Small investment, big impact

In Nairobi's slums, simple sanitation can be good for business

Dennis Ochieng balances precariously with one leg on either side of a narrow trench running through a small alleyway in Mukuru, a network of slums around Nairobi's industrial area.

"Before, this place was a mess," he says, explaining that the trench used to be full of "flying toilets" - plastic bags full of urine and faeces. Today those bags are nowhere in sight. "It's great," agrees Alex Wekesa, a 26-year-old businessman who runs two one metre-by-1.5 metre Fresh Life toilets.

The toilets are made by Sanergy, a Kenya-based social enterprise, and sold to individuals for around $500 each. A 14-strong "Fresh Life frontline" team collects the waste each day and takes it to a processing site, where it is turned into organic fertiliser.

The first toilet was launched last November, and there are now over 100 in Mukuru. Fresh Life operators receive training, support and supplies.

"The small difference we are making is great," says Ochieng, operations manager for Sanergy, which plans to have 1,000 toilets by 2015.

Wekesa has had his toilets for about three months and gets around 50 daily customers, mostly women. He charges around four cents per adult, and two cents for children. He hopes to make enough money to buy extra machines for his dry-cleaning business. "The cleanliness is the main thing [the customers] like. The soap is there, the water is there," says Wekesa. His female customers really appreciate the mirror on the toilet door, he adds.

In September, Sanergy entered into a partnership with Kiva, a web-based non-profit group that facilitates micro-lending, to help would-be operators buy its toilets.

Around 60% of Nairobi's residents live in slums, which occupy less than 6% of the city's residential land. Sewerage, piped water and rubbish collections are virtually nonexistent, meaning that the poorest people have to pay for things wealthier residents of the city take for granted. There are privately operated pit latrines, which people pay around two cents to use, but they are often dirty, smelly and have no paper or water.

There is also a security issue, especially for women needing to go to the toilet at night. In a 2010 report, Risking Rape to Reach a Toilet, Amnesty International surveyed 130 women living in four slums in Nairobi, including Mukuru, and found: "The shortage of toilets and places to wash in the slums exacerbates women's insecurity and heightens the risk of gender-based violence."

As part of its commitment to the UN millennium development goals (MDGs), Kenya agreed to halve the proportion of people without sustainable access to sanitation between 1990 and 2015. But Amnesty says that, by failing to address the needs of women in informal settlements, the government is likely to miss its target.

Kenya is not alone: advocacy group WaterAid says the MDG sanitation goal is likely to be missed by a huge margin. "The majority of developing countries are seriously off-track and, unless urgent action is taken now, sub-Saharan Africa will not meet the target for over 150 years," it said in April.

Sanergy co-founder Lindsay Stradley says she was motivated to start the scheme by her desire to tackle urban poverty. Sanitation, she says, lies at the heart of that mission.

"The more people are healthy, the more they are able to work and be productive, the more their children are able to go to school ... if you have to walk very far to access sanitation, that takes a lot of your time. There is a huge security risk that goes along with that, which has ... huge psychological and public health effects," Stradley says.

Sanergy's main advantage, says communications officer Kate Rose, is that it adds value all along the chain, thanks to its waste processing. "No one else is really doing that in this area," she says.

Fresh Life toilets have urine-diverting squat slabs to separate solid waste from liquid. At the processing centre, solid waste is placed in large wooden boxes for composting, while the urine is placed in plastic containers and left in the sun, which burns off the pathogens.

The Bill and Melinda Gates Foundation is encouraging innovation in waterless, hygienic toilets that do not need to be connected to a sewer through its Reinvent the toilet challenge, and has so far invested around $6.5m. The foundation says that every year, food and water tainted with faecal matter cause up to 2.5bn cases of diarrhoea for children under five, resulting in 1.5m deaths.

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Clean and safe ... Alex Wekesa with a Fresh Life toilet Clar Ni Ch

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