



## The Wandiege Community Water Supply Project (Kisumu, Kenya): From self-help group to water company

### Kenya's water reforms of 2002

Under the Water Act of 2002, autonomous water and sanitation companies – so-called WASCOs – are given the responsibility to provide water and sanitation services within urban areas. The key word is 'commoditisation': water is considered by the Kenyan government as both a social and an economic good, to be available for all Kenyans and at a price reflecting its market value (cost recovery). According to the Act, water services have to be managed in accordance with sound business principles.

The Act also recognises that the poor cannot afford to pay such prices, a problem that has to be solved by subsidised rates. Therefore, the WASCOs are supposed to improve access to water and sanitation services for poverty reduction and sustainable development. In short, the core mandate of the WASCOs is to provide effective, efficient, adequate and safe water to all customers.

### Water services in Kisumu

The WASCO of Kisumu – a city in the western part of Kenya on the shore of Lake Victoria, covering an area of 297 km<sup>2</sup> with a population of almost 400,000 people – is Kisumu Water and Sewerage Company (KIWASCO). The company became operational in July 2003. A large proportion of the municipality's

population is concentrated in the informal, low-income settlements, most of which are not connected to the KIWASCO water supply network. One such un-served low-income settlement was Wandiege. In a bid to improve their water supply and sanitation situation, the residents of Wandiege started a community water supply project.

### From inception to project proposal

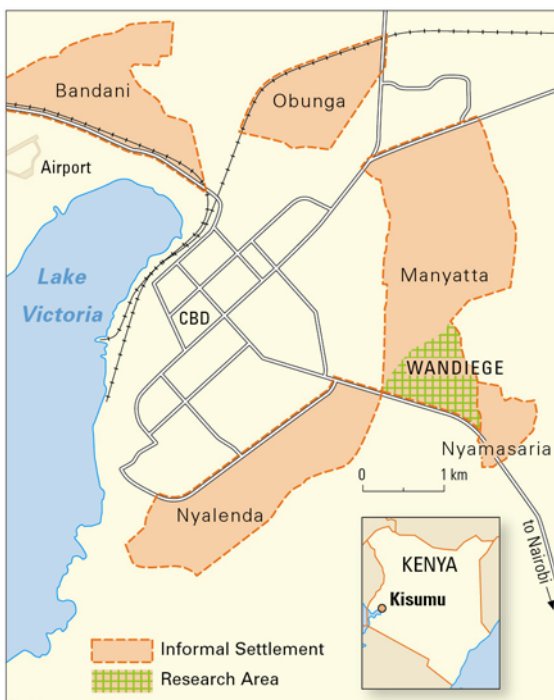
Water used to be very scarce in Wandiege. The only source of water was the nearby River Auji, on which the residents largely depended. The sanitation situation was equally poor. The idea of a community water supply project in Wandiege was initiated in the last quarter of 2001 through a programme in Wandiege Primary School focussing on health and development in Africa. In the course of achieving its objectives, the programme noted that water and sanitation was a major concern in the area. Through the programme, a self-help group was established, initially to sensitize the community about the water and sanitation situation in the area and about the need for an intervention. With the sensitization, community support and technical advice from an NGO called SANA International, the idea of a community water supply project was born.

Based on the "vision" of "a society where every resident enjoys safe clean water and appropriate sanitation facilities", the project's objectives were as follows:

- to improve access to safe and clean water to the residents by 500 water outlets/connections within 3 years;
- to improve the health status of the residents through provision of appropriate sanitation facilities; and
- to improve household income of the residents through provision of affordable safe and clean water for both domestic and commercial use.

The two "strategies" through which to accomplish these objectives were (1) community participation and involvement, and (2) community mobilization and sensitization. These "strategies" were to ensure a feeling of full ownership of the project by the community.

The project proposal was quite unique (certainly in Kenya) because it involved not only the drilling of a borehole and the construction of a standpipe, but in fact a whole water supply system – including storage tanks, pipelines, water kiosks, water meters, etc. – independent from KIWASCO. Since the borehole was planned to be drilled in the compound of Wandiege Primary School, the proposal also included the



creation of a power line to the school. Finally, the construction of a number of appropriate sanitation facilities (so-called Ecosan and Sanplat latrines) was also included.

