A 2020 Vision for Food, Agriculture, and the Environment
2020 VISION

ACHIEVING URBAN FOOD AND NUTRITION SECURITY IN THE DEVELOPING WORLD

THE HIDDEN SIGNIFICANCE OF URBAN AGRICULTURE

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In the next 20 years, urbanization will intensify in Latin America and the Caribbean, but Africa and Asia will witness the most explosive urban growth. Countries that are urbanizing the most rapidly are also among the least well-prepared to satisfy their food needs, and many already depend precariously on food aid and imports.

Urban agriculture—agriculture located within or on the fringe of a town or city—may be one way to bolster city food supplies while also increasing the incomes of the poor. Urban agriculture uses resources, products, and services found in and around the urban area and, in turn, often supplies resources, products, and services to that area. Urban agricultural systems include horticulture, floriculture, forestry, aquaculture, and livestock production.

MAGNITUDE OF URBAN AGRICULTURE

The United Nations Development Programme estimates that 800 million people are engaged in urban agriculture worldwide, with the majority in Asian cities. Of these, 200 million are considered to be market producers, employing 150 million people full time. Urban agriculture is thus an important supply source in developing-country urban food systems, a critical food-security valve for poor urban households. It affords a cheap, simple, and flexible tool for productively using open urban spaces, treating and recovering urban solid and liquid wastes, generating employment and income, adding value to products, managing freshwater resources more sparingly, and resolving otherwise incompatible urban land use issues. Urban agriculture's nature and magnitude vary, of course, depending on agroecological conditions; national, regional, and local policies; market conditions; and household characteristics, but it has become an important part of the urban scene.

Urban agriculture complements, rather than supplants, rural supplies and imports of food and will continue to do so. Cities will continue to depend largely on rural agriculture for bulkier, less perishable foodstuffs. But urban agriculture can provide significant amounts of food at small scales and for specific items. It can generate goods valued at tens of millions of dollars in any given major city. By growing their own food, cities lower their food deficits and obtain an important source of fruits and vegetables and livestock products, including dairy. Urban agriculture provides an estimated 15 percent of all food consumed in urban areas and is likely to double that share in the next couple of decades. Cities with more advanced urban agriculture sectors, particularly in Asia, have become largely self-sufficient in higher-valued, nutritious perishables. Some cities even export surpluses abroad.

Urban agriculture is also integral to city life, a vibrant part of urban economic and ecological systems. Urban farmers use urban land, public services, inputs, and even urban wastes in production. They then sell to local markets and often reinvest profits into goods produced or sold at city outlets.

Urban agriculture can be an important supplement to household income. In Cairo, the rearing of small livestock, practiced by over a quarter of households, provides more than 60 percent of household income. In Dar es Salaam urban agriculture is the second largest employer. High-valued specialty foods (for example, mushrooms) and nonfood crops (such as ornamental flowers) that require little space for production are especially good for providing needed cash.

Still, the great majority of urban farmers are poor and grow food mainly for their own subsistence, with little support or protection, on small plots that they do not own. These households can secure food from urban agriculture that they could not afford otherwise. Studies in Harare, Kampala, and Nairobi found that urban agriculture can improve nutritional status of household members, as measured by caloric and protein intake, meal quality, or children's growth rates.

Many surveys indicate that women predominate in urban agriculture, which conveniently enables women to earn income, improve household diets, perform household chores, and exert greater control over household resources, budgets, and decisionmaking.

RISKS AND CONSTRAINTS

The poor can be constrained from doing well with urban farming for many reasons, including lack of access to land, credit, water, and other inputs or legal obstacles arising from concerns about public health. Urban farmers often use public spaces, and if they lack title to the land they use, they cannot be assured they will actually reap the benefits of their investment. Without title, the majority of low-income urban producers cannot get formal loans that require assets as a guarantee nor can they get support from national farmers' unions, whose members' activities must be legally sanctioned. Women may be constrained by extension or credit services that disregard the knowledge women farmers have of crops, input combinations, and cultivation methods.

Aridity, unreliable supplies of piped water, and violent rainfalls can all critically constrain many production systems.

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If improperly managed, urban agriculture can even exacerbate environmental degradation, including soil erosion, loss of vegetation, siltation, and depletion of water resources.

