wsp
water and
sanitation program

The Water and Sanitation Program is an international partnership for improving water and sanitation sector policies, practices, and capacities to serve poor people

June 2005

Field Note

Serving the Urban Poor

33063

Rogues No More? Water Kiosk Operators Achieve Credibility in Kibera

This field note describes practical actions taken to formalize the independent marketplace of water kiosk operators serving poor households in a large urban settlement in Nairobi, Kenya. The establishment of an association enabled a large group of local water operators to find common ground and work together to improve their credibility, start a process of regulating their own service and begin to develop a productive dialogue with the utility.

Executive Summary

In the informal settlement of Kibera in Nairobi, Kenya, more than half a million poor people have little or no access to the utility water supply. Instead, their demand for water is met by a burgeoning informal water market in which more than 650 local entrepreneurs sell water through kiosks scattered throughout the settlement.

In the context of wider sector reforms in Kenya, this field note describes the practical actions that were taken to create a bridge linking this independent marketplace and the utility. In particular, the establishment of an association of local water providers enabled the otherwise disparate entrepreneurs to act in unison and thereby promote self-regulation, improve their credibility and develop relations with the utility.

The result is a better business environment for the providers, less leakage for the utility, and most importantly, greater accountability to customers - all important steps in developing better water services for the poor.

Introduction

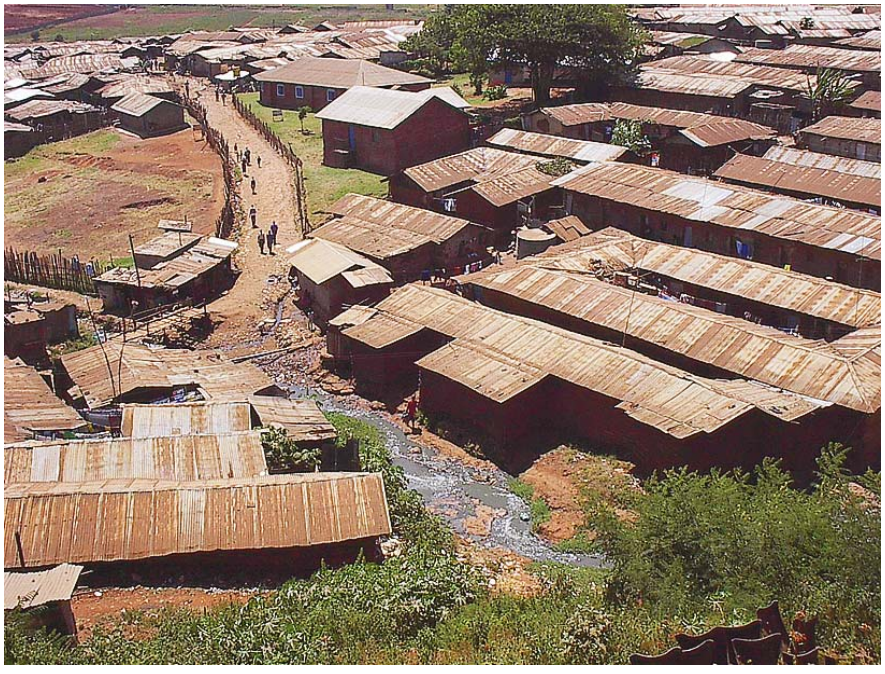
In Africa, informal settlements are enormous, growing rapidly and underserved. By 2020 it is estimated that more than half of the people of Africa will reside in urban areas, increasing the present urban population from 300 million to 700 million[1]. The high rates of urbanization, coupled with low rates of economic growth, suggest that this population growth will predominantly occur in the sprawling and underserved informal settlements — where about two-thirds of the people in African cities currently live, most without access to basic water supply, sanitation and electricity services.

These data highlight the immensity of the problem and the urgency with which governments, donors and other stakeholders should tackle the practical problems constraining service delivery to the urban poor.

