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PEOPLE AND SYSTEMS FOR WATER, SANITATION AND HEALTH

Sustainable service provision for the urban poor

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THE REGULAR APPEARANCE of epidemics in African cities like cholera reminds us that despite efforts and important changes put into the sector during the last 20 years, huge problems still persist. The rate of water related illnesses has not significantly declined. The reason is without doubt the continuing low attention given to problems of the poor and low-income groups during restructuring processes. Unfortunately, when the focus shifts to commercial viability, the widely proclaimed commitment to water and adequate sanitation for everyone, as a basic human right, seems to be ignored.

Low-income groups generally constitute more than 50% of the population in African towns. Therefore, any approach which does not sufficiently take care of this majority, will fail. Separated strategies for different areas within a town fall short, as experienced with small-scale water supply schemes in most of the cases. The disadvantages are multiple, like higher production costs, less professional experience available and more complex management.

Low-income groups pay more for water than connected households

Lome	10 times more
Abidjan	5 times more
Kampala	4-9 times more
Nairobi	11 times more

(J.H.Doyen, L.Salifu World Bank, ESAR/WA 3th Conference, 10/2000.)

But not in Burkina Faso: Same social tariffs at Kiosks than for life-line consumption at household connections.

Strategies for high/medium and low-income areas must be coordinated in order to achieve total cost recovery in the entire service area and allow for social tariffs for all low-income groups.

There is no apparent reason why low-income groups should not benefit from new and more efficient providers, who are able to produce at lower costs due to better management, have higher professional experience, and economy of scale of system. If these advantages are not partly passed on to the poor by means of affordable technology and not reflected in social tariffs, the new system must be regarded as a failure.

Generally, insufficient representation of interest is observed regarding the needs of the poor and low-income groups during restructuring of the water and sanitation sector!

Very few examples exist where a city with all its adjacent and generally very densely populated agglomerations is entirely covered by good services for water and sanitation.

Burkina Faso is one of them and can be regarded as highly advanced in serving all population groups regardless of their income and living area.

Performance indicators for ONEA Serving 36 towns with 2 million inhabitants

UFW	18%
Collection	>95% incl. Gov't consumption
Metering	100%
Cost recovery	96% of all costs
Coverage	80-85%
Public Kiosk	998

ONEA – Office National de l'Eau et l'Assainissment, Burkina Faso, 1999.

Ouagadougou the capital with over one million inhabitants serves as an example.

Experience in Burkina Faso

The re-engineering process carried out from 1990 to 1998 was aimed at **2 main goals**:

- Transforming the provider with an administrative culture into a **commercially viable enterprise** which implies reaching total cost recovery, producing efficiently and offering adequate services to the consumers; and
- **Expanding services** of water and sanitation **to the poor and low-income areas.**

The achievements demonstrate that these generally regarded as contradictory goals, could be reached at the same time if the right approach is adopted and certain principles are maintained throughout a reform process.

Principles

- **Access to W+S services for ALL** within a town and its highly populated adjacent areas;
- **Low-income groups shall not pay more for services than connected households. Benefits of economy of scale for ALL within a service area, which means: affordable, different technology for different consumer groups according to the ability to pay;**
- **Sustainability of service provision**. Total cost-recovery within the system, allowing at the same time, for social tariffs for lifeline consumption. This implies sufficient cross subsidising from large consumers to the poor and low-income areas. Equally, no service should be free of charge; and
- **Minimum service levels for ALL.** Regardless of income area or technology used, the providers shall grantee a minimum service to all consumers, particularly on water quality, supply hours at connections and Kiosks, standards for sanitation installations etc.

Basics for successful provision of clean water to the urban poor at affordable tariffs

- Hold provider responsible for the provision of the entire population in the towns;
- If contracted out, providers remain responsible for basic service level and tariffs;
- Connect small-scale systems to main network – economy of scale also for the poor;
- Serve low-income areas and informal settlements with Kiosks or equivalent technology;
- Commercialize public distribution systems (Kiosks), aim to serve 700 to 2000 inhabitants/Kiosk for sustainability;
- Design Kiosks for protection against vandalism;
- Place Kiosks in public areas and select vendors in collaboration with community;
- Allow for mobile vendors ensuring that consumers remain with direct and priority access to the Kiosk;
- Provider shall invoice vendors every 2 weeks, replace vendor rapidly if non-payment arises; and
- Introduce a tariff system with social tariffs for life line consumption at connections and ensure sufficient cross subsidising.

Lessons learned

Successful commercialization of water supply and sanitation, as well as substantial improvements of services for the poor and low-income groups can be reached simultaneously!

The health situation of the population in low-income areas does not only depend on supply of clean water at acceptable prices but equally on the evacuation/disposal of used water and excreta, as well as, hygiene practices.

Often enough, the provider of water and sanitation services is reluctant to supply water to low-income areas. He and many other decision makers usually reject his involvement in sanitation services for the poor outright.

