Case Study (GUINEA)

Independent Water and Sanitation Providers in Africa

Country: GUINEA

Water and Sanitation Program

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

West and Central Africa Region

Séverine Champetier
Amadou Diallo

WORLD BANK INSTITUTE

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

The importance of private operators in the potable water system[1]

Non-existent in water production...

The SONEG, a state company, and SEEG, water distribution concessionaires, have supplied water production in Conakry, since 1987.

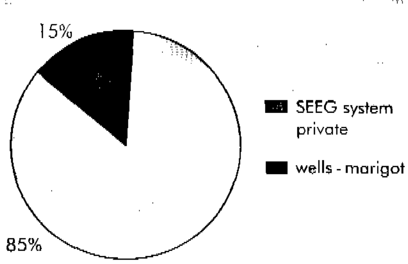
Some local associations have, however, attempted to operate their own network of standpipes connected to SEEG. SEEG remains the sole producer of water. Some private boreholes dug inside Conakry concessions are reserved for their owners' use.

Water exists in abundance (rainfall, springs, sub-surface water), thus aiding the development of non-commercial supply sources (rain-water, wells, inland rivers).

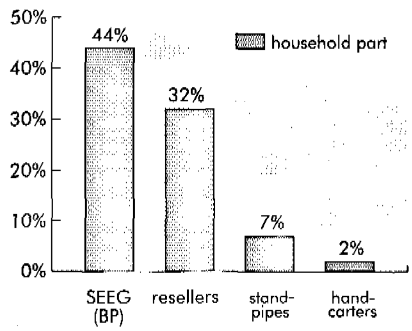
...but essential in distribution...

Almost 45% of the polled population is directly connected to SEEG mains, and the majority of the population rely on wells (in spite of pollution) and/or operators able to access the water

Population serviced by type of water source



Population serviced by type of distributor



system (resellers, standpipes, handcarters). The latter service approximately 40% of the population.

In the absence of a development policy for standpipes (only 120 standpipes in service), water resale from private connections is on the increase (it went from 18% in 1992 to 32% in 1998).

...for the poor and middle income population

SEEG services 35,000 private customers but only reaches the privileged part of the population. Many potential customers are discouraged because of administrative procedures for connection and billing sometimes thought to be abusive. The system's limited facilities also prevent it from responding to higher demand.

Private water operators mainly supply the poor sector of Conakry. However, they also service middle-income people living in new built-up areas not yet connected to SEEG.

A small part of total sector turnover, but high employment generator

SEEG represents the quasi-totality of potable water turnover, but independent operators have a stronger presence in terms of employment.

Approximately 160 standpipe operators have been identified, of which around 40 are employed by the concessionaire associations for standpipes, mainly comprising young unemployed university graduates, women and migrants.

Connected resellers are usually middle-income families trying to balance their family budget. Handcarters are often housewives, shopkeepers or Government employees, some of whom employ 20 or so people from the poorest population. These carters are often young rural people trying to establish a business.

[1] *Exchange rate advanced:*
100 Guinea Francs (FG) = 50 FCFA = 0.55 FF

The considerable importance of private operators in sanitation

In construction...

The Conakry's sanitation network, built in 1954, is not operational due to the lack of maintenance and renovation of the facilities. A minute antiquated sewer system services the city center. Independent mini-systems are also in service in some areas.

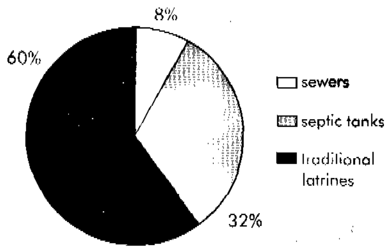
For the majority of families, wastewater goes into wastewater wells and excreta is collected in independent facilities built by specialized masons.

...and maintenance of sanitary facilities

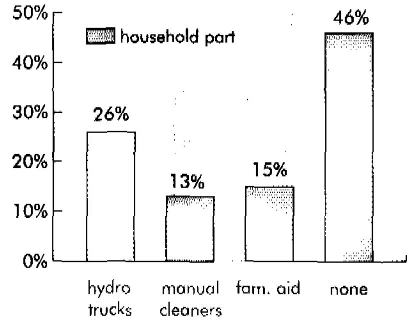
Almost half of these facilities have not yet been emptied (too recent sanitary facilities). More than 15% of the population uses their own family members (free) to empty the facilities.

More than 30% turn to independent operators (small businesses equipped with hydro-cleaning trucks or manual cleaners) against 10% turning to public utilities (SPTD, firemen).

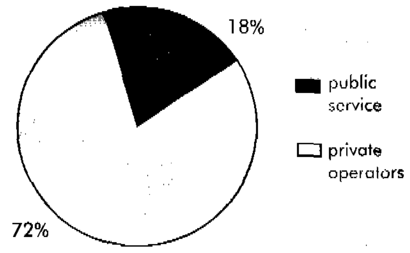
Population serviced by type of equipment



Population serviced by different operators



Part in paid jobs in the sanitation sector



In terms of turnover and employment

Given the small importance of public utilities in sanitation, independent operators' activities generate many jobs, particularly for women, the down and out and unemployed young people with diplomas.

