



During the crises years of the early 1990s when due to the deconstruction of the eastern European bloc, Cuba lost its main trading partners and at the same time the US intensified its economic blockade against Cuba, the black market thrived and food prices skyrocketed. Many food items got “sidetracked” from state distribution chains feeding the black market and causing scarcity in the ration system. Fresh fruits and vegetables, even when produced in ample quantities often rotted in the fields or at warehouses because the transportation system was also in crisis.

## Urban Agriculture in

# Food production in the community by the community and for the community Havana (Cuba)

Today food is much more available, prices have come down, and quality is up. Per capita figures for fresh fruits and vegetables are recovering. Much of this turn around has been due to a mass movement within all levels of Cuban society to produce and market food, flowers and medicines “in the community, by the community, and for the community” (Fuster, 1999).

Such crises as Cuba experienced in the 1990s are a quiet and everyday crisis around the globe. For the hungry, whether they are in underdeveloped or overdeveloped countries, Cuba is demonstrating to the world that with an appropriate set of policies, resources, and technological innovation hunger and food insecurity need not be the norm for so many families.

### THE ROOTS OF THE URBAN AGRICULTURE MOVEMENT

All over the island, agriculture changed in response to the new situation. Without fuel and parts for the tractors or agrochemicals, Cubans began to use sustainable technologies. The urban agriculture movement was born out of this crisis. Although Cuba is high-

### The urban agriculture movement was born out of this crisis

ly urbanized, urban agriculture was virtually nonexistent prior to the 1990’s. When the crisis came, the urban areas were the hardest hit because it was difficult to transport produce into the cities due to the fuel shortages. As a result people in many communities began to quietly take over empty lots and to farm. Others requested local agencies to let them farm on their open space. Many of the first gardens were planted in side lots, on patios, and on rooftops by urban families who were trying to feed themselves when the store shelves were bare.

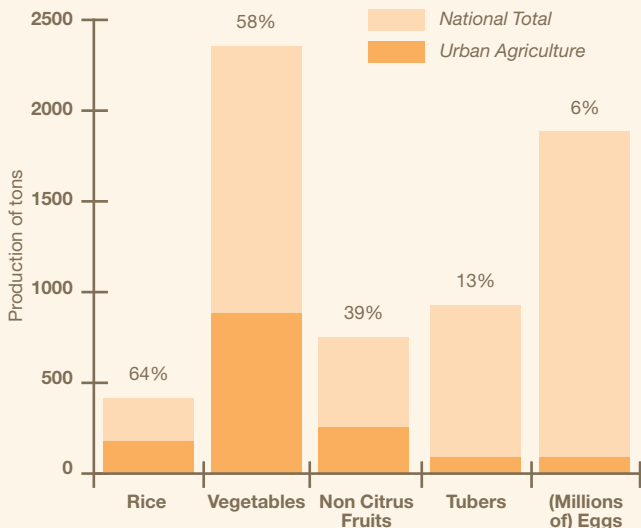


Figure 1 Urban Agriculture as a Percentage of Total Production (MINAGRI, 2000; Cuba News 2000)

Martin Bourque and  
Kristina Cañizares  
Food First/Institute for Food  
and Development Policy  
Oakland, USA

**Table 1: Extent of Urban Farming in the City of Havana 1997**  
(after Companioni et al. 1998).

Form of Production	Total Number of Sites	Total Area (ha.)
Intensive Gardens	92 gardens	17.00
Organopónicos	96 gardens	23.80
Hydroponics & Zeoponics	3 locations	111
Suburban Farms	2,138 private farms 285 state farms	7,718
Popular Gardens	5,000 gardens 26,604 gardeners	1,854
Business and Factory Gardens	384 gardens	5,368
Household Gardens	Unknown	Unknown
<b>Total</b>	<b>7,998 gardens</b>	<b>15,092 ha</b>

Santa Fe, a small beach community on the western edge of Havana, grew to be one of the leading farming neighborhoods in Havana. By 1995, there were 1915 small farms and gardens with 400 gardeners working on them.

