

Small Service Providers make a Big Difference

Studies conducted in four East African cities reveal disparities in the operating environments of small scale independent providers (SSiPs) of urban environmental sanitation services. These studies outline roles played by SSiPs and recommend how best they can meet needs of the urban poor.

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Introduction

This *field note* synthesizes the findings of four case studies of SSiPs in environmental sanitation and the provision of water to the poor people of the East African cities of Dar es Salaam (Tanzania), Kampala (Uganda), Nairobi and Mombasa (Kenya).

The studies were conducted by the East and Southern Africa Regional Office of the Water and Sanitation Program (WSP-ESA) in December 1998 and January 1999. The main purpose of the studies was to investigate the potential of SSiPs to improve, expand and sustain urban environmental sanitation (UES) services at affordable costs. The studies were part of a wider regional project being piloted in seven African cities that included Bamako, Mali; Conakry, Guinea; Dakar, Senegal; and Cotonou, Benin. The case studies of the three East African capital cities were funded by the International Research Centre, the Netherlands while the study of Mombasa, Kenya's second largest

city, was commissioned by the WSP-ESA.

The specific outputs were:

- a greater understanding of the types of service providers and the scale of their operations.
- an assessment of the comparative advantage of SSiPs and why the poor turn to them.
- an understanding of the institutional and legal context in which SSiPs operate.
- the identification of strengths and weaknesses of SSiPs in order to evaluate the potential for further developing their activities.
- the identification of bottlenecks that hinder the development of SSiPs and recommendations on ways and means through which they can be overcome.

Study Methodology

The studies were carried out through review of relevant documents from public institutions (both governmental and non governmental) and donor organizations. This was followed by questionnaire interviews with key informants, household users, providers and operators, using the transect walk method. Focus group discussions were then held with operators. Finally, follow-up workshops helped to synthesize the findings and recommendations, and chart out the way forward.



Handcart operators ling up for water in Dar es Salaam

Background to the Studies

Kenya, Tanzania and Uganda gained independence from British colonial rule in the early 60s, and have had similar histories of state owned utility institutions dominating the provision of urban water and sanitation services. Lack of investment in the institutions and infrastructure (built in the late 50s and early 60s), poor management, and weak enforcement of urban planning regulations have led to low performance by public utilities, especially in delivering UES services to the urban poor.

In the last ten years, SSiPs have played an increasingly vital role in UES, thus filling the gaps left by the public sector. SSiPs are typically informal entrepreneurs, community based organizations and NGOs.

The water and sanitation sector has yet to be fully reformed and liberalized in East Africa. SSiPs largely operate outside the law and where they are legalized, their operations and profitability are still subject to the old policies, regulations, tariffs and other conditions imposed by the public utilities. Legislation is scattered in various Acts, Decrees, By-laws and Statutes.

Only about 30 percent of all four cities' population have direct access to piped water. The rest depend on point water sources such as shallow wells, protected and unprotected springs and on SSiPs services. The types of SSiPs servicing the urban poor are the secondary operators who obtain water from secondary distribution networks.

Between 75 and 90 percent of the inhabitants rely on on-site sanitation facilities. Others are septic tanks and cesspit systems. Emptying and cleaning of pits, septic tanks and cesspit systems are done by truck cesspit emptiers, manual emptiers and latrine diggers. Problems experienced in low-income neighbourhoods include poor pit emptying services and hazardous practices for pit emptying. Others are poor accessibility due to poor infrastructure and pollution of ground water, leading to chronic water-borne diseases. Kampala and Nairobi have a few public flush

toilets managed by a private entrepreneur and the community respectively.

Main Findings

The main findings from the study are presented in the following sections, tables and boxes.

Institutional, Legal and Regulatory Framework:

In Dar es Salaam, Kampala and Mombasa, the provision of water and sewerage services are monopolized by a state corporation and the respective city municipal authorities. In Nairobi, the provision of services is under a department of the City Council.