Sewerage systems in the developing world where these exist, can hardly be maintained and cover only a small portion of the urban population. A number of constraints linked to climatic conditions, consumption level of water, financial resources, costs of investment for sewerage systems etc. lead to the fact that a high percentage of coverage with a network will not be achievable in the next decades.

Therefore, on-site sanitation installations with ecological sound technologies are the only feasible solution.

Most of the attempts to durably improve the sanitation situation in low-income areas fail because the complexity of the system has not been taken into account. Unsatisfying results indicate often: missing ownership of users, unacceptable high prices and unsatisfying design of installations, missing sensitisation and marketing, limited period of funding/subsidization, weak institutions, etc.

It has been proven in Burkina Faso that failure can be avoided by convincing the water and sewerage companies to get involved and raise all necessary funds from consumers in order to finance substantial extensions of sanitation services/on-site installations into low-income areas.

WERCHOTA, GTZ (German Technical Co-operation)

Photo 1: **Kiosk in Livingstone**

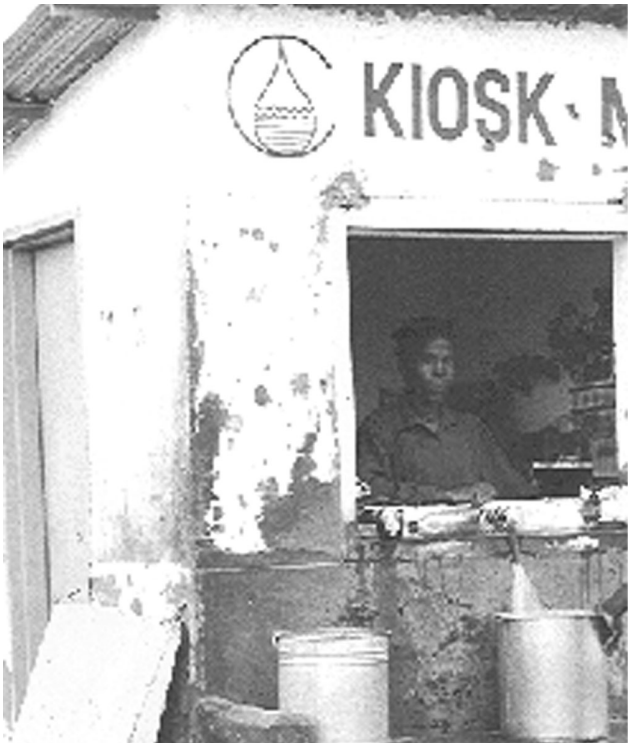

Photo 2: Kiosk in Chipata

FOR LOW-INCOME AREAS IN BURKINA FASO
Rapport de l'enquête sur le système BF de Ouagadougou Burkina Faso, April 1999

Provider:
Covers 85% of the population in the town and adjacent areas by connecting existing small-scale systems to the main network and placing of small diameter pipes for Kiosks on the edges of informal settlements.
Recovers operational and capital costs of entire system. Offers at the same time a social price at Kiosks. This is feasible, because the advantage of economy of scale is also passed on to consumers in the low-income areas. Reaches 99,5% of collection at Kiosks and over 95% for entire system. Assures minimum standards, public health, for ALL within the service areas by supervising closely the vendors at the Kiosks. Curbs wastage, protects water resources, with rising block tariffs for larger consumers.

Kiosks (commercially operated public stand-posts):
450 Kiosks cover 52% of the population (530.000), on average 12 hours open – during hot season up to 22 hours, Average waiting time 5-10 min. Average sale 30m3/day, monthly income 100$, 50% water sold to mobile vendors, 50% to consumers directly.

Consumers at Kiosk:
7 people per family and 10 per plot. 71% of low income clients buy at Kiosk directly, 29% call mobile vendor. Average consumption is 23lt. Clients fetching water are 54% women, 44% children and 2% men. Time spent to provide water for family is 81 minutes. Consumers going directly to Kiosk spend 3% of income for water, clients calling mobile vendor spend 3-6%. 42% of clients also use alternative water resources.

Consumer at house-hold connections:
Serving 320,000 people with an average consumption of 100lt/c/day. Social tariff for first 10m3 = 0.4$/m3; than for 25m3 = 0.65$/m3 and large consumers 1.7$/m3. Large consumers subsidise only social tariffs - at Kiosks and household connections for lifeline consumption.

Mobile vendors:
4,700 vendors (all men around 22 years of age) serve 154,000 people = 22,000 households, ¾ on their own and ¼ as employee, earning 1-2$/day. Average delivery distance is 500m. Sell water for 2$/m3.

Figure 1. Experience in Zambia

Table 1.

