same ticket to collect water during the day, claiming that since they belonged to a single household, they were all entitled to use the ticket purchased by that household. One recommendation from the committee members has been to demand that every adult who collects water must have their own ticket. This would force larger households to pay more towards the maintenance of the standpost than smaller families.

Conclusions

In general, the results of the pilot test were positive. The daily system enables people to distribute their expendi-

tures on water over the entire month, thereby reducing the need for large, one time payments. Secondly the system appears to have been successful in increasing (significantly) the amount of money collected by the standpost committees, which has enabled standpost committees to better maintain the standposts. Thirdly, and perhaps most importantly, the system encourages all three actors (standpost users, EPAL, and local government) to become stakeholders in the standpost management process. Each stakeholder has a financial interest in ensuring that the water is available and distributed to users every day. Furthermore, each stakeholder has a direct interest in ensuring the maintenance of the standpost.

References

DEVELOPMENT WORKSHOP, 1995, Water Supply and Sanitation in Luanda: Informal Sector Study and Beneficiary Assessment, Report Prepared for the World Bank, June 1995.

- ¹ These vendors sell water by the bucket from underground water tanks in their yards. There are an estimated 10,000 of these vendors in Luanda (DW, 1995).

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