Public utilities in African cities have seldom expanded water supply networks into these informal settlements, despite being home to a significant proportion of the urban population. Most efforts to serve the urban poor in marginalized communities have been limited to the provision of a few standpipes, delivery by water tankers or other makeshift arrangements.

Kenya is no exception. The major cities of the country have large and rapidly-growing informal settlements, and struggling utilities. The institutional arrangements for water supply have been weak, resulting in a cycle of declining investment, deteriorating service, and diminishing financial returns.

Water supply provision in Kenya is characterized by low coverage, unreliable service, poor financial



A glimpse of the sprawling informal settlement in Kibera, Nairobi

[1] WUP, 1998

management, and neglected operation and maintenance. This has translated into generally inadequate services which are particularly lacking for the urban poor.

New climate for reform

Political changes in 2002 ushered in a new climate of reform in Kenya. The new government's policies focus on good governance, devolution and a positive investment environment. Kenya has produced a Poverty Reduction Strategy Paper, entitled "Economic Strategy for Wealth and Employment Creation". It emphasizes poverty reduction through job creation, investment in people, social protection and good governance. A key pillar of the National Poverty Eradication Plan is improved access to basic social services in conjunction with broad-based economic growth.

Most efforts to serve Kibera residents have been limited to the provision of a few standpipes

A push for good governance to stimulate economic growth and provide better services has also had an impact in the water sector. A new water policy came into effect in 1999, redefining the role of the government to focus on regulatory and enabling functions rather than direct service provision.

The government plans to emphasize supporting private sector participation and community management of services, rather than continue subsidizing inefficient utilities with public funds.

The key principles of the reform are:

- Separation of policy, regulation and service provision
- Separation of water resource management from provision of water and sewerage services
- Devolution of responsibilities for water resource management and water service provision to the local level
- Enhancing the sustainability of service provision.

The Water Act of 2002 (enacted in March 2003) lays the legal framework for implementing the policy and sets up the institutions required. Executive authority has been devolved to new institutions.

The Water Services Regulatory Board is responsible for water supply and sewerage and the Water Resources Management Authority for water resources.

Responsibility for water services provision is vested in Water Service Boards, under the regulation of the Water Services Regulatory Board, and the Act provides for licensing of Water Service Providers by these boards. Seven Water Boards have already been established across Kenya, with one for Nairobi. The Nairobi Water and Sewerage Company (the utility) was created from the former Water and Sewerage Department of the Nairobi City Council and, since August 2004, has been the principal Water Service Provider to the city.

Challenges for Nairobi's Water Utility

Water supply in Nairobi has been plagued for many years with inefficiency and complex management and logistical problems. This has led to inadequate water services, with the poor suffering the most. A 2002 study[2] identified both the physical state of the infrastructure and poor management as key constraints.

Although the utility supplies 392,000 cubic meters each day and consumption is only 350,000 cubic meters, there are constant shortages and service interruptions. Of those that are presently served by the utility, 40 percent do not receive a 24-hour supply. Some 30 percent receive water once in two days while 10 percent receive water only once a week[3]. Unaccounted-for-water is over 50 percent of the total volume of treated water produced.

Much of the unaccounted-for-water results from physical leakage, and the rest is due to water theft and failure to bill, essentially as a result of mismanagement. The new Nairobi Water and Sewerage Company is tasked with improving this situation.

Only about 187,000 or 42 percent of the total households in Nairobi have legal water connections. Nearly all others, largely poor households, obtain water from kiosks, water delivery services and illegal connections. Although a few kiosk owners have private tubewells, the water purchased from vendors is usually originally sourced from the network.

A kiosk for retailing water

Household surveys[4] in Kenya reveal that poor households spend 45 minutes on average collecting water every day while the non-poor spend only 18 minutes. The time spent on collection per day varies significantly based on the level of service. Households with private connections spend about five minutes. Those with yard taps spend 15 minutes, and those relying on kiosks spend as much as 55 minutes collecting water.

