

## Water and Sanitation Program

An international partnership to help the poor gain sustained access to improved water supply and sanitation services

# Independent Water and Sanitation Providers in Africa

## West and Central Africa Region

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Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH on behalf of the Federal German Ministry for Economic Cooperation and Development



# The importance of small private operators in the potable water system

# Still weak in water production...

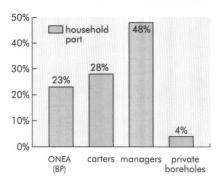
In Ouagadougou the National Office of Water and Sanitation (ONEA) mainly supplies potable water from surface water.

Sub-surface water (boreholes and wells) accounts for 18% of total water production.

Some public boreholes equipped with manual pumps, but operated privately, private boreholes, Independent Water Stations (PEA) and Water Injection Stations (PIE), using standpipes installed from boreholes, exist. Three to 4,000 wells are situated on the outskirts.

In the dry season, water is mainly supplied by ONEA (standpipes, PIE, PEA) due to wells drying up and boreholes breaking down.

# Population serviced by type of operator



# ...but important in water distribution to the underprivileged

ONEA provides direct water distribution by 35,689 private connections, particularly to central districts. It supplies 477 standpipes mainly in the outskirts and close to informal settlements.

Thus, standpipe operators distribute 35% of the total volume of water supplied by ONEA. Handcarts carrying 200 l. cans deliver 76% of the water sold by standpipe operators to homes.

In 1998, 68.5% of poor households were supplied by standpipe operators, and 4.2% did not have access to potable water.

# Variable turnover, but job-generating activities

The global turnover in the potable water system is 12,411,746,400 FcFA. ONEA is responsible for more than half, even though it only supplies 85% of families directly. On the other hand, private operators, providing one-third of the turnover, supply 92% of the families.

In spite of ONEA's important share in turnover, private operators generate more jobs.

Almost 7,000 people, of rural origin, are handcarters, and many of whom are women. Some 480 people receive substantial income from standpipe management within ONEA's system or from private PEA boreholes.

# Potable water 100% 80% 60% 60% 61% 40% 29% ONEA carters standpipe private managers- boreholes pEA and others paid jobs turnover



# The considerable importance of small private operators in the sanitation system

# In the construction of sanitary facilities...

system is still in the embryonic stage (6 km).

The Government has adopted the Strategic Plan for Sanitation (PSAO) that focuses mainly on developing construction and rehabilitation of independent facilities by trained artisans.

Ouagadougou's sewer

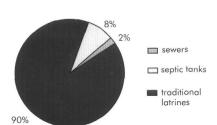
Some treatment plants exist, private (hotels, banks) and public (central market, school), but are generally not operational.

#### ...and their maintenance

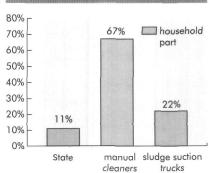
Manual cleaners take care of traditional latrines for the underprivileged population.

Twelve companies each with 1 or 2 (sometimes 3) trucks constituting a pool

# Population serviced by type of equipment



# Population serviced by type of operator



of 17 trucks handle the middle- and higher-income population's needs and those of the Government in areas with paved roads.

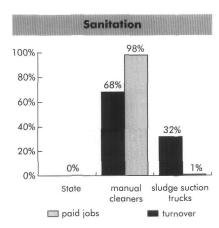
The poorest population in non-builtup areas in the outskirts does not have access to sanitation.

# High turnover and employment figures

The state plays no role whatsoever in the sanitation sector, mainly occupied by manual cleaners whose activities create many paying jobs. There are more than 6,000 manual cleaners who work mainly in the poor areas where they live.

Mechanical cleaning activities concern a dozen companies employing almost 80 people (managers, drivers, intermediaries, cleaners) using approximately 17 sludge suction trucks.

Unemployed women and young people have gone into latrine and public shower management.





# Offer of services from private operators adapted to the specific demand of populations in peri-urban areas

Potable water operators	Types of services and areas of intervention	Sale price FCFA/m <sup>3</sup>
Standpipe, Water Injection Post (PIE) equipped with a standpipe or Independent Water Post (PEA) Manager	<ul> <li>Retail water sale from a standpipe connected to ONEA, or from a PIE or PEA installed on a borehole</li> <li>Good quality potable water supply</li> <li>In central districts and the suburbs, and near informal settlements</li> </ul>	250 to 300
Private operator of a public borehole equipped with a manual pump	<ul> <li>Retail sale of water from a public borehole equipped with a manual pump and operated by a private provider who is responsible for maintenance</li> <li>In the suburbs</li> </ul>	125
Private borehole operator	<ul> <li>Retail sale of water from a borehole equipped with a manual pump or run on a thermal or electric engine</li> </ul>	No data
Occasional operator of a modern pump	<ul> <li>Retail water sale from a modern well with funnel and siding</li> <li>Supply of well water in times of drought</li> <li>In poor areas especially for families within 300 to 500 meters, and to handcarters</li> </ul>	Well water 2,500
Handcarter	<ul> <li>Home water delivery with handcarts</li> <li>Potable water in 200 l. cisterns</li> <li>Well water supply within a 400 to 500 meter radius</li> <li>Price varies according to distance from water point and season (shortage in the dry season): monthly service possible</li> <li>In all areas not serviced by mains</li> </ul>	1,000 to 2,500 up to 5,000 when water shortage
Carrier	<ul> <li>Home delivery retail water sale (220 I. cans)</li> <li>Cash payment, priced according to distance from water point</li> <li>Supplying mainly storekeepers and sales people</li> </ul>	1,750 to 2,500

