THE CONSTANT GARDENERS

FACED WITH INCREASING DROUGHT AND DESERTIFICATION, AFRICANS ARE FOCUSING ON A NEW FARMING FRONTIER: THE CITIES

BY JOCELYN C. ZUCKERMAN

A NEW KIND OF FARM

in Dadaab, Ken.

Aid-related efforts to provide
food for the 230,000 displaced
people have led to the
creation of an "urban garden,"
where residents of the
refugee camps grow vegetables
and fruits for their own needs.
NRDC FEEDING THE CITIES

MARK IZEMAN
Senior attorney and director of NRDC’s New York urban program, spearheading its regional food initiative.

Urban agriculture can clearly provide food to disadvantaged populations in African cities. What is happening here in the United States?

According to the U.S. Department of Agriculture, more than 23 million people in America live in food deserts—areas, often in low-income communities and communities of color, where healthy and affordable food is hard to get. And studies have shown that limited access to healthy food choices often leads to poor diets and high levels of obesity and other diet-related diseases. Eliminating food deserts is therefore a vital issue for reasons of health and social justice.

One of our main goals in our effort to boost the production, distribution, and consumption of sustainable local food in these communities is to create a wholesale farmers’ market at the massive Hunts Point food market in the Bronx. This would establish for the first time a distribution hub where small- and medium-size growers would be able to sell directly to supermarkets, restaurants, and other food outlets. An important consideration in creating the wholesale market is to help scale up the availability of fresh food in disadvantaged neighborhoods that are considered food deserts. By the way, the folks who run the city’s more than 50 retail farmers’ markets, GrowNYC, are key partners in pushing for this project. Another great initiative, which is already under way in some neighborhoods, is to bring local produce—and free small refrigerators to keep it fresh—directly to small bodegas that have never offered such healthy food. In Chicago, to cite another example, community organizers have developed the idea of a mobile supermarket to bring fresh, healthy produce to underserved areas.

What other initiatives are you working on to get more healthy food to the residents of New York City?

We are working with a grassroots group called Catskill Mountainkeeper to protect and expand farming in the nearby Catskill region so that it can become a larger source of fresh, healthy food for the city. At the same time, we’re working to ensure a steady demand for local food. One way to do this is to push for new laws and policies that would leverage the enormous purchasing power of New York City agencies—including our more than 1,500 public schools—to boost demand for food from nearby farms.
Longer, Hotter Dry Periods Are Already Making It Harder for African Farmers to Know When to Sow and Harvest Their Crops

In fact, city farming has a much longer history, says Lee-Smith, who has been engaged in this work for more than 20 years. The practice is called Urban Harvest, based at Maitinga. "It’s been ironed out of urban thinking and planning" since the industrialization of Europe in the 19th century, she says, "because there was the idea that to be efficient you had to get as close to the production point as possible, and while the rest stayed out in the rural areas and did the menial job of creating food." In a place like sub-Saharan Africa, though, where many of the regions are agricultural and have rich soils, "there is no need to have such a large city," she says. "What is needed is a system of smaller, more efficient farms." 

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a staple among street-food vendors in this seaside town. The green expanse is the size of two football fields. (If we shield our ears from the roar of the highway behind us and ignore the massive electrical plant on our left, we can almost imagine we’re in the countryside.) We walk across a rickety bridge that spans a sewer choked with plastic bags and dirt-caked bottles and past a little open-air shed, where seven or eight men in long robes are praying on woven mats. Most of these farmers are Muslims from up north, Amoah explains, who left the countryside for better livelihoods in the city. “This phenomenon is intensified due to climate change,” he says, “because now they are having more floods due to heavy rains within a short period of time. And they are having very long dry seasons. If the rainy season used to be few months, now it’s three or four.” In the past few years, many families have abandoned the region just south of the Sahara known as the Sahel—they moved south to areas of greater rainfall in Ghana, Guinea, and Nigeria—that Nigerian police now turn people away at the border.

A recent survey found that only 15 percent of the 70 or so wastewater and fecal sludge treatment plants in Ghana work as they were meant to, and that even if all functioned properly, less than 10 percent of the country’s urban wastewater would be treated. To water their crops, these farmers use a combination of water from the Oyinsua stream on our right, which catches graywater from the surrounding communities, and the even dirtier stuff from the sewer we’ve just crossed. In 1999, Amoah tells me, the municipal government in Accra banned the use of wastewater for farming, but most continued to use it anyway, occasionally at the cost of arrest. Given the numbers of people who continue to flock to Accra, though, and the fact that most aren’t likely to find jobs there, the government eventually decided to compromise. A revision of the law, adapted with the help of IWMI and based on the recent WHO guidelines for clean and practical ways to improve food safety despite the use of wastewater, is currently being evaluated by the city government.

In the meantime, farmers like Fureini Bukari, a 45-year-old from northeast Ghana who looks like the pop star Seal, have begun implementing some of those low-tech measures on their own. They hold their watering cans closer to their crops, for example, and equip them with rosettes on the mouths to avoid splashing the often-contaminated dirt. When they get water from the pond they’ve dug to collect it, says Bukari, stepping onto a little wooden plank, they no longer walk into it so as not to stir up the disease-causing germs settled at the bottom. He lifts a plastic tarp off a two-foot-high mound. He’s just learned how to safely compost poultry manure, and he’s a few days into the six-week process. (Some 95 percent of Accra’s 1,000 or so urban farmers rely on poultry droppings to fertilize their crops.) They store their vegetables in well-aerated baskeis rather than in bags, he says, and some of them stop watering a few days before harvest so that any pathogens die off. “Now we are able to tell the
public that even though we know there are risks,” Bukari says, “we take measures. People from the rural areas come here to learn.”