The tariff structure in force in Nairobi is an increasing block tariff (see Table 1). The official water tariff provides little indication of what people are actually paying, however. Despite low average water use, estimated at only 40 liters per capita per day, households are paying remarkably high unit prices for water. The average cost is estimated to be Ksh260 per cubic meter (US$3.50)[6]. The main reason behind these high prices is that households are buying water from on-sellers such as tankers, kiosks and water delivery services.

Table 1: Water Tariff for Nairobi City[5]

	Block 1	Block 2	Block 3	Block 4
Consumption – m^3	0-10	10-30	30-60	> 60
Tariff – Ksh/ m^3	12	18	28	35
Tariff – US$/ m^3	0.16	0.24	0.37	0.47

[2] PPIAF, 2002
[3] PPIAF, 2002
[4] WSP, 1997
[5] US$1 is equivalent to approximately Ksh 75
[6] World Bank, 2004

Despite the utility's attempts to deliver a subsidy through the tariff, there is evidence that the poor, who are more likely to rely on water sold by third parties, pay more per unit of water[7].

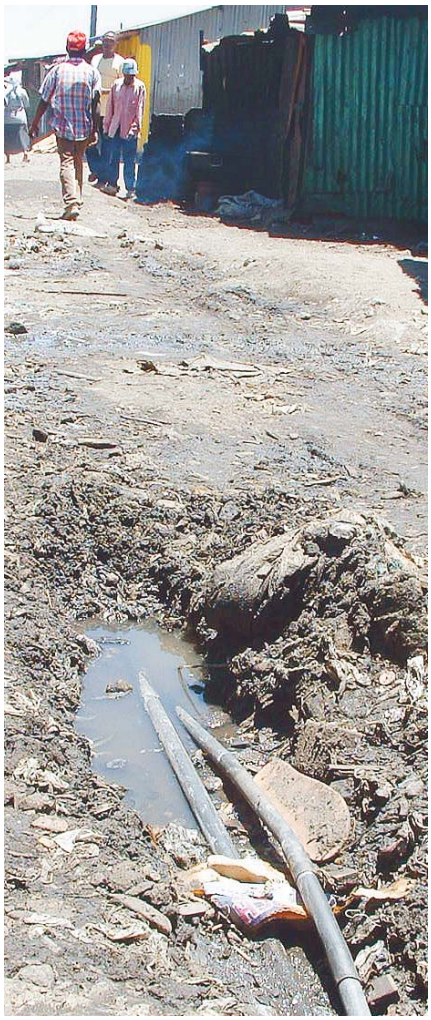
In an attempt to partially address the problem, the utility has established a flat rate of Ksh10 per cubic meter for bulk supply to water kiosks serving informal settlements. However, this has not been effective in bringing down costs to consumers as few kiosk operators are actually billed at this rate as they often end up being charged the regular domestic tariff (for reasons that will be explained below).

As consumption is high, this pushes the price of water into the highest blocks of the tariff. These costs, as well as the investment costs and overheads incurred by the kiosk operators, translate into very high prices at kiosks.

Stark reality of Kibera

Kibera is the largest and most densely populated informal settlement in sub-Saharan Africa. With an estimated population of at least 500,000, the informal settlement of Kibera is home to at least a quarter of the population of Nairobi. It covers an area of about 250 hectares, with a density of more than 2,000 people per hectare[8].

Kibera supplies labor to the nearby industrial area and more affluent residential neighborhoods. Despite its large population and strategic importance in the economy of the city, Kibera has been provided with few services, and most residents have no land tenure. Inadequate water supply and sanitation are serious environmental challenges faced by those living in Kibera[9].



Pipes supplying water kiosks find their way through sludge and solid waste

Despite attempts in 1988 to 'infill' the water supply network, there are still only approximately 25 kilometers of piped network in the entire settlement, and much of this network receives little or no water.