#### STANDPIPE OR INDEPENDENT STATION MANAGER: A DESIRED POSITION

Standpipes represent one of the most important sources of water supply due to the quasi-absence of alternatives. A manager's position is highly desired because of its turnover; however, managers often delegate water sales to young rural people, giving them 5-15% of the sales or a monthly salary of 6-7,000 FCFA and daily food allowance of 150 FCFA.

Souleymane Gouem has been a standpipe manager in sector 14 of the Kalgoudin district since 1992 and president of the Association of Standpipe Managers. He is afraid that ONEA will take his standpipe from him, so he employs a young person to sell the water and he retains his job of nurse's aid. The standpipe operator is paid 5% of sales and works from 6 am to 7 pm. The manager does a daily follow-up, tallies usage and collects money every night. His average monthly turnover in the dry season is 372,000 FCFA.

## OUAGADOUGOU HANDCARTERS: A DIVIDED SECTOR

Men and women perform the function of handcarters. They work mainly in the outskirts and operate in groups of 10 to 15 in order to block other carters who come from standpipes that are not working. Without being formally organized, carters have tacit agreements, such as not selling to connected customers or other carters.

Carters sometimes own their carts or rent them at 200 FCFA and one barrel of water per day from the owner.

Alizeta Kabore, 37, has lived in Ouagadougou for 6 years. She became a handcarter 4 years ago with a cart purchased by her husband with his own money. She buys water from standpipe No. 472 in sector 17 (Pissy) at 60 FcFA a barrel and sells it at between 200 and 259 FcFA either directly or to regular clients. She has to pay a monthly municipal tax of 3,000 FcFA.

# THE CONSTRUCTION OF INDEPENDENT SYSTEMS: A STILL IRREGULAR MARKET

Trained masons benefit from markets that are the result of information and communication efforts made by NGOs towards households for construction or rehabilitation, and from big markets, such as the construction of public facilities, financed by ONEA, and some NGOs put to open bid.

Sanitation facility building is still an option in house building; orders are slow (2 to 3 orders per month for 10,000 FcFA/latrine) making the activity insufficient for the number of masons trained, especially as the PSAO market is limited to built-up areas.

Of rural origin, Sore Seydou is a mason from sector 22 trained in construction in 1994. He personally purchased a shovel, trowel, wheelbarrow and leveling stick. Latrine construction takes up 60% of his time. He builds an average of 20 latrines a year with the help of 1 to 4 assistants. In 1994, he obtained an order to build school latrines (2,000,000 FCFA) awarded by ONEA in open bidding.



# Facing supply from public utilities

# An omnipresent national office

ONEA is responsible for potable water distribution and sanitation of wastewater and excrement for towns with more than 10,000 inhabitants. This public establishment came out of

a troubling financial situation after being restructured.

In the sanitation sector, its actions came under the Strategic Sanitation Plan for Ouagadougou (PSAO) that foresees building some 73,000 constructions between 1992 and 2000: VIP latrines, toilets with manual flushes, rehabilitated latrines, wastewater wells and showers. One year before the end of the program, a quarter of the objectives have been attained in independent sanitation. A sanitation tax is levied on potable water sales to help finance sanitation construction, the municipality and various NGOs also contribute.

# ...WITH IRREGULAR WATER RESOURCES

Retained water serving between 4.3 and 12 million people m<sup>3</sup> according to rainfall:

- Loumbila dam (15 km from Ouagadougou).
- Three dams in Ouagadougou. Resources in subsurface water make a small contribution to well and borehole supply.