Most of the funding was acquired from a Dutch NGO called Cordaid and the French Embassy, with some additional funding from the local Constituency Development Fund. An amount of one million shillings had to be raised by the community itself, which was largely realized by means of labour inputs.

### Implementation

The implementation started in 2001, with SANA International as the implementing agency. The Ministry of Water and Irrigation, together with SANA, provided technical advice. The project was completed in 2006 and by then it constituted a borehole with a depth of 110 metres, a pumping station, a tower with two storage tanks of 10,000 litres each, a small office at the bottom of the tower, a pipeline system of about 5 km, seven water kiosks, and 60 private connections to homes.



The pumping station annex water kiosk and the water tower  
[Photo: Dick Foeken, 2012]

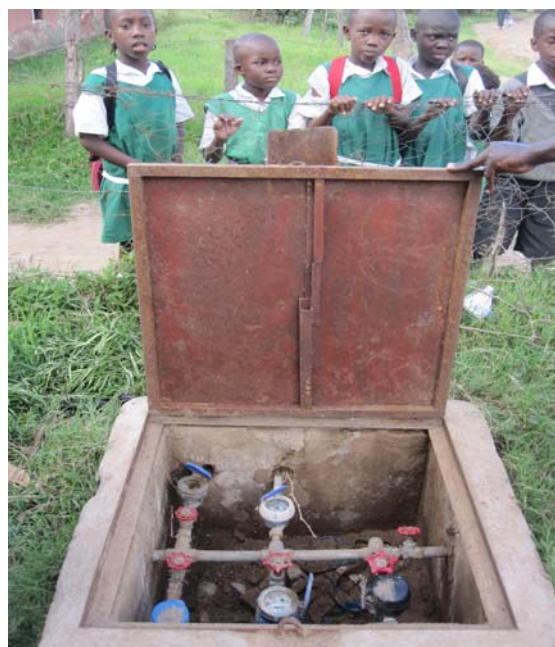
The borehole, pumping station and tower are built in the compound of Wandiege Primary School. In return, the project provides free water to the school, as well as electricity in one of the school's blocks. The kiosks are geographically located based on the service population and needs assessment. Three of them are located in school compounds. As for sanitation facilities, by October 2008, 14 ecosanitation (Ecosan) and 91 sand-platform (Sanplat) latrines had been constructed.

About one year after its completion, the project became an official WASCO – Wandiege Water and Sanitation Company Ltd – after signing a Service Provision Agreement with Lake Victoria South Water Services Board. As such, it obtained the same legal status as its 'big brother' KIWASCO.

The Company is run on a non-profit basis, i.e. any profits made are used for further investments in the infrastructure and whatever is needed for further development. Due to a sound financial policy (see below), the Company has been able to extend its network system and by May 2012, another 3 km of pipeline was laid, 24 water kiosks constructed (most of which run by private persons), 148 metered connections established and a chlorine doser for water

treatment installed. All these connections together serve a population of 10,000-15,000 residents.

All connections are metered. However, instead of placing the meters at the end of each subsidiary pipe (that is the pipe branching off the main pipe and leading to a connection), each meter was placed in a meter chamber (with 6 to 16 meters per chamber) at the point where the subsidiary pipe branches off the main pipe. This system prevents other people from illegally tapping water from the subsidiary pipe, because that would mean that the person with the legal connection has to pay for the illegal connections as well. Moreover, any burst or leakage in the subsidiary pipe will immediately be reported to the Company, because nobody wants to pay for water he/she has not received. For the connected households, it means that the flow of water is very reliable (at least as long as there is no power cut, which happens quite frequently). For the Company, the net result is that the percentage unaccounted-for-water (water that is supplied but not paid for) is extremely low.