As policy makers watched this movement they began to realize its potential. After many visits and interviews in Santa Fe and other successful communities, Urban Agriculture was declared a national priority and was supported by the highest authorities in the country (Gonzalez, 2000). The Ministry of Agriculture created a National Urban Agriculture Program through which significant resources were channeled to support food production in cities and small towns (MINAGRI, 1999)

### THE GROWTH OF URBAN AGRICULTURE

The principal challenges for urban farmers and gardeners at that time were *access to land* and a *lack of experience*. In 1993, the Ministry restructured urban land use rights to make it easy for locals to apply for land. Any unused land could be given to a gardener in permanent usufruct ownership- it would remain under his or her control as long as it was under cultivation. Havana blossomed with gardens.

Most urbanites people had little experience with agriculture, and even those with farming backgrounds had little knowledge of the small-scale, organic techniques that were necessary for urban cultivation. The Department of Urban Agriculture coordinated a comprehensive

network of extension agents based on Santa Fe and other experiences to assist the gardeners, provide information about the latest technology, and help to distribute seeds and tools. Many independent urban farmers have now formed cooperatives for credit and service (CCS) and new collective farms are being created

*Compañeros,*  
*For some time I have been insisting on the importance of developing our urban agriculture. I am convinced that these are the first products that we will be self sufficient in and that this will represent an important factor in the gradual solution to the problems of feeding the population.*

*-Raul Castro, Minister of the Revolutionary Armed Forces, 1998*

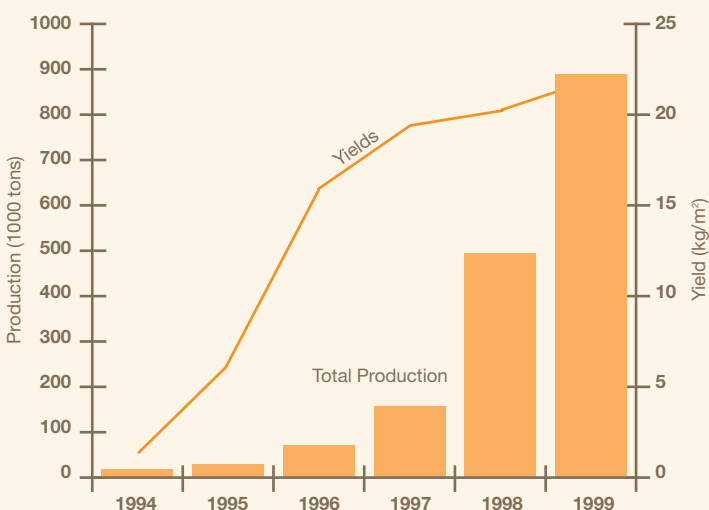
under the legal umbrella of the Basic Units of Cooperative Production (UBPC) (Companioni et al. 1998).

The Cuban government wanted to make it easier for farmers to distribute their produce to the population. Previously all food that was bought and sold either went through government stores or was traded on the black market. To prevent this practice and to lower food prices, the government allowed food to be sold at farmer's markets and on-site stands throughout the city (Gonzalez, 2000). Because the food is sold where it is grown, there are no transportation or storage costs, and the food is always fresh. Some gardens have hired neighbours to sell produce on bicycle carts. Many gardens also donate some food to local community centers, schools, elder cares facilities, hospitals, and the like (Murphy, 1999).

The government programmes are successful because they are not static; they change in response to the needs of the producers and consumers. For instance, as the demand for garden inputs grew, the Ministry found that its small stores, or seed houses, would be more efficient if less centralized. Therefore each seed house, which supplies all the necessary garden inputs, is highly autonomous. The Ministry delivers inventory, but does not set the sale prices. This type of negotiated cooperation has provided the flexibility necessary for unprecedented growth and innovation.

### A DIVERSITY OF TYPES OF FARMS AND GARDENS

Urban agriculture in Havana takes many forms; gardeners use different methods depending on the size, location, and quality of the lot. The existing forms can be divided up by methods used and by social organization. The different types of methods are intensive gardens and patio plots, *organoponicos* and small diversified farms. In the densely populated urban areas where gardens are small (under two hectares), Cubans use either intensive



**Figure 2: Total Production and Yields of Organoponicos 1994 to 1999.**  
(After Companioni et al., 2000)

gardening or the *organopónico* methods of cultivation. The intensive garden is used where the existing soil is healthy and drainage is adequate, and seeds and seedlings can be planted directly into the existing soil. Raised beds may be created with supports around them to protect against heavy rains and to more efficiently use the organic fertilizer.