Sanitation operators	Types of services and areas of intervention	Sale price FCFA
Manufacturers of prefabricated slabs and ventilation pipes		
Latrine masons	<ul> <li>VIP latrine construction, septic tanks and lavatories with hand chains and rehabilitation of traditional latrines</li> <li>Priced according to latrine rehabilitation</li> <li>In built-up districts</li> </ul>	2,000, 4,000, 10 to 15,000
Manual cleaners	<ul> <li>Complete cleaning of traditional latrines by ambulant cleaners</li> <li>Complete cleaning of septic tanks in administrations and drain cleaning by cleaners from employment offices</li> <li>On-site burial of sludge or temporary dumping in the street awaiting evacuation by carts to fields or informal dumps</li> <li>Cleaning of watertight or septic tanks by spiro trucks</li> <li>Price varies according to client, condition and size of latrine or pit</li> </ul>	6,500 to 12,500 for latrine cleaning 20, 000 to 100, 000 for septic tank cleaning
Sludge suction trucks	<ul> <li>Liquid cleaning by spiro truck (3.5 to 12 m³ cistern) of traditional latrines and pits or septic tanks</li> <li>Sludge removal far from concessions (spread out in fields during dry season or unauthorized deposit)</li> <li>Cash payment</li> <li>In areas with paved roads</li> </ul>	8,000/trip of 5 to 8 m <sup>3</sup>
Public toilet/shower managers	<ul> <li>Provision of public sanitary facilities</li> <li>Along wide avenues and near assembly points (markets, cinemas, public gardens)</li> </ul>	Shower 100 Toilet 25

# For service supply still focused in built-up areas

A security deposit of 30,000 FCFA has to be paid and a contract signed with ONEA in order to become a standpipe manager. NGOs finance the high cost of standpipe connections (approximately 140,000 FCFA/connection).

ONEA tries to maintain low water sales prices to standpipe operators (the cheapest of the sub-region). Bi-monthly pricing enables ONEA to exercise control and follow-up on quality and service regularly. Any irregularity or late payment of invoices can result in the standpipe being reassigned.

In its water and sanitation programs, ONEA does not take into account the poor inhabitants of informal settlements due to their precarious housing. Public standpipes are situated on the limits of built-up areas, resulting in the majority of the population being supplied with water by handcarters. In the area of sanitation, PSAO only intervenes in built-up areas.

# Perspectives of development in private operators' activities

# Ouagadougou, a spreading city

With approximately 1 million inhabitants in 1999 and a growth rate of 5% between 1995 and 2010, Ouagadougou is developing by extension.

In 1993, 60% of the population lived in non-built-up zones or informal



settlements (71% occupied land). A huge rehabilitation operation and massive building program in informal settlements was launched. But informal settlements started developing again in 1990 (500 hectares per annum). Today the city has extended to its outer suburbs. However, the population in these districts is excluded from water and sanitation programs.

25.3% of the urban population lives below the poverty threshold fixed at 106,249 FCFA in Ouagadougou. Water

and sanitation expenses represent approximately 33% of a poor person's annual budget (31% for water).

#### A necessary mobilization

In order for certain private operators' activities to develop, their professions need to be organized:

 Masons and manufacturers of authorized prefabricated slabs should be able to bid for NGO latrine construction outside of ONEA.

# Types of services from ONEA and areas of intervention

Sale of water in central districts and nearby suburbs:

- By private connection to households: bi-monthly invoicing, 3-level pricing
- By standpipe to operators: contract, bi-monthly invoicing, one price

#### Sale price in FCFA/m<sup>3</sup>

Pricing levels to private connections: 172 (<10 m³) 356 (10-15 m³) 924 (>25 m³) One price to standpipes: 187



• The Association of Standpipe Managers in Kadioko (AGBKF) was formed in 1998 to voice its preoccupations with ONEA: transparence in the way standpipes are assigned, comprehension of the water meter standardization, respect of contractual agreements between managers and ONEA.

### Some proposals

After the conference in Bamako (September 25 to 29, 2000), Burkina Faso representatives identified the following priorities:

• In the sanitation sector, finalize legislation (for example, waste

standards), inform manual cleaners about protection, nuisance factors, encourage dialogue between manual and mechanical cleaners for sludge removal.

- In the water sector, bring innovation to equipment (use of household paint for barrels) and negotiate connection price reductions with water companies.
- At a national level, form associations (manual cleaners, mechanical cleaners, handcarters) and put operators into a network; at a regional level, initiate a platform of water and sanitation professionals to make aid-consulting programs known and help operations of local and national professional associations.

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The Water and Sanitation Program is an international partnership to help the poor gain sustained access to improved water supply and sanitation services. The Program's main funding partners are the Governments of Australia, 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.

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# STANDPIPE OPERATORS

# Ouagadougou - BURKINA FASO

Ouagadougou: population 1,200,000 - 1,000 CFAF = US\$ 1.60

#### WATER SERVICE IN OUAGADOUGOU

- 23 percent of households have private water connections.
- Most families get their water from standpipe vendors (48 percent) and handcarters (28 percent).
- · 4 percent use private boreholes.

The National Water and Sanitation Office (ONEA) network provides water to 477 standpipes, many of which are located in peri-urban areas and at the entry of unplanned settlements.

