Urban Agriculture in Havana, Cuba

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Background

For the past two decades, urban agriculture has been increasing throughout the world, in both poor and wealthy nations. Millions of urban residents in Africa, Asia, Latin America, and increasingly in North America, are growing crops and raising livestock in yards, on rooftops and balconies, along roadsides, and on vacant urban land. Although urban agriculture is a significant activity throughout much of the world, until recently there has been strong government perception in many countries that agriculture is unsuitable in urban areas. Many city governments are concerned about competition for land and water and incompatible land uses and try to discourage urban food production in the belief that, in addition to competing with more valuable land uses, it contributes to public health problems; this is especially the case vis-à-vis raising domestic animals. In stark contrast, the Cuban government has actively supported urban food production, especially in its capital city, Havana.

Cuba is the only country in the world that has developed an extensive state-supported infrastructure to support urban food production and urban growers. Functionally, this infrastructure emerged in response to acute food shortages in the early 1990s; ideologically it grew out of the Cuban governments view that access to nutritious food is a basic human right.

Following the Cuban Revolution in 1959, the new Cuban government prioritized eliminating hunger and poverty through an elaborate national food distribution system. This system functioned well to distribute needed food goods to the Cuban population but, it was highly dependent upon food imports; 57% of total foods consumed in Cuba were imported from the Soviet Bloc.

With the demise of the Soviet Bloc in 1989 all food imports were lost, resulting in the Cuban population experiencing immediate food shortages. Cuba also lost critical agricultural imports upon which its national food production system had become dependent -- -- fertilizers, pesticides, tractors and spare parts and petroleum to provide fuel energy. Reductions in access to petroleum brought the food distribution system to a halt; severe fuel shortages meant that food could not be refrigerated or transported by trucks from the peri-urban and rural areas where food was produced to the urban areas where the majority of the population resided. The U.S. Congress made the situation more difficult with the passage of the Toricelli Bill in 1992. Toricelli banned trade between Cuba and foreign subsidiaries of U.S. companies by the U.S. government threatening to confiscate ships that touched port in both Cuba and the United States within six months. Since most of this trade had been in food stuff; after Toricelli food shortages worsened considerably.

By the end of 1992, food shortages had reached crisis proportions throughout Cuba, including in the capital city of Havana, home to 2.2 million Cubans and the largest city in the Caribbean. Like many large cities, Havana was a food consumer city, completely dependent upon food imports brought in from the Cuban countryside and abroad. Havana had no food production sector or infrastructure, almost no land dedicated to the production of food. Worsening food shortages motivated Havaneros to spontaneously began to plant food crops in the yards, patios, balconies, rooftops and vacant land sites near their homes. In some cases, neighbors got together to plants crops -- beans, tomatoes, bananas, lettuce, okra, eggplant and taro. If they had the space, many began to raise small animals --chickens, rabbits, even pigs. Within two years there were gardens and farms in almost every Havana neighborhood. By 1994 hundreds of Havana residents were involved in food production. The majority of these urban growers had little or no access to much need agricultural inputs -- seeds, tools, pest...
controls, soil amendments. Nor did they have knowledge about the small-scale, agro-ecological techniques that urban gardening requires.

**Building a state-supported infrastructure to support urban agriculture**

The Cuban Ministry of Agriculture responded to people's need for information and agricultural inputs by creating an Urban Agriculture Department in Havana. The Department's goal was to put all of the city's open land into cultivation and provide a wide range of extension services and resources such as agricultural specialists, short courses, seed banks, biological controls, compost, and tools. The Department secured land use rights for all urban growers by adapting city laws to gain legal rights to food production on unused land. Hundreds of vacant lots, public and private, were officially sanctioned as gardens and farms. In some cases land ownership titles have been accorded but, in most instances land has been, and continues to be, handed over in usufruct, a planning concept which grants free and indefinite right to use public land for gardening.

The Department also set up a network of extension agents organized to respond to the varied needs of urban growers and assist them in all aspects of farming. The majority of extension workers are women who live in the neighborhoods in which they work; they know the residents in the neighborhoods they work in, keep track of ongoing needs and concerns, and continually encourage people to consider using available land for food production. Extension agents teach urban growers about small-scale agriculture techniques suited to urban food production and promote sustainable methods and practices -- biofertilizers, composting and green manure for increasing organic matter in soil, companion planting, biological controls and permaculture methods. Currently, there are 68 extension agents working in small teams of 2-7 in thirteen of Havana’s fifteen urban districts.