Offer of services from private operators adapted to the specific demand of the non-connected population

Independent operators in direct relation with their clientele

Potable water operators	Types of services and areas of intervention	Price FG/m³
Connected resellers	• retail water sale from a private connection linked to the SEEG mains • good quality potable water supply • especially in areas without standpipes	2,500
Standpipe managers	• retail water sale from a standpipe connected to the SEEG mains • good quality potable water supply • in central areas and to a lesser extent in outskirts	1,250
Standpipe concessionaires	• retail water sale from standpipes of a mini-system linked to the SEEG mains • good quality potable water supply • in the outskirts	2,500
Handcart managers	• water sale from a private connection linked to mains: retail for households and in large quantities for handcarters • good quality potable water supply • rental (20,000 FG/month) and/or management of handcarts (and cans) for water transport • districts without standpipes	2,500 household 1,250 handcarts
Handcarts	• home delivery of water by handcarts • well preserved water supply (20 l. can) • in outskirts without standpipes and market places	5,000

Outside of the SEEG's network, poor families whose needs are modest (40 to 80 l. per day), and also middle-income families, turn to private operators who propose:

• quality potable water for consumption (the poor turn to non-commercial water for domestic use);

• retail sales for daily family budgeting;

• home delivery saves considerable time in water chores.

STANDPIPE NETWORK CONCESSIONS – A PROFITABLE INNOVATION

Three associations (young university students, women or nationals) with NGO status installed their own standpipe network connected to the SEEG mains. They own the facilities purchased with the help of loans from lending institutions. Just like other standpipe operators, these concessionaires have problems with the monopolistic company: absence of a development policy for standpipes, high prices, imposed resale price not taking into account amortization of equipment, difficulty in accessing maintenance facilities, late payment of commissions.

MANAGEMENT OF WATER HANDCARTERS, A JOB-GENERATING ACTIVITY

In Conakry, water resale from private connections is a growing illegal activity, tolerated, however, by SEEG who profits from the high consumption of water from these private connections. Faced with increasing demand, connected resellers have invested in the purchase of handcarts (approximately 60,000 FG per cart and 15,000 FG to equip them with 1,520 liter cans).

Such is the case of El Hadj Mamadou Condé, who progressively became the owner of 20 carts of which 16 are rented out to third persons and 4 are operated by carters working for him. After trying different jobs, he invested his own money and reinvested his profits in this particularly profitable and job-generating activity. Most of the carters are young farm-workers trying to establish capital to start a business.

Sanitation operators	Types of services and areas of intervention	Price in FG
Latrine builders	• construction of pits and latrines by specialized masons	500,000/pit 200,000/latrines
Toilet seat manufacturers	• toilet seat sales by specialized masons	7,500 to10,000/seat
Manual cleaners	• complete cleaning of traditional latrines and septic tanks, method chosen by poor and middle-income families • night cleaning of latrines used by large families to offset inconvenience of latrines not in service • on-site burial of sludge • payment according to type of pit and district • in all districts, especially in peri-urban areas	50,000/tank 30,000/latrines
Small business cleaners	• cleaning of large pits with high volume of liquid effluents, model chosen by affluent families and buildings • liquid cleaning by regular truck (8 m^3 cistern) or complete by hydro-truck (10-12 m^3 cistern) • sludge removal • cash payment • in central and built-up areas • accessible by paved road	60 to 80,000
SPTD/Firemen	• cleaning of large pits with high volume of liquid effluents, model chosen by affluent families and buildings • liquid cleaning by regular truck (8 m^3 cistern) or complete by hydro-truck (10-12 m^3 cistern) • sludge removal • cash payment • in central and built-up areas • accessible by paved road	40 to 60,000

In terms of sanitation, most families with independent facilities spend an average of 50,000 FG per annum for construction and cleaning.

Manual cleaners are sought after as they offer a complete service at an affordable rate compared to sludge suction trucks.

MANUAL CLEANERS IN SMALL SANITATION BUSINESSES — A COMPLEMENTARY SERVICE?

Many manual cleaners have entered this market. They offer, alone or in teams, affordable rates to families in peri-urban areas. Pit cleaning companies, generally efficient, have a limited presence in the market due to their high fees.

The "Conakry Garbage" company, founded in 1994 by El Hadj Lamine Traoré, is one of the most prominent. Head of the company, Traoré and Brothers, this entrepreneur represents or participates in several commercial companies (container and package transport, vehicle and spare part sales, buildings and public works). Thanks to a 40,000,000 FG loan from PNUD, he ventured into the liquid sanitation market, household garbage management and the construction and management of public latrines, drain cleaning (with 2 regular trucks and 4 hydro-cleaners). In 4 years he has employed close to 350 workers, 127 of whom are permanent employees.