They constitute an essential source of water because there are virtually no alternatives.

#### **DESIRABLE AND PROFITABLE JOB**

Those wishing to manage a standpipe must deposit CFAF 30,000 and sign a contract with ONEA.

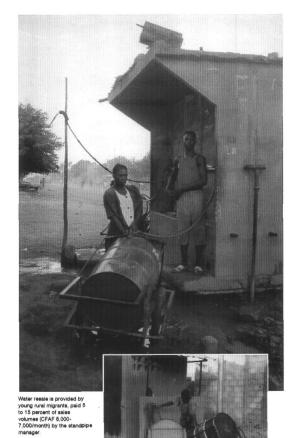
- They buy water for CFAF 187/m³ and sell it at CFAF 300/m³.
- Their average monthly sales volume is CFAF 360,000 (30-50 m³/day).

ONEA's bimonthly billing system includes monitoring and close supervision by ONEA of service quality and consistency. Any deviation from contract conditions can quickly lead to reassignment of the standpipe to another manager.

#### **ASSOCIATION OF STANDPIPE MANAGERS**

The Association of Kadioko Standpipe Managers (AGBFK) seeks to bring its concerns to the attention of ONEA:

- transparency in the selection of standpipe managers
- clearer understanding of the meter calibration system
- respect of contract provisions involving ONEA's and the managers' mutual obligations, especially in the case of late water bill payments.



# THE STANDPIPE MANAGER IN KALGOUDIN DISTRICT

The president of the standpipe managers' association has managed a standpipe in the Kalgoudin district of Ouagadougou since 1992.

Since he fears his standpipe contract could be canceled by ONEA, he continues to work full-time as a nursing aide and employs a young man to handle the standpipe. The hired vendor ensures continual service from 6 AM to 7 PM and is supposed to be paid 5 percent of water sales. The standpipe manager supervises standpipe operations on a daily basis, recording the volume of water sold and collecting the money. In April 1999, his profit amounted to CFAF 125,983.



Handcarters diustered around a standpipe









# LATRINE-BUILDING MASONS

# Ouagadougou - BURKINA FASO

Ouagadougou: population 1,200,000 - 1,000 CFAF ≈ US\$ 1.60

#### SANITATION IN OUAGADOUGOU

- In 1991, 70 percent of residences were equipped with traditional latrines 18 percent with a lined septic pit and 5 percent with a septic tank.
   Seven percent of households had no sanitation facilities.
- In response to this situation, the government adopted a Strategic Sanitation
   Plan with the goal of promoting the construction of on-site sanitation facilities

#### TRAINING OF MASONS

Within the framework of the Strategic Sanitation Plan for Ouagadougou, the National Water and Sanitation Office (ONEA) offered training courses for

- prefabricators of latrine slabs and vent pipes,
- masons who would build ventilated improved pit (VIP) latrines, septic tanks, and flush toilets.

The fees which these specialists charge amount to

- CFAF 40,000 per VIP unit for the prefabricator,
- between CFAF 2,000 and 15,000 for the mason, depending on the amount of rehabilitation required for the existing facilities.

#### MARKET DEMAND STILL SOFT

Trained masons have found work through:

- contracts resulting from household sanitation awareness campaigns run by a local NGO to promote rehabilitation or construction of sanitation facilities within the framework of the Strategic Sanitation Plan for Ouagadougou,
- arger contracts to construct public toilets under the auspices of ONEA or of NGOS, through public bidding.

The construction of sanitation facilities remains an activity only occasionally accompanying house construction work:

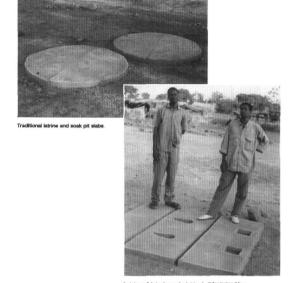
- Few orders are coming in: two or three per month, at CFAF 10,000 per latrine.
- Demand is not enough to keep the trained masons busy.
- The market is limited to planned urban areas, in the framework of the Strategic Sanitation Plan for Ouagadougou. FYI No but the subsidy is not available in the non targeted areas.

#### A LATRINE-BUILDING MASON IN DISTRICT 22

One of the masons trained in latrine construction in 1994, a rural migrant, purchased his own shovel, trawel, pick, wheelbarrow, level, and other equipment. Latrine construction accounts for 60 percent of his work program. With one to four assistants, he has:

built about 20 latrines a year on average,

 won a 1994 ONEA contract to build latrines for schools, amounting to CFAF 2 million.



A slab prefabricator and a latrine builder trained by ONEA.



VIP latrines constructed in a planned perl-urban area.







Rehabilitated traditional latrin in a planned peri-urban area.