Kibera gets less water than other settlements in proportion to its size for two main reasons. One is the limited capacity of the pumping station on the trunk main feeding this part of the city, and the other is the tendency to divert available water to neighboring high income areas where both political influence and revenue collection are greater.

Water kiosks fill the gap

In response to the unfulfilled demand for water and sanitation services, private small scale providers have seized a business opportunity and stepped in to fill the gap. Their operations are so extensive, and alternatives so limited, that at the present time they are the primary supply for most people in Kibera. The predominant type of small scale provider in Kibera is the water kiosk. There are some 650 water kiosks in operation, of which 98 percent are run by private entrepreneurs, and a few (about 20) are run by Community Based Organizations or Non Government Organisations (NGOs)[10].

The kiosk operators lay lengths of pipe, as much as 1,500 meters, to reach the few trunk mains and gain access to the network. This informal network is connected to storage tanks, usually constructed of galvanized iron sheets, between two and six cubic meters in capacity. From these tanks, the kiosk operators sell the water to consumers, who collect it using 20-liter jerry cans.

[7] Gulyani, et al, 2005
[8] WSP, 1997
[9] WSP, 1999
[10] WSP, 1998

Kiosk operators lay pipes along existing channels including open sewers full of solid waste and contaminated water. This allows contamination of water during its transportation from the utility network to the kiosk. Many use low quality plastic pipes to reduce costs, as metal pipes are much more expensive and could be stolen. Plastic pipes have the added advantage of being flexible enough to follow the winding and irregular paths found in most of Kibera.

Contamination also occurs at the kiosk due to poorly maintained storage tanks and unhygienic handling.

A meeting of water kiosk operators in Kibera

Water kiosk users pay high prices

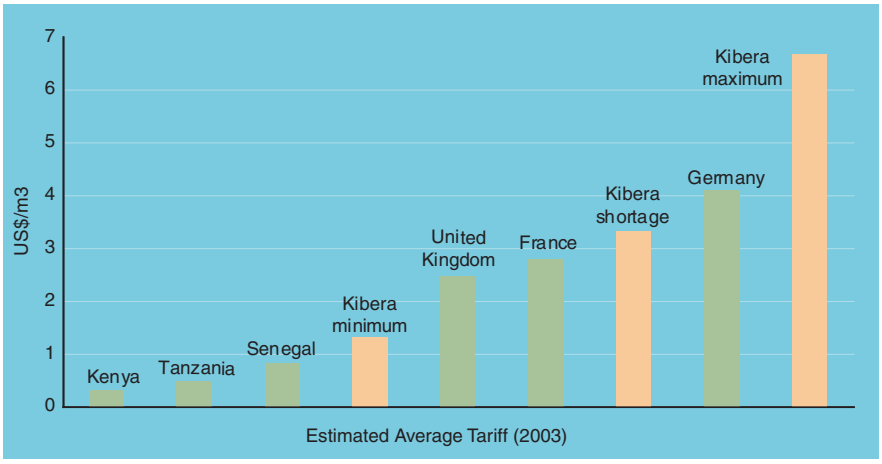
No matter what they are compared to, the prices that these kiosks charge is high. Although the utility has, in the past, made a recommendation that water be sold for Ksh1 per jerry can (about US$0.10), this is seldom observed because of the costs associated with establishing and running water kiosks. A more common price is Ksh2 (or Ksh100 (US$1.30) per m^3), which is eight times the lowest block of the tariff at domestic connections and four times the average tariff in Kenya.

During water shortages, the prices become even higher, soaring to Ksh5 or even as much as Ksh10 for a 20-liter jerry can (the equivalent of Ksh500 or US$6.60 per m^3). The unit cost of water in Kibera can thus rise above the average price of water at private connections in European countries.

There are many reasons that the water is so expensive, with most being beyond the control of the vendors operating the kiosks.