In Uganda, Tanzania and Mombasa, new policies that encourage private sector participation in service delivery have been formulated. However, the legal provisions in the various Acts, Statutes and By-laws mandate the respective municipalities to provide services and do not accommodate SSiPs operations. In Mombasa and Nairobi, there is unclear land tenure policy, as informal settlements are considered illegal. Investors are therefore unwilling to support the provision and improvement of basic social services and infrastructure in the low income areas.

Characteristics of SSiPs: Water Supply sub-Sector

Secondary operators: water kiosks and standpipes, water tankers, handcart operators.



A tanker filling up in Nairobi

- Are mostly dependent on municipal or utility primary services.
- Are mostly subsistence, self employed and family-based operations.

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Comparison of Sanitation SSiPs in the Four Cities

Estimated Population	Mombasa	Nairobi	Kampala	Dar es Salaam
	700,000	2,500,000	1,000,000	3,000,000
Septic tanks, Pit latrines and Cesspools				
Coverage city wide (%)	90	60	90	90
Market share in urban poor areas (%)	5 - 10	10	not reported	80
Cost of service per trip (US\$)	150 - 200	40 - 80	15 - 60	27 - 33
Number of trips per day	1 - 2	1 - 2	1 - 2	3 - 4
No. of registered operators (SSiPs)	5	10	5	4
Investment cost (US\$)	20 ⁱ - 50,000 ⁱ	500 ^k - 20,000 ⁱ	32,000 ⁱ	20,000 ⁱ

Key: *i* - accessories for manual operators
k - cost of hand cart operators

j - cost standard exhauster tanker
l - exhauster tankers (lorries, etc).



Manual exhauster

Success Factors

The most important success factors of SSiPs in water supply and sanitation are that they:

- thrive due to the inability of the monopolistic public enterprises to respond to the dynamics of market demand.
- have the ability to access (physically) peri-urban areas not covered by the public sector enterprises.
- are commercially oriented operations based on private enterprise and designed to make money. (The profit motive compels innovative approaches to resolution of difficulties, which in turn ensures sustainability of service.)
- respond to the needs of the market by accessing high population density communities through provision of stand-pipes and water kiosks.
- operate other businesses in addition to provision of urban environmental services. (This permits re-allocation of resources whenever necessary to keep the entire group of enterprises operational.)

Constraints

The main constraints to the expansion of small scale providers of urban environmen-

tal sanitation services were identified as:

External

- Poor infrastructure in informal, low income settlements limits accessibility to SSiPs customers.
- Poverty limits the viability of investments in most of the needy areas.
- Poor construction standards applied in some of the public facilities have caused problems in both development and maintenance needed to handle a growing population.
- Poor law enforcement in the UES sector, coupled with inadequate legal framework (for Dar es Salaam, Kampala and Mombasa) frustrates the good job done by the SSiPs. In Nairobi, slow implementation of the reform and liberalization process makes SSiPs operate against the policy.
- Low literacy levels among the urban poor makes them slow to adjust to new ideas from SSiPs.
- The taxation system favors the public utilities, creating negative feelings in the private sector. This results in poor book keeping, no auditing and evasion of taxes by SSiPs.
- Poor access to credit due to lack of information on the existence of appropriate private sector development programs.

Internal

- Failure by SSiPs to form associations, thus precluding a forum for the exchange of views on generic difficulties.

Case Example 1: Independent Primary Operator in Kampala (a private water company)

- This SSiP is independent of municipal or utility infrastructure.
- One entrepreneur manages five private water systems, two of which are in Kampala.
- In Kampala, they serve 600 people.
- It has a system of coin-operated water kiosks, normal water kiosks and in-house connection service.
- Entrepreneur realized a pre-tax profit of US\$ 1,200,000 in 1998.

