

Small bag offers solution to Kenyan slum's 'flying toilets'

November 13 2013, by Aymeric Vincenot

The usually straightforward act of going to the toilet is far from simple in Kibera, the sprawling slum on the edge of Kenya's capital.

Hundreds of thousands of people, whose homes are little more than makeshift shacks, are crammed into an area that lacks the most basic water and [sanitation facilities](#), and where just one public toilet is available to every 300 people.

The result is two-fold: First, people become adept at holding it in, often spending hours in discomfort. And second, they eventually find relief by doing the necessary in a plastic bag, and then tossing it out onto the street or path outside.

Hence "flying toilets", one of the many scourges of life in Kibera.

"Sanitation is one of the world's biggest problems. Forty percent of the world's population don't have toilets. They say about 70 percent of the diseases come from the lack of sanitation, where water is polluted," said Camilla Wirseen, director of a project that proposes an innovative solution to the problem.

Wirseen, who works for the Swedish firm Peepoople, is using Kibera as a testing ground for the Peepoo, a biodegradable, self-sanitising, single-use toilet that could one day provide a cheap, smart fix for the world's billion slum dwellers.

The Peepoo is a slim bag with a larger liner tucked inside, both made of biodegradable plastic and designed to fit over a small pot. Inside the bag are a couple of spoonfuls of granulated urea, an ammonia that eliminates dangerous pathogens contained in faeces and urine within two to three weeks.

After use, the bag is knotted and taken to a drop-off point—where the family gets a small refund on the bag's small purchase price because the contents are sold on for fertiliser.

"Before the project started, flying toilets were everywhere," Wirseen told AFP, explaining that Kibera residents dare not go out at night to relieve themselves because of security fears.

"It's also a social problem: women hold all day."

'A question of dignity'

Lydia Kwamboka, a 29-year-old Kibera resident and happy Peepoo user, said the freedom to answer the call of nature whenever necessary had had a profound impact on her life.

"Where I stay there are no toilets. When my kids had diarrhoea at night, I just gave them a [plastic bag](#) and dumped it in the drainage in the morning. You had to be careful what you stepped on," she said.

"When Peepoo was brought in, it changed almost everything," added Ann Wambui, a schoolteacher and another user of the bag.

"You can use it alone. Once used you dispose of it and Peepoo is carried away the same day, while you need money to get the latrines cleaned," she said.

Peepoo saleswoman Patricia Okello, aged 51 and also a Kibera resident, said she believed the part of the slum where Peepoo has been testing the bags since 2010—currently to the tune of 5,000 a day—was becoming a cleaner, healthier place.

"Before Peepoo, this place was very dirty, the water we drank was not clean. Now we don't have sicknesses like cholera and typhoid anymore," she said. "It has brought a big change in my life."

Wirseen said the aim was for the Kibera project to expand ten-fold over the next year, and twenty-fold by the end of 2015.

While Peepoo's business model is still unproven as a long-term, sustainable solution—after all, it depends on the world's poorest people seeing a benefit in paying 200 Kenyan shillings (around two dollars/euros a month) for something they used to do for free—the Kibera testing ground has at least proved that the product works.

In addition, the firm is hoping the bags can be stockpiled for humanitarian emergencies in order to help refugees from conflict or victims of natural disasters like earthquakes, floods or typhoons before proper sanitation structures can be put in place.

Above all, the project helps highlight how going to the toilet cannot be taken for granted.

"Sanitation," Wirseen said, "is a problem of dignity."

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Citation: Small bag offers solution to Kenyan slum's 'flying toilets' (2013, November 13) retrieved 10 April 2024 from

<https://phys.org/news/2013-11-small-bag-solution-kenyan-slum.html>

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