- **Capital investment:** The estimated investment by each private vendor to establish a water kiosk is about Ksh75,000 (US$1,000). The bulk of this cost comes from laying pipes to connect the kiosk to the distant utility network. A sample of 63 kiosks examined in 1998 showed that the total length of pipe

Figure 1: Comparison of Kibera water prices[11]



[11]The figures for average tariff in the countries shown are based on estimates from recent literature and accounts from utility experts.

installed was almost 20 kilometers, or an average of over 300 meters per kiosk[12]. Vendors report that pipe costs account for at least half of investment costs[13].

- **Corruption and rent-seeking:** Vendors report that at least a quarter of their initial investment is in the form of bribes to facilitate a connection (known locally as 'speed-up' fees). The utility requires a great deal of information to register a water connection, including the applicant's plot number, address details, a landlord's certification as a proof of residence, and a certificate of employment. The kiosk operators have problems fulfilling these requirements as they are often not employed in the formal sector, and many people in Kibera do not have clear land title, or have landlords who will not provide a certificate. In addition, vendors are required to make on-going unofficial payments to utility officials in order to stay in business.
- **Tariffs:** Despite the fact that a bulk rate has been incorporated into the tariff policy, this has not been effective in bringing down costs for consumers. One reason is that kiosks are usually registered as domestic connections due to the requirements of obtaining a bulk connection and additional costs (such as a deposit which is double that of a domestic connection). Kiosks are usually charged tariffs according to the increasing block tariff, and end up pay high retail rates. At the highest block of the tariff, each additional cubic meter purchased by the operator costs Ksh35, or Ksh0.7 per jerry can.

In some cases, high prices are a result of vendors taking advantage of temporary shortages to make rapid profits. These shortages are usually created by general problems at the utility, which result in service interruptions. However, there are reports that artificial shortages are sometimes created through collusion with utility officials.

Another factor making it possible for vendors to demand high prices is the apparent concentration of sales within a small number of kiosks. A survey of 55 kiosks in 1997 showed that 66 percent of the water sold over a seven-day period came from 29 percent of the kiosks[14].

Kiosk users have no option but to pay the high prices, and little recourse. Most of the residents in Kibera are tenants, and many of the water vendors are their landlords, making users reluctant to protest against unfair practices at the kiosks.

[12] WSP, 1998
[13] Consultations with kiosks operators in March 2003
[14] WSP, 1998

Most kiosk customers buy water in 20-liter jerry cans

Long history of neglect

There are several reasons that Kibera gets little attention from the utility:

- Revenue collection in the settlement is negligible, due in part to low billing rates by the utility (less than 10 percent of water delivered is billed[15]) and low payment rates by the water on-sellers. An example is that only 11 percent of kiosk operators paid their bills in 1995 and 1996[16] which, according to estimates, results in a payment rate of less than one percent
- There are many illegal connections and the utility is reluctant to provide more water in an environment where much of it will be stolen
- Despite its large population, the water delivered to Kibera is estimated to be less than 10 percent of the city's total consumption.

All these factors result in few incentives for the utility to address the needs of Kibera.

On the other hand, evidence from consultations with consumers shows that residents of Kibera are not only paying for water, but are paying very large amounts. The approximate amount paid by consumers in Kibera to meet their daily water needs can be estimated as follows:

- The amount of water supplied by the utility to Kibera settlement is about 20,000 m^3 per day
- It is estimated that 40 percent of the water supplied is lost through leakage and the remaining 60 percent is sold at kiosks
- A jerry can of water is sold for a minimum price of Ksh2
- Each jerry can holds 20 liters, so there are 50 jerry cans per m^3.