A meter chamber with six connections [Photo: Dick Foeken, 2012]

### Operations

The original water kiosks are operated and managed by the Company and are together with the private connections the main source of income. The kiosks are run by young people from the neighbourhood who are employed by the Company. One of these is also the pump operator. Three other people are employed by the Company, namely a revenue clerk, a line patroller and a security officer. The privately-run water kiosks are supposed to achieve one of the project's objectives of alleviating poverty in the community through income-generating activities. These kiosks are basically a water point and a "structure" where people come to buy water. Some of them have a storage tank for water used when there is no running water from the pipe.

According to the Chairman of the Board of Directors, the *connection* and *consumption* charges are “very affordable” and “the lowest” in the area. Both tariffs are based on the project’s primary principle of affordability and poverty alleviation. That is, the tariff should be as affordable as possible while those members in “water business” could get a “socially acceptable” profit even when they employ a person in their business. In addition, the lower connection and consumption charges are a way to encourage more connections to increase the company’s revenue.

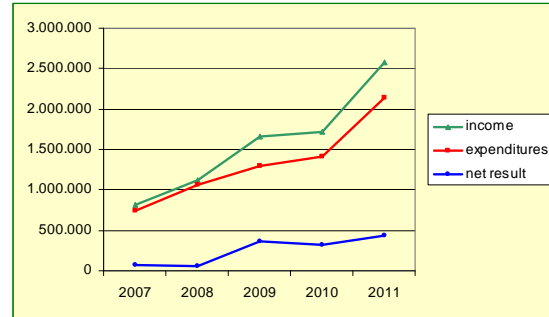
In May 2011, connection costs as well as consumption costs for both individuals and institutions had to be raised. This was “inevitable” because of the increasing operational costs, such as wages, maintenance costs and especially costs for electricity. This meant for instance that the price of water for individual consumers from a water kiosk increased from the original one shilling per jerry can of 20 litres to two shillings. Yet, compared with ‘normal’ prices, this is still relatively low.



One of the water kiosks operated by the Company  
[Photo: Dick Foeken, 2008]

The first two years showed a modest positive financial result of Ksh 67,000 and Ksh 55,000, respectively (see Figure 1; Ksh 100 is about 1 Euro). The following two years, the company did better, given an increase of 48% in the year 2009 compared with the previous year. Because the expenditures rose less, the net result grew more than six-fold. The net result in 2010 was slightly less than in 2009 – because expenditures rose more than income – but increased again in 2011. On the whole, the figures suggest a sound financial policy.

Figure 1 Financial results, 2007-2011 (in K-shillings)



Source: Wandiege Company office (September 2011 and May 2012)

### Management

All “paid-up and registered members” of the project are shareholders in the Water Company. The shareholders (individuals and institutions) are represented by a duly elected Board of Directors. The Board consists of the Chairman, Secretary, Treasurer, a representative from SANA International and from Wandiege Primary School and five other members. The role of the Board includes:

- representing the shareholders in all aspects of decision-making;
- negotiations on behalf of the Company;
- policy making;
- looking after the welfare of the employees;
- acting as a “management team” (since none was in place in May 2012).

More often than not, the Board makes most of the decisions, on behalf of the shareholders. During the Annual General Meeting the shareholders are normally briefed on all the decisions that the Board made on their behalf. However, in cases where shareholders have to be consulted, a Special General Meeting is called. Except for some cost compensations, the Board members do not earn a salary.

For its overall welfare, the Wandiege community works through a number of task forces to coordinate issues of common interest to the community. Water and sanitation, solid waste management, and education are examples of some of the existing task forces. In addition, the community has formed a larger Wandiege Residents Association. All these are off-shoots of the water and sanitation project.

### Challenges

Though the project is generally considered as a success story – and even as an example for other urban informal settlements – the Company has experienced a number of challenges. For instance, “passing” water pipes through people’s homes and getting land to put up the water kiosks has been a major challenge because land tenure in Wandiege is “freehold”. This required sensitization and lengthy negotiations. Another challenge concerns cases of theft and vandalism of pipelines and meters, causing unaccounted-for-water and additional replacement costs. “Vandalising” of meter chambers (theft of meters) turned out to be so problematic that the Company was forced to revert to the traditional system of installing the meters at the consumers’ entry point.