WASTEWATER WELL OPERATORS, MASONS AND PLUMBERS: A TEAM SPECIALIZED IN SANITATION

Latrine and septic tank construction in this growing city is a flourishing market that employs a large variety of artisans (masons, wastewater well operators, ironworkers, plumbers, carpenters).

The mixed latrine construction and cleaning team directed by Mamady Sano comprises 6 building workers. This multidisciplinary team received training from UNICEF, allowing them to acquire necessary technical competence and basic hygiene notions, and they first worked in the construction of public latrines. Their main problem is the lack of social consideration for this activity and sanitary risks. They have to take alternate employment, given the job irregularity in this market.

Facing supply from a monopolistic service

A mutating potable water and sanitation sector...

Since 1987 the national company SONEG, that owns the equipment and is responsible for investment planning, and SEEG, the concessionaire that manages distribution, has handled water supply in Conakry. SEEG delegates standpipe management to persons recommended by town mayors and hires them with a contract signed between SEEG, the town and the standpipe operator.

No independent operator, however, has been chosen to manage Conakry's wastewater. First local utilities and now the Public Utilities for Waste Transfer (SPTD) handles, under Government control, collection and removal of all waste, helped in this by the Fire Department. Due, however, to dysfunctioning and inefficiency in public utilities sanitation services, small sanitation businesses have emerged.

...but a still insufficient and poorly adapted service

Given the anarchic development of Conakry's poor areas, SEEG is unable to respond to service demand within acceptable profitability rates. Paradoxically, pipes that supply Conakry's center run through these non-connected areas.

Types of services and areas of intervention for the SEEG	**Sale price in FG/m³**
Sale of water in central districts and some outskirts: • from private connections to household and Government: connection, bi-monthly billing, 3-level pricing, minimum 20 m³ billing • from standpipes to operators: contract, monthly billing, unique price	3-level pricing to private connections : 680 (0-10 m³/month) 850 (11-30 m³/month) 925 (>30 m³/month) Unique price to standpipes: 1,250 (830 after discount)

Low-income households are particularly penalized by SEEG's pricing policies:

• for private connections, they bill a minimum bi-monthly charge for 20 m^3 usage that is higher than the daily consumption of middle-income households;

• for standpipes, they charge the operator a higher rate than the social rate, cost handed down to the consumer. After paying a deposit and delinquent bills, the operator then turns over monthly income to SEEG and receives monthly remuneration based on a commission for every 420 FG/m^3 sold.

In terms of sanitation, the highly limited use of the sewer system is not taxed.

Perspectives of development for independent operators' activities

Conakry, a highly populated peninsula

This peninsula, 36 km long and 1 to 6 km wide (400 km^2), has undergone anarchic urbanization following rapid growth and no urban master planning.

There are 1,200,000 inhabitants today against 102,000 in 1954, a 10-fold increase in 40 years. This rapid growth has caused peri-urban areas without basic infrastructure to explode and new districts to be built-up in areas non-serviced by public water and sanitation utilities.

In 1997, 6.7% of households in Conakry were below the poverty threshold and 0.3% extremely poor. Potable water and sanitation access concerns mainly the underprivileged rural or refugee population from poor districts and peri-urban areas. People living in new districts built-up in areas non-serviced by public utilities are also concerned.

From an administrative point of view, the emergence of 5 urban communities, now handling certain functions previously under Government authority, could lead to conflict of competence, but could also incite a greater mobilization of private operators by the municipalities.

AN ABUNDANCE OF WATER, BUT...POLLUTED?

• Major precipitation (+4,000 mm/year), particularly in July-August (50% of all rainfall).
• Numerous rivers and streams.
• 2 aquafers: a shallow one (0-5 m) that feeds into polluted wells, and a deeper one that is used for drilling, and runs the risk of contamination.

This is how non-commercial supply sources (marigots, wells) develop, while the problem of liquid sanitation makes the question of pollution even more acute.

And in spite of constraints, private operators are organizing

The development of private operators' activities is hindered by *external constraints:*

• SEEG's policy for water distributors: late payment of commissions and difficult access to the SEEG operated maintenance facilities for standpipe managers; a lack of standpipe development policy and sale price of water imposed without taking expenses into consideration (equipment amortization, payroll) for mini-system concessionaires; 3-level pricing and bi-monthly billing penalize connected resellers.

• Disloyal competition from SPTD for sludge suction trucks that face high operating costs and have to compete with subsidized public utilities' services.

But also *internal constraints* linked to the activity itself:

• management problems due to clandestine connections and poor verification of cans by standpipe operators, or water loss, theft, handcarter's road accidents;

• socio-economical problems: difficult work conditions for hand-carters and manual cleaners, non-valorized professions.