RESEARCH – NAKURU SITE VISIT NOTES

Dates: 26th November 2012
Locations visited: Nakuru (Manyani & Lakeview)

Attendees: Han Seur (HN) – Water Services Trust Fund (WSTF)
Lawrence Ojwang (LO) – WSTF Field Monitor
Yolanda Chakava (YC) – Cranfield / Haki Water
Rachel Wako (RO) – Haki Water

Key Informant interviews – James Nganga (JN), Technical Manager Nakuru Water and Sanitation Services Company (NAWASSCO).

 HS provided transportation to and from Nakuru.

1 WSTF/ NAWASSCO Project Overview

The pre-paid meter system is aimed at improving access to urban poor customers who often have difficulty meeting monthly bills and battle with disconnections and reconnection costs; and/or are forced to rely on alternative poor quality sources, often at high unregulated prices.

The pilot project in Nakuru has been funded by the WSTF and implemented by NAWASSCO. As part of this pilot, 15 prepaid meters at public water points have been successfully constructed in Manyani, serving 15 -20 households (HH) per plot (average HH has 4 people). JM confirmed the pilots have now been in operation for 3 months.

The second phase of the project is underway in partnership with SUWASA, to implement 80 additional prepaid meters in Nakuru’s low-income settlements. At the time of our visit, JN confirmed 28 SUWASA meters had been installed.

1.1 Project Description (Key Informant Interview)

Discussions at NAWASSCO Head Office in town.

Under the pilot initiative, urban poor communities have been provided with prepaid meters at public standposts where they can purchase water at a regulated cost of kes 1.2 per 20 litre jerry can (previously kes 2 from kiosks), using personal tokens which are allocated per HH.

The complete Elser Kent technology to operate the system has been imported from South Africa. Nairobi Ironmongers has been trained as the local Contractor and is responsible for supply of materials, installation, training for staff operatives and trouble-shooting. JN estimated the construction costs of the prepaid meter at kes 70,000 (kes 60,000 for the
standpost and kes 10,000 for the base). Noted this was significantly cheaper than NAWASSCO kiosk construction, estimated at kes 500,000 per kiosk.

To connect to this system, customers complete a registration form obtained from the nearest regional office and pay NAWASSCO a refundable deposit of kes 300 for the token (market price is kes 1,100). Forms are usually processed and tokens ready for collection within one working day. To load the tokens, customers must visit the regional office - most people top-up in multiples of Kes 50. JN confirmed efforts made to conduct HH visits to top-up were not successful, as most people were not home during the day.

Usage of the token is not restricted per plot, currently the system allows tokens to be used in any prepaid meter. JN and LO confirmed as part of the second phase to upscale the project, the prepaid meters will serve a wider catchment of up to 40 people. Lessons learned from the first 15 pilots indicated the standposts were underutilised when restricted to plots of 15-20 HH’s.

- **Summary of NAWASSCO Advantages**: recovering revenue from ‘new customers’ that were previously underserved or not able to pay; less staff resources required; the stress of dealing with customers disconnections and reconnections has been minimised.

- **Summary of NAWASSCO Disadvantages**: landlords refusing to reduce the rent of tenants previously paying water bills inclusive of rent, therefore tenants are not experiencing the full savings from adopting the prepaid system; slow uptake of tokens; shortages in overall water supply.

### 1.2 Water Choices Kiosk Discussions

YC and HS explained the work undertaken by Cranfield University students to develop an innovative kiosk design with service ladder options, incorporating the use of the prepaid system. HS requested JN to consider potential sites for the pilot, where two kiosks can be built. JN confirmed this was possible and would identify suitable sites for consideration. LO requested drawings of the designs.

In discussing possible locations, JN confirmed water is currently rationed in Nakuru low-income areas. In some parts water is available for 8 hours per day (Rhonda/Kamtemba) and in other parts water is available for 3 days per week. The overall current demand is 70,000 cubic meters per day and supply is 40,000 cubic meters a day, leaving a shortfall of 30,000 cubic meters daily, with the low-income areas suffering the most.