In areas where the soil is poor, rocky, compacted, contaminated, or non-existent, especially where drainage is blocked, or on paved lots the *organopónico* method uses raised beds with “imported” soil and compost. The beds are usually constructed out of any handy material, including old roofing tiles and rocks or broken cement blocks. The soil is brought in from the area and mixed with equal amounts of organic material to fill the beds. Both of these systems are extremely intensive. They never try to have the beds unplanted more than 48 hours, and they are all use very high application rates of compost and other organic soil amendments (González, 2000; MINAGRI, 1999; Murphy, 1999).

In the outskirts of the city where more land is available, are the suburban farms exceeding two hectares in size. Because of their larger size, the suburban farms are able to integrate more livestock, fruit and forestry trees in with the horticultural production found in the smaller gardens. These farms are also highly diverse and may produce crops with longer crop cycles that a small farm would see as an inefficient use of limited space. Many of the starchy tubers and grains are produced on these farms.

There are many different ways that urban farms are organized and two main types of land tenure. The farmers who have traditional private parcels are in both urban and suburban areas are called *Parceleros* and are typically organized into credit and service cooperatives (CCSs). Since 1993, when the government began giving out land to individuals in free and permanent usufruct ownership, a new category of farmer was created: The *Usufructuario*. They are increasingly being incorporated into the CCSs. When several farmers come together and form a cooperative and ask for land and loans as a group, they form a Basic Unit of Cooperative Production (UBPC). The state gives them a piece of land (larger than an individual



could get) and provides the infrastructure such as fencing, sales kiosk, tool shed, irrigation system, and startup production loans, which the cooperative will pay off over time. The rates are low and the land is free so most are able to pay off their loans before the term is up.

Many state run enterprises have been experimenting with a new arrangement where they break up the large state owned lands surrounding the city and give small plots (up to 20 hectares) to new farmers. They are like *Usufructuarios* in many senses except that they must continue to produce the crops that that enterprise traditionally produced, and sell it exclusively to that enterprise. The contracts are based on production quotas, and the prices are fixed before planting. Anything the farmer produces above and beyond the quota either gets an increased price or can be sold directly to consumers at higher prices.

As a result of the policy, resources, land and market reforms, and dedication of government and community members, the urban agriculture movement has exploded. Figures for number of gardens, area farmed, total production, yield and percentage of total food production demonstrate these trends.

#### REAPING THE BENEFITS OF URBAN AGRICULTURE

The urban agriculture program has had a fantastic impact on nutrition and food security. Besides vegetables, the urban

agriculture programme also produces herbs, medicinal plants, rice, fruits, cooking oils, honey, pigs, chickens, rabbits, and ornamental plants. Specific programs provide irrigation systems, worm composting, and recycling of household wastes. Urban agriculture has provided

### Urban agriculture activities in Havana takes many forms

urban dwellers with a way to grow their own food, and current production is rising so fast that some areas are already producing 30% of their caloric intake.

Another important impact of urban agriculture was that food prices went down due to the increasing production.

#### REFERENCES

- Castro, Raul. 1998. Comunicqué to the First Secretaries of the provincial committees of the Cuban Communist Party. September 4, 1998.
- Companioni Nelso, Ojeda, Egidio Páez, and Catherine Murphy. 2000. Urban Agriculture in Cuba: Structure and Fundamentals. In Transforming the Cuban Countryside: Advances in sustainable agriculture. Food First Books. Oakland. In Press.
- Companioni, Nelso, Elizabeth Peña, Adolfo Rodríguez, Yanet Ojeda, and Mirian Carrión. 1998. La Agricultura Urbana en Cuba: Su Estructura y Fundamentos Organicos. INIFAT. Havana.
- González, Mario. 2000. Institucionalización de la Agricultura Urbana en la Ciudad de La Habana. A paper presented to the Urban Development Program of the United Nations Development Program. Quito Ecuador, April 2000.
- MINAGRI. 1999. Lineamientos para los Subprogramas de la Agricultura Urbana para el Año 2000. Grupo Nacional de Agricultura Urbana. Havana.
- Murphy, Catherine. 1999. Cultivating Havana: Urban agriculture and food security in the years of crisis. Development Report no 12. Food First / Institute for Food and Development Policy. Oakland.