Public health concerns stem from misuse or mishandling of agrochemicals; the application of untreated or improperly treated wastes to food crops; the exposure of crops to air, water, or land pollution, including possible contamination from heavy metals; and unsafe disposal of vegetable and animal wastes. Some threats, such as those from agrochemicals, are less prevalent than commonly believed because the poor usually cannot afford inorganic inputs. Consequently they grow crops or raise livestock organically. However, the poor often have no option other than to grow their crops in hazardous conditions, and threats from authorities may only deter them from investing in safer production methods.

POLICY AND PRACTICE

To improve urban agriculture and make it more sustainable, farmers must use better practices and governments must promote or better manage it through more informed policies. Nongovernmental organizations (NGOs) can support these efforts.

Legitimizing urban agriculture can help its low-income practitioners gain access to land, needed services, and credit. Policymakers can legitimize and promote urban agriculture through public appeals, as in Uganda. Governments can provide land for urban agriculture in city master plans, support greenbelt projects, and set up a network of input and service centers. They can engage directly in urban agricultural production by leasing out public land; assigning undeveloped, public land to farmer organizations; partnering with producers; or becoming producers themselves. Urban laws and regulations can be revised to be compatible with people's survival options, as in Kampala, where bylaws now allow for certain kinds of farm production in certain zones. Governments can also tolerate urban agriculture as interim land use in public housing schemes or incorporate it as a way to productively manage open urban spaces. Some development banks in South Africa and Tanzania have also provided credit by supporting revolving funds for cooperatives of urban farmers. Farmers' organizations can also help to legitimize the sector and organize access to credit, inputs, and markets.

There is enormous potential for reducing risks to public health by educating and empowering urban producers, as opposed to ignoring or harassing them. Farmers can reduce environmental risks and gain financially by making appropriate choices about what crops to grow. For example, increasing the use of short-cycle crops boosts productivity and decreases the use of potentially contaminated water.

Because many safe practices are knowledge-based, they are also affordable and easily adopted by farmers. Producers can be taught to avoid the use of polluted organic or chemical fertilizers on specific crops or to draw water from wells instead of rivers. Urban farmers can have mutually beneficial contracts with municipal waste-disposal services, and nonfood urban agriculture can be used to rehabilitate contaminated water bodies and soils, generating income in the process. NGOs can help determine the scale of composting that would be both cost-effective and environmentally suitable. Cities can treat and recirculate wastewater. When cities introduce treatment of water for irrigation, they should also devise creative cost-recovery mechanisms (for example, bartering agreements) instead of penalizing wastewater-using farmers.

Challenges to urban agriculture remain to be addressed from the community up to the national level. Governments must apply the wealth of local experiences to creating institutional structures for implementing urban agriculture policies. Overall, experience shows that prohibition of urban agriculture has been ineffective. Governments now should move beyond accommodation and into issue resolution: multiple-stakeholder governance so far seems to be the best approach to creating a sustainable urban agriculture that is friendly to small farmers. NGOs can help create and mediate among the various organizations.

Experience also has shown that urban agriculture is most viable where it is mainstreamed into robust strategies for land use, poverty alleviation, economic development, and sound environmental management. Outside Asia, few national food policies seek synergies between rural and urban production or guide integrated urban agricultural programs. Land-use and regulatory systems must be designed and enforced for fairer access to land, water, and markets. Agricultural extension must be adapted to the needs of urban producers. Agricultural research stations and urban planning departments must collaborate. Model health and land-use codes need to be developed. Regional and global networks are developing, but national and local networks must also be created and supported. Public policy should also acknowledge women's knowledge, constraints, and opportunities and act upon them to enhance women's citizenship.

Governments throughout the developing world must recognize the place of urban agriculture in the city's development and in securing food and nutrition security of its residents, a place it has long held without recognition and, moreover, a place that is now expanding. ■

For further reading see Luc Mougeot, "Urban Agriculture: Definition, Presence, Potentials and Risks," in *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda,* ed. Nico Bakker et al. (Feldafing, Germany: German Foundation for International Development [DSE], 2000); and United Nations Development Programme, *Urban Agriculture: Food, Jobs, and Sustainable Cities* (New York: UNDP, 1996).

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