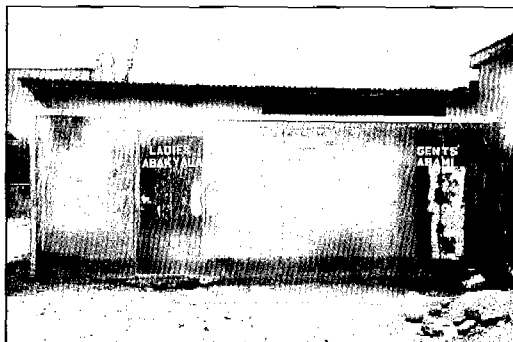
Sanitation sub-Sector

Types of SSiPs: pit emptiers and diggers, cesspool and septic tank cleaners and emptiers, handcart operators, community based operators, managers of public toilets.

Case Example 2: Community-based Sanitation Service, Nairobi (pour-flush toilet at Mukuru-Kaiyaba)

This enterprise is community managed with initial donor funding through a local NGO.

- It is dependent on municipal sewerage services.
- Total initial investment cost was US\$ 5,000 for an estimated 100 users per day.
- A family pays US\$ 0.5 per month for use of toilet as well as for bathing. Cost per visit is US\$ 0.03.



Public toilet operated privately

Case Example 3: Manager of Public Toilets, Kampala

The entrepreneur was contracted to operate public flush toilet facilities in Kampala city center which were previously operated by the Kampala City Council.

- This SSiP is partially dependent on municipal infrastructure.
- Entrepreneur rehabilitated the facilities (as per condition of the contract) at a cost of US\$ 38,000 for an estimated number of 2,550 users per day.
- Entrepreneur uses own water pumped from a well and supplements with water from a water tanker.
- Charges are US\$ 0.08 per toilet use. Daily expenses are US\$ 92 (including cost of toilet paper, fuel, labour and detergents). Pays a monthly rent of US\$ 1,000 to the Kampala City Council.
- The profit per day is US\$ 50.

Case Example 4: Latrine Diggers and Emptiers (operating mainly in Mombasa and Dar es Salaam)

- Diggers have no formal training, acquiring their skill 'on-the-job'.
- Diggers double up as emptiers of full pit latrines, using shovels, buckets and handcarts.
- The service charge varies between US\$ 10-20 (Dar es Salaam) and US\$ 60-120 (Mombasa) to dig or empty a full pit latrine.
- Emptiers operate mostly at night (stigma attached to the job) and bury the emptied sludge in nearby grounds (Mombasa).

- Have moderate to low level of investment.
- Serve medium to low income areas.
- Handcart operators also collect and sell water from private wells/boreholes.

Independent primary operators: boreholes, wells, small water companies.

- Are independent of municipal or utility primary services.
- Are individually operated or small scale companies.

- Have moderate to high level of investment.
- Serve high to medium income and urban poor communities.