Although future plans for a dam are underway, NAWASSCO is considering options to minimise the impacts of the shortages, particularly in considering plans to upscale the prepaid system. Options include establishing dedicated lines to low-income areas? Increasing the storage capacity?
JN also proposed the low-income council housing would be an ideal area for prepaid technology, as they currently do not pay for water (i.e. revenue of kes 50 for water bill paid directly to the council is not recovered by NAWASSCO).

In Nakuru suburbs, the regulated tariff structure is as follows:

- 0 – 6 m$^3$ = kes 200
- 7 – 20 m$^3$ = an additional kes 50 per m$^3$

A refundable deposit of kes 2,500 is paid for connection, along with a kes 200 non-refundable application fee.

2 Field Visit Interviews & Observations

2.1 NAWASSCO Regional Office – Manyani

- Site operatives confirmed the system is working well so far. Approximately 15 – 20 customers top-up per day.
- Most customers load credit in denominations of kes 50.
- The busiest day for transactions is Friday, as the office is closed over the weekend.
- From the estimated 400 tokens in circulation (WSTF & SUWASA combined), only two have been reported lost. Each token has a security mainframe system with a serial number to identify the individual the token has been allocated to within the system.
- Over the duration of our visit (approximately 15 minutes), it was observed 5 people visited the office to top-up and 1 person visited to apply for the token. Topping-up was very fast, approximately 2 mins per customer.

2.2 Site Visits (2 sites) & SUWASA (1 site)

2.2.1 Advantages:

- The landladies at Site 1 and Site 3 were present at the time of our visit. Explained prior to the prepaid system, tenants were not paying their water bills. The bills were read from one single meter covering the whole plot, making it very difficult to confirm who pays for what. The landlady would be disconnected and left to pay bills ranging from kes 15,000 to as high as kes 26,000 per month. Now she is only responsible for paying for what she uses and her bills average at kes 900 per month. There is now less conflict between tenants and landlords.
- Reduced cost of water is more affordable for community members, who do not have to undergo the anxiety of disconnection and burden of reconnection costs.
- Less water wastage at the standposts. People are more careful paying for the amount they use. At Site 1, HS confirmed less standing water was visible at the base of the standpost from his last visit to the plot (pre-construction).
- No queuing for water and long waiting times anymore. Water is accessible at anytime.
- Reduced conflict between tenants at the standposts.
- Very convenient as water can be obtained any time.
- Community ownership – landlady at Site 1 had incorporated her own security measures at her cost.

2.2.2 Disadvantages:
- HS noted that since the prepaid system had been introduced, the storage tank and showers were no longer in use – drop in service.
- Long walking distances observed to the nearest NAWASSCO regional office to top-up.

3 Opportunities & Threats

3.1 Researcher Observations
- Nakuru low-income settlements vary greatly in character. Site 1 & 2 comprised of well built-up demarcated structures. The plot areas were generally very clean and tidy.
- Site 3 was surrounded by more informal structures, sparsely populated, feeling more ‘rural’ in nature, yet located in close proximity to the town centre.

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<tr>
<th>Site 1</th>
<th>Site 3</th>
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<td><img src="image1" alt="Site 1 Standpost" /></td>
<td><img src="image2" alt="Site 3" /></td>
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3.2 Opportunities
- Access to an affordable water supply at any time.
- Tariff is regulated – cannot increase during droughts or at vendors/landlords discretion.
- Plots consist of significant numbers of children – possible to integrate hygiene messages with prepaid system.
- Water Choices kiosks present strong potential to combine main impacts from prepaid system (cost) with reduced effort/burden from carrying water.
- HS to advise on materials to reduce to construction cost of the water choices kiosk to within the range 1,000 – 2,000 Euros.

### 3.3 Threats
- Lack of cooperation from landlords and cartels, due to decreased cost of water.
- Vandalism for community members.
- Technology is still relatively new – maintenance issues may arise as project develops e.g. rigid hose pipe causing leakages. Flexible, but strong hose-pies needed.

### 3.4 Actions
- JN to identify potential sites for water choices kiosks and inform the WSTF (HS & LO).
  WSTF to inform YC.
- YC to send JN drawings
- HS to introduce YC to Anastasia for access to basline surveys (70HH’s) and recently completed consumer satisfaction surveys (70HH’s).
- HS to circulate field report.