



Feeding the Sustainable City

Thanks to pioneering research initially led by IDRC, many Southern cities are now re-examining their attitude to urban agriculture. The challenge they face is how to control agricultural activity so that it can be integrated into the city environment for the benefit of the urban farmers and the rest of the city's population.

"Urban agriculture (UA) is associated with urban land squatting and is viewed as a socioeconomic problem, not a solution. Authorities are hesitant to be more proactive on UA because it is largely seen as resulting from a failure to address adequately rural development needs."
Mayor Fisho P. Mwale,
Lusaka, Zambia

RESEARCH THAT MATTERS

The Development Challenge: Can agriculture succeed in the urban environment?

The cities of the South are growing fast as people move from the countryside to seek a better future. So fast that the municipalities cannot keep up with the influx. There are too few jobs and limited facilities. Many of these new arrivals face poverty and malnutrition, often spending three-quarters of what little income is available to provide just one meal a day.

"Urban agriculture has several advantages.... It increases urban food security (produce from rural areas is expensive and less fresh) and creates sources of income. UA also reduces open space maintenance costs to local government."

Mayor Christopher Iga, Kampala, Uganda

In an effort to improve their situation, many of the urban poor use any available space to grow more food. From rooftops to window boxes, on

roadsides, riverbanks, and vacant lots, people will find places to grow a little food to feed their families. Some even manage to grow enough to sell the surplus, providing much needed income. For others, especially on the outskirts of the city, farming becomes their main occupation and may provide support for an entire family or group of families.

City administrators have traditionally opposed this uncontrolled activity. These urban farmers often take over public spaces or private lands, and disputes over the use of land can lead to violence. There may also be health hazards if the soil or water used is contaminated. Keeping livestock in the densely populated areas may create a variety of risks.



IDRC: B-L. Wilson

Thanks to pioneering research initially led by Canada's

Urban farming in Nairobi, Kenya.

International Development Research Centre (IDRC), many Southern cities are now re-examining their attitude to urban agriculture (UA). The challenge they face is how to control agricultural activity so that it can be integrated into the city environment for the benefit of the urban farmers and the rest of the city's population.

The Idea: What's old is new again

Farming in the city is not a new practice. There is ample evidence in the remains of ancient cities around the world to show that agriculture was once a normal part of city life. Cities were designed to incorporate the production of food, fodder, medicinal plants, and even building materials. If it worked then, why not now? Instead of trying to ban agriculture in the city, why not encourage it? Persuade the urban farmers to organize and become more efficient, help them find and share available space, provide support for food processing and marketing, create effective rules and regulations, and provide facilities

that will enable them to contribute to the city's sustainability and food security. It was an idea whose time had come — again.

The Research: Maximizing the potential of urban agriculture

IDRC was the first major international agency to support formal research in the field of urban agriculture more than 20 years ago. The approach has been to try and maximize the potential for UA to improve household food supply, incomes, and health by removing some of the constraints — such as outdated

Urban Agriculture experiences in Latin American and Caribbean cities ... reveal that it is possible to use local resources and technologies to help reduce the costs of urban economies and improve the standards and the quality of life of the population.

From The Quito Declaration, Ecuador, April 2000

practical solutions. They also helped create networks of cities to promote the sharing of ideas, technology, and results. And the Centre worked to bring UA research into the mainstream through collaboration with other donor organizations, as well as with academic institutions and nongovernmental organizations (NGOs).

On the Ground: Sowing the seeds of sustainable urban development

In the last two decades IDRC has disbursed some CA\$9 million on over 90 UA projects in more than 40 countries. Here are just a few examples:

- Representatives of 20 Latin American and Caribbean cities met in Quito, Ecuador, to discuss the potential of UA. All the city mayors signed the Quito Declaration in support of UA. More than 50 cities have now signed the declaration.

by-laws and restrictive regulations — and at the same time improve the management of waste, water, and land. To achieve this the researchers focused on both policy and technology, bringing researchers, politicians, and technocrats together with the producers to develop effective policies and

- The Sustainable Dar es Salaam Project in Tanzania's capital city (co-funded with the UN-HABITAT program) led to a new strategic urban development plan for the city, and policies for integrating UA into improved management of the city's environment.
- In Uganda, the Kampala Structure Plan was revised to include UA as a legitimate land use and an Urban Agriculture Unit was set up under the Kampala City Council administration.
- A research team, made up of staff and students from several Ghanaian universities, studied three cities in Ghana and determined urban waste composting really does offer a win-win situation for urban farmers and municipalities. It found that UA, combined with landscaping and other uses, could absorb as much as 20 % of the cities' organic waste.
- In several cities, in both Africa and Latin America, sites that were unsuitable for food production are now used to cultivate flowers instead. Sale of the flowers, often for export, provides the income families need to purchase food.
- In Port-au-Prince, Haiti, partnering with local and international NGOs, researchers set up demonstration gardens that incorporated organic waste. Some 1 100 people in 68 groups were trained to set up and operate gardens. The concept worked so well that in three years the project had expanded to 19 districts from the three originally planned.
- Near Amman, Jordan, researchers developed a wastewater recycling system that allows "greywater" from household uses to be reused in home gardens. Initial water savings were estimated to be at least 15 %, and the use of greywater in market gardens has increased household incomes by 10 %.



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Growing herbs for food and sale in Amman, Jordan.



IDRC: Louise Guénette

Seniors garden in downtown Quito, Ecuador.

RESEARCH THAT MATTERS

The Impact: Into the mainstream

What was once seen as a novel area for research has now become mainstream, with projects funded by major United Nations, international, and national agencies, as well as NGOs. Following the Quito example, city networks have formed in both East and West Africa to share experiences and training opportunities. By-laws and regulations are being rewritten to accommodate and encourage UA and to ensure the equitable distribution of land. Aerial surveys have enabled cities to create maps showing where space is available, and which areas are best suited for agriculture, with access

Even in the most densely developed areas of the city there is still unused potential for UA. Mushrooms can be grown in trays indoors, fish can be raised in tanks, trays of silkworms can provide income, and medicinal herbs can be cultivated in containers and processed in the home.

to organic waste for composting and safe water supply. Schools, businesses, and public buildings are creating garden plots for students and workers.

Many universities in the South now include UA in their curriculum, creating a cadre of professionals schooled in UA techniques. And UA was on the agenda at the third World Urban Forum in Vancouver, Canada, in 2006.

Future Challenges: Growing tomorrow's green cities

Regional city networks must continue to grow as more and more cities realize the benefits that UA can bring. As new enabling legislation and comprehensive city plans are introduced, it is important to ensure that training is provided for city staff who must implement the new rules. More needs to be done to increase public

Bountiful crops from backyard gardens in Brazil.



IDRC: Louise Guénette

awareness of the positive contributions made by UA. There is also a need for more education for producers on key issues such as safe use of pesticides and the dangers of contaminated soil and water. This can best be achieved working through formal producers' organizations. Such organizations can also help to ensure fair distribution of land and resources, and security of tenure.

Canada's International Development Research Centre (IDRC) is one of the world's leading institutions in the generation and application of new knowledge to meet the challenges of international development. For more than 35 years, IDRC has worked in close collaboration with researchers from the developing world in their search for the means to build healthier, more equitable, and more prosperous societies.

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