Based on these figures it can be estimated that collectively the consumers in Kibera spend about Ksh1.2 million every day on water. This is equivalent to Ksh438 million annually. By comparison, the utility bills about Ksh3 billion per year, but collects only 30 percent, or Ksh900 million. This means that the revenues collected by kiosks operators in Kibera are about half of those collected by the utility. If the water currently being consumed by kiosk users was all billed and paid for at the bulk rate, the utility would collect an extra Ksh44 million annually, increasing their revenue by five percent.

The utility has historically done little to try to address the problems in Kibera, preferring to simply use water rationing to limit its losses. Until recently, the attitude towards kiosk operators was that they were part of the problem. Driving water vendors out of business was seen as an effective measure to reduce unaccounted-for-water.

This attitude is illustrated by action taken in 2003 when the Minister of Water Resources announced that legal proceedings would be initiated against water vendors who were not properly registered. This was reported in the press under the headline "Rogue water vendors put on notice"[17]. The Minister admitted that much of the illegal water business was carried out in collaboration with corrupt ministry and utility officials, but offered no concessions or immediate improvements in the way the system was administered. With a lack of

[15]WSP, 1998
[16]WSP, 1999
[17]Daily Nation, 2003

enforcement these threats had little impact except, perhaps, to make water vendors feel even more vulnerable to corrupt officials.

Kiosk operators form an association

Despite the official attitude, most kiosk operators are keen to reduce the price of water and improve their service. For instance, many of them would like to establish pay-per-use showers and sanitation facilities. The current level of investment made at the kiosks demonstrates that capital is available. However, from the perspective of the kiosk owners, there are significant impediments to registering a kiosk, managing its operation, and getting enough water.

The Water and Sanitation Program in Africa (WSP-Africa) engaged with kiosk operators in March 2003 to learn more about their operations and constraints. This initial contact was very limited, consisting of informal meetings with about 15 kiosk operators[18]. However, about a year later, after the new Water Act was enacted, kiosk operators sought WSP-Africa support over concerns that the water sector reforms would affect their businesses. This fear arose from what they saw happening in the transport sector. Here, under much-needed reforms, new rules were enforced for privately-managed public transport and all drivers had to re-register; but before this could be achieved many of them were out of business for months.

[18] WSP, 1998

In May 2004, WSP-Africa helped organize a meeting with kiosk operators at which one of the architects of the Water Act spoke of its implications for the water on-selling business. He explained that the Act clearly defines a role for small scale water providers and encourages competition between various service providers to increase efficiency.

The implication was that Kibera water vendors need not fear the Act, as long as they could comply with the law and improve their services to remain the preferred means of water service delivery in the settlement. As a result of this meeting, the kiosk operators decided to form an association, which they called Maji Bora Kibera (MBK) - the Swahili translation of 'better water services for Kibera'.

With the help of WSP-Africa, MBK drafted a constitution, formed an executive committee and applied for official registration. An invitation was sent out to all the water businesses in Kibera, and over 200 kiosk operators met to form groups based on their geographic location in the settlement and elect representatives to the executive.

Members of MBK announce their commitment to improve water services

Kiosk operators and a Nairobi Water and Sewerage Company official meet to address issues of mutual interest

This was followed by a campaign to increase membership, which grew to more than 500 in a few weeks.

WSP-Africa then worked with MBK through a series of half-day meetings to determine both what members could do to improve their credibility, and what issues they wanted to formally engage on with the utility. WSP-Africa had meanwhile approached the newly-formed Nairobi Water and Sewerage Company about becoming involved, and arranged a meeting with the Managing Director, the person in charge of water supply for poor settlements, and the commercial and technical managers. As an outcome of this meeting, a joint task force was formed, with members from the utility, MBK and WSP-Africa.