Only the 'safe' meter chambers (such as those in school compounds) could be maintained.

"Local politics" has occasionally impacted negatively with the intended operations of the company. For example, a local bank, which had (in 2010) agreed to provide the Company with a loan, "pulled out" after it emerged that the government had intentions of taking over the project. Some politicians argued that the project was donor-funded and therefore is a government project. Being a registered community water service provider recognized by Lake Victoria South Water Services Board has so far solved this challenge and misconception. Other challenges include frequent interruptions in power supply and occasional non-payment of water bills.

### Impact on the local population

To measure the impact of the project on access to safe water and on the people's health situation (two of the three main objectives), a survey was held among a group of Wandiege households (and divided into a group with private connections and a group without) and a group of households in an informal settlement comparable with Wandiege before the project in terms of access to water and sanitation (Bandani). The figures in Table 1 show that in all respects the Wandiege households – and the ones with a private connection in particular – were better off than the Bandani households.

Table 1 Impact of the project on the local population

	Wandiege connected (N=29)	Wandiege unconnected (N=34)	Bandani (N=60)
Time spent to fetch water*	7 minutes	31 minutes	42 min.
Water consumption/h/hold/day	135 litres	116 litres	98 litres
Water consumption/capita/day	29 litres	25 litres	20 litres
Costs of water/month	512 sh.	503 sh.	716 sh.
Incid. <sup>o</sup> of water-borne diseases**	14%	29%	42%
Access to improved sanitation facil.	43%	7%	2%

\* Including walking and waiting (full cycle). \*\* In the period of 2008 to November 2009. Source: Mutune 2012.

### The future

The Company is constantly working on further improvements and extensions to fully realise its objectives and "vision" of "a society where every resident enjoys safe clean water and appropriate sanitation facilities". In 2011, a piece of land had been acquired at a cost of Ksh 600,000 (from the Company's own funds). On that plot, a water tank with a capacity of 75,000 litres has been built and filled with water from the KIWASCO supply system, before being distributed to the Wandiege customers. Not only does this increase the capacity of the water supply, it also means that if one of the systems does not function, the other can serve as a fallback. The Company negotiated a reduced price with KIWASCO, so that still some profit can be made. On the same plot, a two-storey building was under construction, with a sanitation block at the ground level and an office and conference room above it. Both the water tower and the building are paid with a loan from Cordaid (through SANA International).

In addition, there are various plans for the (near) future:



The new water tank and the new office / sanitation block / conference room under construction [Photo: Dick Foeken, May 2012]

- Since the system is dependent on the provision of 'external' electricity, the Company hopes to develop its own, alternative power source.
- The management structure will be transformed. The idea is that a management team will be created for the daily management, responsible to the Board. The Company also aims to engage semi-autonomous professional operators.
- Acquiring a computer to automate their management and office operations. This would for instance make it possible to bill payments directly to the bank account.

The sustainability of the project will to a great extent depend on how the community nurtures and enhances the factors that have contributed to its success, namely, strong community participation, commitment of members, ownership of the project, and the delicate balance between business principles and access to safe and affordable water. These should be coupled with appropriate and sustainable sources of energy, alternative sources of water, innovative management, operations and maintenance, and continued partnership with KIWASCO.

### Publications

S.O. Owuor & D. Foeken (2012), 'From self-help group to water company: The Wandiege Community Water Supply Project (Kisumu, Kenya).' In: A. Leliveld, J.B. Gewald & I. Pesa, eds. *Transforming Innovations in Africa*. Leiden/Boston: Brill Academic Publishers.

H. Ching-Chung (2011), *Access to water and sanitation in the informal settlements of Kisumu, Kenya*. Nijmegen: Radboud University, masters thesis.

T. Mutune (2012), *The effect of water interventions on the urban poor: An analysis of the Wandiege Community Water Supply Project in Kisumu*. Nairobi: University of Nairobi, masters thesis.

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