The Department also set up Seed Houses (Tiendas del Agricultor), 12 in Havana alone, which sell garden inputs, seeds, ornamental and medicinal plants, tree samplings (mostly fruit-bearing) tools, books, biological control products, biofertilizers, biological pest and disease controls, packaged compost, worm humus, and other needed inputs. The Department also works with Cuba’s agricultural research sector to quickly develop a new emphasis on providing information and resources for small-scale, sustainable urban agriculture. Two hundred and twenty-two small scale centers now produce biological control products to support sustainable organic agriculture throughout the nation. These centers harness microorganisms that perform useful functions in natural ecosystems and reproduce them in forms that can be used as biopesticides; other laboratories produce a variety of organic biofertilizers (see Table I).

This state-supported infrastructure for urban agriculture has allowed thousands of Cubans to become involved in food production in the nation’s capital. Currently, about 30% of Havana’s available land is under cultivation and there are more than 30,000 people growing food on more than 8,000 farms and gardens in Havana alone. The size and structure of these urban farms and gardens varies considerably. There are small backyard and individual plot gardens cultivated privately by urban residents (huertos populares). There are larger gardens based in raised container beds by individuals and state institutions (organoponicos). There are work place gardens that supply the cafeterias of their own workplace or institution (autoconsumos). There small family-run farms (campesinos) and there are farms owned and operated by the State with varying degrees of profit sharing with workers (empresas estatales).

In 1997, urban farms and gardens in Havana provided 30,000 tons of vegetables, tubers and fruit, 3,650 tons of meat, 7.5 million eggs, and 3.6 tons of medicinal plant materials (see Table II). Havaneros also began to grow rice. This small-scale rice production was completely unprecedented and unexpected because historically rice production in Cuba had been conducted on large farms using industrial methods. Nationwide, small-scale urban rice production is now producing as much rice as large-scale state owned farms in rural and peri-urban areas.

Within Cuba, many people raised questions about whether the urban population’s commitment to urban agriculture would outlast the food shortage crisis. In actuality, food shortages have decreased considerably since 1995 yet, every year since then, more Cubans have become involved in urban agriculture. Agricultural techniques are constantly improving. Yields and production levels have dramatically increased. Cubans are eating more fresh fruits and vegetables. There has been a revival of interest in, and use of, herbal medicine supported by the Cuban Ministry of Public Health. One of Cuba’s burgeoning economic sectors is plant-based medicine.

**Conclusion**
The growth of urban agriculture is largely due to the Cuban government’s commitment to making use of unused urban and peri-urban land and resources available to Cubans interested in farming. The issuing of land grants of vacant space in the city resulted in the conversion of hundreds of vacant lots into food producing plots. Although there is now intense competition for land uses in Havana, new planning laws place the highest land use priority on food production. In addition to land grants, the Cuban government created an infrastructure for farmers markets and direct sales from farmers to consumers and a series of incentives for urbanites to grow/raise food. Unlike anywhere else in the world, in Cuba, deregulation of prices, combined with high demand for fresh produce, has allowed urban farmers to earn more than many of Havana’s professionals.

Outside of Cuba, people are concerned about the degree to which Cuba will be able to maintain its commitment to urban agriculture and sustainable methods as the country increasingly enters the global economy and faces pressures to restructure its economic and political system. Certainly there are signs of competing urban land uses such as residential housing and the tourist industry. As the economy opens, multinational food corporations will try to flood the Cuban market with cheap imported food products that could undermine local food production.

Understanding these pressures, the Cuban government has developed land use policies that are designed to ensure that urban food production will continue. For example, any new constructions that would displace an existing garden must finance the relocation of that garden. This includes not only finding a new location but also constructing new garden beds, fences, bringing in compost and tree samplings, etc. To encourage people to become involved in urban food production the Cuban government has developed strategies that allow urban growers to earn a very good income based on direct consumer sales. The Urban Agriculture Department is developing policies and strategies to ensure sufficient access to water for irrigation. The government is supporting a network of seedling nurseries that grow vegetable starts for urban growers. There is ongoing public education about urban food production using television, radio and print media.

Although urban agriculture in Cuba came about as a response to an acute food shortage, the benefits have been far reaching. These advances are directly due to the Cuban government’s commitment to food security, which, in Cuba, has come to mean not only providing people with access to food but, providing them with healthy food, produced without chemical inputs harmful to human and environmental health. We hope this case study encourages other city governments to develop strategies and policies that contribute to an urban agriculture infrastructure that promotes small-scale sustainable farming methods and inputs, allows urban growers to thrive, increases local food security, and promotes ecological sustainability.