At the suggestion of the utility, MBK wrote a letter stating clearly the problems that the water vendors in Kibera faced, and the approach they wished to take. The letter was a watershed in vendor-utility relations, and the first step towards achieving true credibility and recognition for the water kiosks. The letter stated that:

- The problems faced by the members were water shortages, lack of bulk water connections (forcing vendors to use regular domestic connections), illegal connections, corruption and lack of sewerage (even though customers were obliged to pay sewerage surcharges)
- The members of MBK offered to engage in initiatives to regularize all connections, pay their bills regularly, stop paying bribes, report leakages and expand services to unserved areas
- The utility was asked to provide a regular supply of water at the bulk price, read meters regularly and accurately, give the vendors notice of interruptions in service and follow a timetable for water rationing, allow weekly payments, visit Kibera, and provide engineering advice for network improvements.

MBK gave a concrete commitment that each member would pay a flat monthly rate of Ksh500 over a three month period while all accounts were being regularized. Regularization includes making illegal connections legal, allocating account numbers for all connections, and setting up a payment schedule for arrears. MBK and the utility agreed that members would come to the utility offices in groups of 15 or 20 to facilitate this regularization.

MBK also designed a sign to be painted on the tanks of members. This sign indicates the member's NWC account number, and states that he or she has a meter, pays bills regularly, and does not pay bribes. It also gives the phone number of MBK to which complaints or suggestions can be directed. MBK has stated its intention to expel any member that does not abide by these commitments.

MBK and the utility continue to build their relationship. Most importantly, the shift for vendors is that their businesses have been recognized as valid enterprises.

What now for water vendors?

During the meetings with MBK members, a number of options were explored for strengthening self-regulation, and working with the community and utility to further

improve conditions. Some options have already become part of the joint utility/vendor dialogue, including:

- Reducing **rent-seeking** associated with registration of a kiosk, operation and bill-paying
- Reporting **leaks** where the kiosk operators have committed to informing the utility of network faults
- Making **billing and collection** more reliable and regular.

Some issues that are yet to be addressed include:

- Reducing **barriers to market entry** for prospective kiosk operators by streamlining the registration process, and making it easier for kiosk operators to access the official bulk tariff
- Removing the **solid waste** that clogs the open drains of Kibera and contributes to contamination of water in the connections
- Developing a mechanism for **consumer feedback** regarding kiosk operation in terms of hygienic storage and handling of the water, pricing and customer service. Ideally, consumers would organize into associations which would carry out random water testing and rate the services offered by kiosks. Users could be involved in the assessment of whether licenses should be renewed. Water consumer associations could also make use of the media to communicate concerns and urge kiosk operators to improve
- **Building capacity** of kiosk operators by holding training programs on hygienic water handling and small business management. Kiosk operators could also be educated about the health and environmental implications of their business, and be trained to pass hygiene messages on to their customers.

An example of the utility's efforts to regularize water supply in informal settlements, foreseen for Kibera

As of mid-2005, the kiosk operators were working with the utility to regularize connections and clear arrears. There were also moves to increase the secondary network in Kibera to address the urgent need for more network infrastructure in the area. A combination of a new institutional framework, an enhanced capacity of the water vendors, timely external intermediation and a pragmatic attitude on the part of the new water company - driven by its mandate to make rapid improvements – has resulted in promising collaboration and concrete action.

There remains some concern that the association could potentially be an obstacle to long-term change in Kibera if the members are determined to protect their own interests at the expense of consumers. However, there is recognition that both the utility and vendors could gain from this collaboration.

Serving the Urban Poor

This series of field notes on *Serving the Urban Poor* aims to provide lessons to public sector decision-makers, managers and implementers, and their private partners, to tackle the challenges of service delivery to the urban poor. The series is concerned with the key issues and actions necessary to improve the scale and rate of progress towards the MDGs in urban areas: making utility reform work for the poor; enhancing the role of local private providers; promoting incentive driven, predictable enabling environments; and strengthening consumer voice and mechanisms to improve the accountability of service providers.

References

Collingnon, Bernard and M. Vezina. 2002. Independent Water and Sanitation Providers in African Cities: Full Report of a Ten Country Study. Water and Sanitation Program, Washington D.C.