An exhauster truck emptying sludge

Comparison of Water SSiPs in the Four Cities

Estimated Population	Mombasa 700,000	Nairobi 2,500,000	Kampala 1,000,000	Dares Salaam 3,000,000
Water Kiosks/Standpipes				
Volume handled ('000 litres / day)	82	24,000	1,010	Not reported
No. of water points	>300	>3,000	7,500	
Market share in urban poor areas (%)	30	100	5	
Cost of water per 1,000 litres (US\$)	1 - 5	1 - 2.5	3.6	
Utility tariff charge (US\$)	0.2	0.15	0.36	
Ratio of cost charged/utility purchase price	5 - 25	6.7 - 16.7	10	
Investment cost (US\$)	100 - 300	150 - 400	290	
Total sales per day (US\$)	1.7 - 15	3 - 10	7.5	
Handcart Operators				
Volume handled ('000 litres / day)	500	Not reported	Not reported	4,800
Water points (No. of operators)	>200			>800
Market share in urban poor areas (%)	20			80
Cost of water per 1,000 litres (US\$)	5 - 25			3.5 - 30
Purchase price per 1,000 litres (US\$)	0.8 - 1.5			1.5
Ratio of cost charged/utility purchase price	6.3 - 31			2.3 - 20
Investment cost (US\$)	0.8 ^a - 100 ^b			35.6 ^c - 120 ^d
Total sales per day (US\$)	3			5.8
Water Tankers				
Volume handled ('000 litres/ day)	Not reported	400	160	200
Number of operators		10	8	10
Market share in urban poor areas (%)		-0	-0	-0
Cost of water per 1,000 litres (US \$)		2	4.34	5.74
Utility purchase price, per 1,000 litres (US\$)		1.4	1.08	0.034 ^e - 0.74 ^f
Ratio of cost charged/utility purchase price		1.4	4.0	169 - 7.7
Investment cost (US\$)		13,000	7,250	15,000
Total sales per day (US\$)		120	87	114
Borehole/well Operators				
Volume handled ('000 litres / day)	12,000	160	Not reported	Not reported
Number of operators	>100	>50		
Market share in urban poor areas (%)	30	-0		
Cost of water in per 1000 litres (US\$)	0.8 - 1.5	1.7 - 8.0		
Ratio of cost charged/utility purchase price	6.3 - 31			
Investment cost (US\$)	1,000 ^g - 15,000 ^h	33,400 ^h		

Key:

a - hire of handcart and jerrycan
 c - license fee (US\$ 35) and hire of handcart
 e - price for domestic use
 g - well construction cost

b - purchase of own handcart
 d - purchase of own handcart
 f - price for commercial use
 h - borehole construction cost

- The SSiPs do not market aggressively enough nor widely advertise their businesses. Service charges are high, which discourages customers. A bigger market share would result in lower charges and wider coverage.
- The SSiPs have had no formal training in their operations, specifically on book keeping, accounts and business management. They lack information on training needs and opportunities. They also lack a sound financial base required to finance their business operations.
- Accountability and transparency by the local authorities in the registration and licensing of SSiPs.
- Provision of supporting infrastructure by the Municipal Council, for example dumping sites and construction of wastewater treatment plants.

The Way Forward

The main strategic issues for scaling-up and sustaining water supply and sanitation services offered by small scale providers are:

Areas of Intervention

- Implementation of policies conducive to competitive SSiPs development by removing barriers that hinder their growth and reduce profitability.
- Repeal of the existing by-laws to accommodate the entry of SSiPs into the service delivery market, which hitherto was dominated by the public bodies financed through subsidies from local and central government.
- Repeal of the Water Act for Mombasa and Nairobi to accommodate the entry of the private sector in exploration and development of water sources, as has happened in Kampala and Dar es Salaam.
- Encourage repeal of the Public Health Act, the Municipal By-laws and the Local Government Act to require that where SSiPs services are available, the communities enter into contractual arrangement with the SSiPs for the delivery of services, for which they pay directly.
- Building a regulatory capacity of the Municipal Council to control and regulate SSiPs operations by ensuring that the services provided conform to minimum standards and are not exploitative.

Issues for Scaling-up of SSiPs

- Funding of SSiPs - there is need to explore possible financial support for the SSiPs.
- Encouragement of SSiPs to form an association or lobby group. Such a body could be an ideal forum to address some of the issues hindering SSiPs operations.
- Marketing and outreach programs, including hygiene awareness for the urban poor communities and other areas, to increase marketing and coverage of SSiPs services.
- Introduction of the SSiPs to the community by the Municipal Council, through the elected representatives of the community.



Customers fill their jerrycans at a water kiosk

Recommendations

- To disseminate the findings of the studies to the SSiPs, the local authorities, the donor community and other stakeholders. This could be done through workshops.
- To strengthen the management skills and capacity building of the SSiPs and to inform them of available training facilities.
- The best practices could be duplicated in other cities. For example, the Kampala private water supply and the management of public toilets in Kampala city center are best practices.

This field note was prepared and edited by Elizabeth Obel-Lawson and Bernard K. Njoroge, and reviewed by Tore Lium.

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