

## STATE OF THE WORLD 2011 Innovations that Nourish the Planet

### State of the World Brief Series Chapter 10. Feeding the Cities



#### Key Messages

- Cities around the world are growing at an extremely rapid rate.
- Urban infrastructure and economies are struggling to keep pace with population growth, leaving the urban poor at serious risk of food insecurity.
- Urban agriculture can create food security and economic opportunity in low-income communities in cities everywhere.

#### The Problem

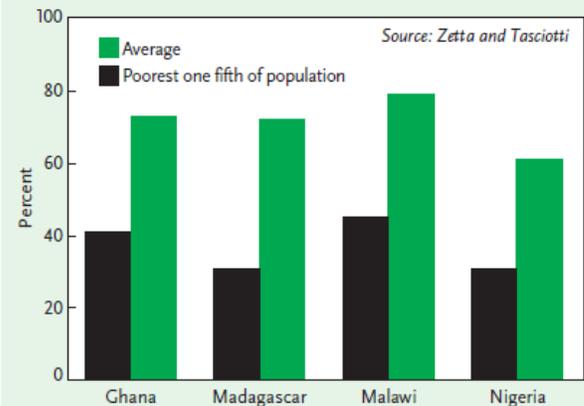
Urban populations have been growing rapidly over the past two decades. In 2008, the share of people living in urban areas broke 50 percent for the first time, and UN projections place more than 65 percent of the global population in urban centers by 2050. The rate of urbanization is especially high in the developing world, particularly in sub-Saharan Africa and South Asia, as people immigrate to cities from rural areas in search of economic opportunity.

Such rapid growth has crowded cities, forcing many urban inhabitants into slums and leaving them vulnerable to poverty. Poverty and food insecurity often go hand in hand. With little money, poor urban households must devote as much as 60–80 percent of their income to food. Political instability and inadequate infrastructure can also restrict food supply chains, creating competition over limited resources and leaving the poorest hungry. As urban centers struggle to keep up with their rapidly growing populations, food insecurity is becoming an urgent problem.

#### Innovations/Solutions

Many urban immigrants who come from rural areas use their agricultural knowledge and skills to create urban agriculture systems that provide food and extra income. An estimated 800 million people practice urban agriculture, a quarter of whom grow

Figure 10-1. Urban Households Participating in Agricultural Activities, Selected Countries



food for market. Many of these people are also among the poorest in their nations. (See Figure 10-1)

Roughly 15–20 percent of the world's food is grown in urban areas, a figure that is likely to increase as cities grow. Projects in both developing and developed nations are working to enhance urban agriculture efforts. In sub-Saharan Africa, the Educational Concerns for Hunger Organization (ECHO) has helped farmers build gardens using old tires to create beds. And Harvest of Hope has helped organize urban Community Supported Agriculture (CSA) programs in Cape Town, South Africa, purchasing excess produce from urban gardens and redistributing it in shares to area schools. In the United States, community gardens such as the Red Hook Community Farm in Brooklyn, New York, have cropped up in some of the poorest urban areas.

These and other initiatives have helped build urban agriculture as a viable food source for urban citizens, providing food security and income. A survey from the 1990s suggests that in Kampala, Uganda, children from homes that farmed were better nourished than those from homes that did not. And research in Lomé, Togo, revealed that people with market gardens earned up to 10 times the monthly wage of others and were able to save money that would otherwise be spent on food.

Urban agriculture provides many additional benefits that rural agriculture does not:



(Bernard Pollack)

**Close to home (and market).** Produce from urban farms and gardens does not need to travel as far as that grown in rural areas to reach the table, reducing production costs, post-harvest waste, and fossil fuel use. Proximity to markets has also proven useful in situations where supply chains from rural areas have been interrupted. For example, civil unrest following Kenya's 2008 elections disrupted imports to Nairobi, but people avoided going hungry thanks to numerous farms and gardens in and around the city.

**Empowering women and building communities.** Studies show that the majority of urban farmers are women. After providing enough food to feed their families, many women are able to develop small enterprises selling their extra produce. In Kibera, the largest slum in Nairobi, Kenya, Urban Harvest has helped women build "vertical farms" using sacks of soil in which to grow their vegetables. Organizing around these gardening operations, the women share business ideas and technical know-how, empowering each other. Similarly, urban community gardens act as organizing spaces, providing a forum where community members can exchange ideas and discuss community issues and problems.

**Improving urban environments.** With limited money and land, many urban farmers are adept at utilizing urban waste streams to build their soil and grow their crops. Garbage becomes compost or livestock feed, and farmers use nutrient-rich waste water to irrigate crops. By re-using these waste products, urban agriculture reduces the amount of refuse going to landfills, the amount of urban pollution due to sewer waste, and the overall amount of water used in cities. Urban agriculture also creates green

spaces that improve air quality, mitigate high temperatures and water runoff, and provide habitat for urban animals. Gardens also beautify urban landscapes, improving the overall quality of life.

## Looking Ahead

Urban agriculture has proven to be an important component of urban food systems and will likely grow in importance as a greater share of the global population moves to cities. However, it remains a low priority both politically and in land-use planning. Mainstreaming urban agriculture and providing it with proper policy support could make it a more sustainable venture and develop its potential to both feed cities and provide economic opportunity.

**Creating land access.** Most urban farmers do not own the land they work on, establishing their plots on unused government or private land in their neighborhoods. Without tenure, these farmers risk being evicted without notice, collapsing their businesses. Creating public community gardens where individuals can build plots or creating programs through which individuals can purchase unused plots at fair prices could ensure farmers continued access to land.

**Using urban waste streams safely.** Using urban waste streams may be an ingenious form of recycling, but it also exposes people to potential health hazards. Providing technologies and training that reduce exposure or contamination can mitigate these risks. In Tafila, Jordan, researchers from the International Development Research Centre helped residents install barrels to isolate "gray water" (water that has been used for washing) so it can be reused safely to irrigate crops. Creating municipal compost systems or helping separate natural waste from other garbage could also reduce exposure to contaminants by keeping people out of disposal areas.

**Providing support.** Urban farmers do not always have the same institutional and community support as their rural counterparts. And urban agriculture often requires the use of unfamiliar or non-traditional techniques. Creating extension services that are unique to urban farmers could greatly enhance their capacity and provide the support they need to build financially sustainable businesses.