Conan, H, and M. Paniagua. 2003. The Role of Small Scale Private Water Providers in Serving the Poor, Asian Development Bank.

Gulyani, Sumila, Debrabrata Talukdar and R. Mukami Kariuki. 2005. Water for the Urban Poor: Water Markets, Household Demand and Service Preferences in Kenya. Water Supply and Sanitation Sector Board Paper Series Paper No. 5.

Hicks, J. F. 1998. Enhancing the Productivity of Urban Africa, Infrastructure, Africa Region, World Bank.

Mehrotra, S., and A. Morel. 2003. Regulating Small-Scale Providers for Water Supply: A Case Study in Kibera, Nairobi, An Interim Report by WSP-Africa, Nairobi.

PPIAF. 2002. A Study of Options for Private Sector Participation for the Water and Sanitation Services in Nairobi, Public Private Infrastructure Advisory Facility, Nairobi.

The Nation. 2003. "Rogue Water Vendors Are Put On Notice" The Nation – Kenyan Daily Newspaper, February, 21.

Water and Sanitation Program (WSP). 1997. Kibera Rapid Needs Assessment – Urban Environmental Sanitation Issues, Report by WSP-Africa, Nairobi. .

Water and Sanitation Program (WSP). 1998. Study of the Water Kiosks of Kibera, Informal Paper, WSP-Africa, Nairobi,

Water and Sanitation Program (WSP). 1999. The Water Kiosks of Kibera. Fieldnote, UNDP-World Bank Water and Sanitation Program, Nairobi.

Water and Sanitation Program (WSP). 1999. Water and Environmental Needs of Kibera. Fieldnote, UNDP-World Bank Water and Sanitation Program, Nairobi.

Water and Sanitation Program (WSP). 2003. Sector Finance and Resource Flows for Water Supply, A Pilot Application for Kenya. WSP-Africa, Nairobi.

Water and Sanitation Program (WSP). 2003a Engaging in Self Regulation. Unpublished report.

Water Utility Partnership (WUP). 2003. Better Water and Sanitation for the Urban Poor, Good Practice From Sub-Saharan Africa, WUP, Abidjan.

World Bank. 2001. Summary of the Study Water for the Urban Poor: Insights from Household Surveys in Kenya, The World Bank, Nairobi.

World Bank. 2004. Project Appraisal Document, Nairobi Water and Sewerage Restructuring Project, Water and Urban Unit 1, Kenya Country Department, Africa Region, Report No: 28825-KE, The World Bank, Nairobi.

wsp
water and
sanitation program

Water and Sanitation Program - Africa
World Bank
Hill Park Building
Upper Hill Road
PO Box 30577
Nairobi
Kenya

Phone: +254 20 322-6306
Fax: +254 20 322-6386
E-mail: wspaf@worldbank.org
Website: www.wsp.org

June 2005

WSP MISSION:
To help the poor gain sustained access to improved water and sanitation services.

WSP FUNDING PARTNERS:
The Governments of Australia, Austria, Belgium, Canada, Denmark, Germany, Italy, Japan, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom, The United Nations Development Programme, and The World Bank.

ACKNOWLEDGEMENTS:
This paper has been prepared from an original fieldwork report by Shagun Mehrotra, with final text by Clarissa Brocklehurst, under the team leadership of Alain Morel. Detailed feedback and technical support was provided by Wendy Ayres, Sabine Bongi, Piers Cross, Wambui Gichuri, Mukami Kariuki, Andreas Knapp, Japheth Mbuvi, Cyrus Njiru, Eustache Ouayoro, Janelle Plummer, Nathalie Semoroz and Shao Wen. The paper was edited by Melanie Low and produced by Toni Sittoni and Sarah de Villiers Leach, with the assistance of Jane Wachuga and Peter Ng'ang'a.

Cover photo: Shagun Mehrotra
Photo credits: Shagun Mehrotra and Alain Morel