



Urban Women Grow Food in Sacks

February 2010

Driving through the crowded streets of Nairobi's Kibera slums, it's nearly impossible to describe how many people live in this area of about 400 hectares, the equivalent of just over half the size of Central Park in Manhattan .

Everywhere you look, there are people.

Anywhere from 700,000 to one million people live in what is likely the largest slum in sub-Saharan Africa.

And despite the challenges people here face – lack of water and sanitation services, space and lack of land ownership are the big ones – they are thriving and living.

Small gardens produce big benefits in nutrition and income.

We met a “self-help” group of female farmers in Kibera who are growing food for their families and selling the surplus to their neighbours.

Such groups are present all over Kenya – giving youth, women and vulnerable people the opportunity to organize, share information and skills and ultimately improve their well-being while giving them a voice that otherwise would not be heard.

The women we met were growing vegetables on what they call “vertical farms or gardens.”

But instead of skyscrapers, these farms are in tall recycled sacks filled with soil, and the women grow crops in them on different levels by poking holes in the bags and mainly planting seeds and seedlings of spinach, kale, sweet pepper and spring onions. The women's group received training, seeds and sacks from the French NGO Solidarites to start their sack gardens.

The women told us that more than 1,000 women in their neighborhood are growing food in a similar way – something that the International Red Cross recognized as a solution to food security in urban areas during the 2007 and 2008 political crisis in the slums of Nairobi .

For about a month, no food could come into these areas from rural Kenya, but most residents didn't go without food because so many of them were growing crops – in sacks, vacant public land such as that along rail lines and along river banks.

These small gardens could produce big benefits in terms of nutrition, food security and income.

All the women told us that they saved money because they no longer had to buy vegetables from the markets or kiosks, and they claimed that the vegetables were fresh and tasted better because they were organically grown – but that sentiment also might come from the pride of growing something themselves.

Mary Mutola has farmed on this land for over two decades.

She and the other farmers – more women than men – don't own the land where they grow spinach, kale, spider plant, squash, amaranth and fodder.

Instead, the land is owned by the National Social Security Fund, which has allowed the farmers to use the farm through an informal arrangement.

In other words, the farmers have no legal right to the land.

They've been forced to stop farming more than once over the years, and although they're getting harassed less frequently, they still face challenges.

About a year ago, the city forced them to stop using untreated wastewater (sewage from a sewer line which they tapped into) to both irrigate and fertilize their crops.

Although wastewater can carry a number of risks, including pathogens and contamination from heavy metals, it also provides a rich – and free – source of fertilizer to farmers who don't have the money to buy expensive fertilizer in stores and other inputs.

And because of longer periods of drought (likely a result of climate change) in sub-Saharan Africa, the farmers didn't have to depend on rainfall to water their crops.

But even with the loss of their main water supply and nutrient sources, Ms. Mutola and the other farmers are continuing to come up with innovative ways of growing food crops – and incomes – from this farm.

In partnership with Urban Harvest, the farmers are not only growing food to eat and sell but, perhaps surprisingly, also becoming suppliers of seed of traditional leafy African vegetables such as amaranth, spider plant and African nightshade for the commercial vegetable rural farmers who supply the Nairobi city with these high-demand commodities.

Kibera farmers have always grown fodder for livestock feed for both urban and rural farmers.

But by establishing a continual source of seed for traditional African vegetables, they're helping dispel the myth that urban agriculture benefits only poor people living in cities.

Using very small plots of land, about 50 square meters, and double dug beds, the farmers can raise seeds very quickly. Fast-growing varieties like amaranth and spider plant take only about three months to produce seeds, worth about 3,000 Kenyan shillings (about \$40) in profit.

And these seed plots – because they are small – take very little additional time to weed and manage. The future for these farmers continues to be uncertain.

Their land could be taken away, the drought could further jeopardize their crops, and the loss of wastewater for fertilizer could reduce production.

But they continue to persevere despite these challenges.

Nancy Karanja is a professor at the University of Nairobi. Mary Njenga is a Ph.D. student at the University of Nairobi. Danielle Nierenberg is a senior researcher with the Worldwatch Institute.