Kiosk in Livingstone		**Kiosk in Chipata**
12	No. of Kiosks in operation	22
5.000	No. of population served	25.000
4-6m3	Average m3 sold/day/Kiosk	7m3/d
0,22 USD	Tariff per m3	0,25 USD
6.00-18.00	Opening hours	6.30-17.30
10 minutes	Average waiting time for client	3 minutes
100m	Average distance to household	100m
Private	Vendor	Employee/lump sum
PROSPECT-CARE	Financed by	KfW

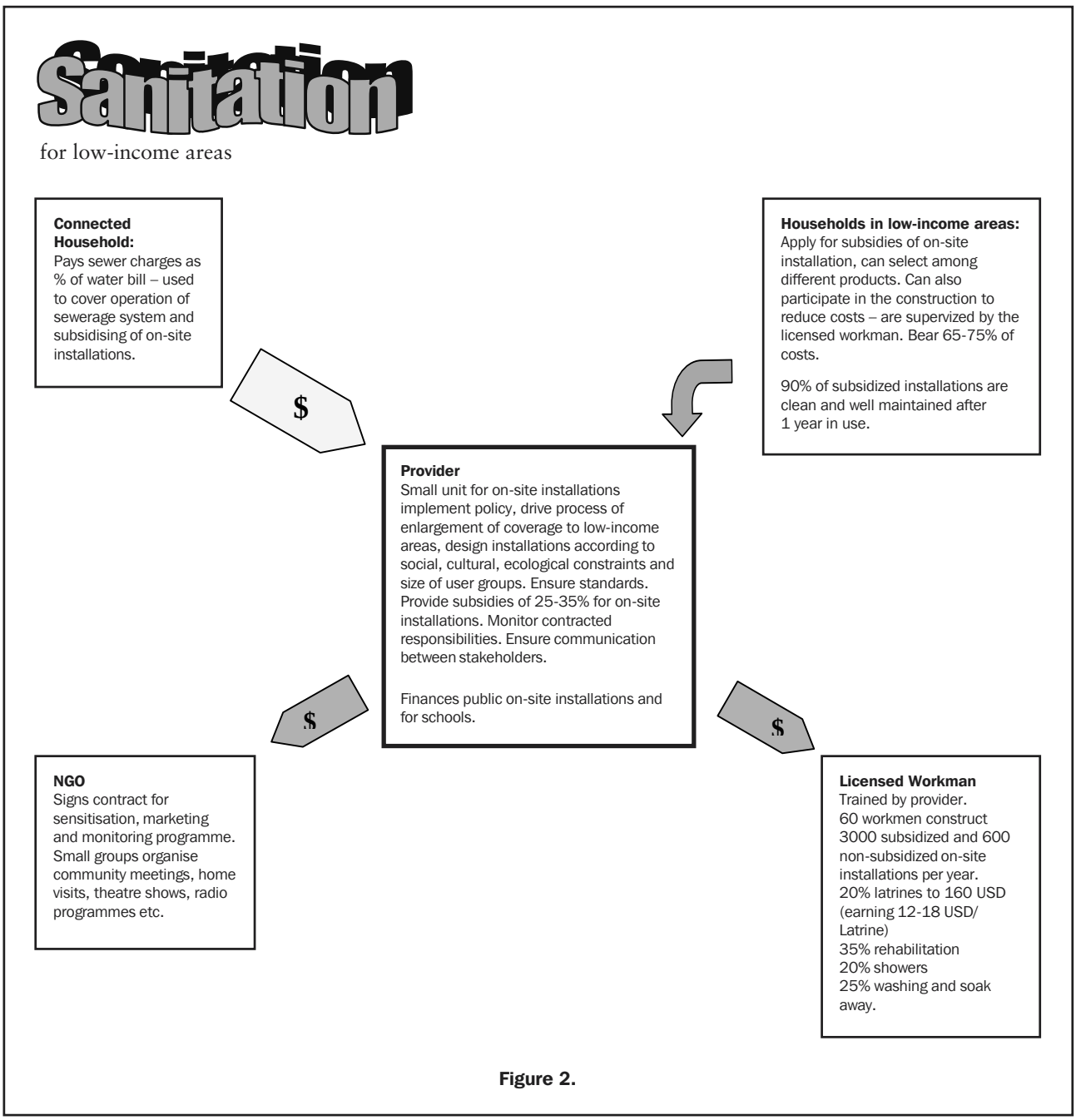
Sanitation
for low-income areas
Connected Household:
Pays sewer charges as % of water bill – used to cover operation of sewerage system and subsidising of on-site installations.
$
Households in low-income areas:
Apply for subsidies of on-site installation, can select among different products. Can also participate in the construction to reduce costs – are supervized by the licensed workman. Bear 65-75% of costs.
90% of subsidized installations are clean and well maintained after 1 year in use.
Provider
Small unit for on-site installations implement policy, drive process of enlargement of coverage to low-income areas, design installations according to social, cultural, ecological constraints and size of user groups. Ensure standards. Provide subsidies of 25-35% for on-site installations. Monitor contracted responsibilities. Ensure communication between stakeholders.
Finances public on-site installations and for schools.
$
$
NGO
Signs contract for sensitisation, marketing and monitoring programme. Small groups organise community meetings, home visits, theatre shows, radio programmes etc.
Licensed Workman
Trained by provider.
60 workmen construct 3000 subsidized and 600 non-subsidized on-site installations per year.
20% latrines to 160 USD (earning 12-18 USD/ Latrine)
35% rehabilitation
20% showers
25% washing and soak away.

Figure 2.