THE FOG HANGS LOW OVER THE CITY ON THE MORNING WE MEET Mary Njenga at her office on the hilly campus of the University of Nairobi. In addition to teaching here, she is working on her Ph.D., focusing on charcoal production with an aim toward fighting climate change, protecting the forests, and—always paramount for her—befriending the lives of women. Growing up on a farm west of Nairobi, Njenga says, she began noticing how damage to the natural world rippled out into other problems. “I saw what was happening around us,” she explains, recalling the trips she and her sisters would make into the forest to collect firewood. “Trees were being cut down. The river became scarcer, and there was a lot of conflict.” Women had to work farther to get wood, keeping them from more important pursuits, including earning money. Farming got harder and harder, and locals abandoned the countryside for lives in the city. Njenga prevailed upon her father to send her away to school, where she woke up at 5:00 every morning to hit the books, and by the time she reached secondary school—the only one of 11 siblings to get that far—she had decided to focus on the environment.

Fruit of their labor

FRUITS OF THEIR LABORS
Mary Njenga, left, helps Catherine Wanjiru cultivate. Right, Francis Wachira serves a homegrown rabbit dinner.

Mary Njenga’s numerous missions (“I want to be a renowned scientist,” she declares) is to persuade policy makers to integrate not just farming and fuel policies but also waste management into urban development plans. An estimated 2.6 billion people in the developing world lack access to basic sanitation services, she explains; her Kibera women’s groups have also begun selling small biodegradable bags designed to hold human waste (urea crystals inside kill off pathogens) that can be collected and eventually processed into fertilizer.

Last month, UN-HABITAT, THE UNITED NATIONS ORGANIZATION charged with promoting sustainable towns and cities, released a report titled Cities and Climate Change, in which it called for the mainstreaming of urban agriculture in global climate change and food security agendas.” And these days, thanks largely to the work of organizations like Urban Harvest, Masinga, and IWRM, governments across Africa are putting in place policies that encourage farming and resource recovery in their cities. Kenya’s 2009 national land policy has a section devoted to urban agriculture (which Njenga helped to write), and a draft of the country’s first-ever national policy focused on city farming and animal husbandry is currently under review. Last year Ghana passed the continent’s first national irrigation policy, which encourages the safe practices for wastewater irrigation that Amoah had told us about, and in the Ugandan capital, Kampala, the city council recently added a department of urban agriculture. Some municipalities have begun to grant tax exemptions to landowners who allow farmers to use vacant acreage, and a few are now including plots designated for agriculture in their land-use plans. Kenya recently introduced a system of loans for small urban-farming enterprises, and other cities have reduced tariffs for irrigation water and are providing incentives for composting and reusing household wastes.

“I think there’s a bigger ideological battle going on now in the field of agriculture,” Leo-Smith says, pointing to the 2008 report released by the International Assessment of Agricultural Knowledge, Science and Technology for Development, a global consortium established by the World Bank and various U.N. organizations to assess the role of agriculture and make recommendations for the future. Widely acknowledged to be the most comprehensive analysis of world farming to date, the report called for a shift away from industrial agriculture and toward the small-scale farmer, wherever she might be. “People have to change their idea of a sterile, futuristic city with no farmers,” she says, into the idea of a city that integrates farming into all aspects of planning. “These things will change,” she adds, “and I would be vastly entertained to sit around and watch all the changes happen.”

Developing-world slums have a well-deserved reputation for being hell on earth, but it strikes me on this trip that in many ways these places are ahead of the game. People like the farmer Joel Salatin, the cantankerous hero of Michael Pollan’s best-selling The Omnivore’s Dilemma, are routinely held up as visionaries for the kind of complete-nutrient-cycle, sustainable-agriculture operations they run in the comfortable United States, but Africa’s urban farmers are doing the same with far, far less. And with the earth’s population expected to grow to 9.1 billion in 2050—more than four billion of whom will live in countries chronically short of water—we’d probably be wise to pay attention.

OUR LAST NIGHT IN NAIROBI... ANTONIO AND I JOIN FRANCIS Wachira for a rabbit dinner prepared by his 20-year-old son, George. Sitting in the family’s cramped home, where a tablecloth draped on a string separates the “living room” from a sleeping area just big enough to accommodate his twentysomething daughters’ tiny beds, we listen as he recounts his journey from impoverished construction worker to recent international traveler. A few months earlier, through an exchange arranged by Mazingira, Wachira and a handful of other African farmers had spent time in the United States with outfits like Denver’s GrowHaus, which distributes fresh produce in poor neighborhoods, and Will Allen’s Milwaukee-based Growing Power. “I was in Denver for six years,” he begins. “Six weeks,” corrects his wife, a little wearily. “She heard this story before, as have I. But I’m not yet tired of listening to this man who’d never previously boarded an airplane talk about how he delivered a lecture at an American university that culminated with the crowd on its feet and chanting ‘Rabbit King! Rabbit King!’ He’s standing now, too, recounting the part where he explained the concept of the vertical gardens. The Americans had crowded around afterward, begging for more details. ‘They all wanted Wachira,’ he says with wonder, ‘to go over there and train them.’”