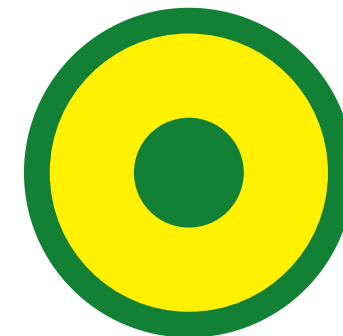


URBAN



PERI-URBAN



RURAL-URBAN

2

2.0 EDIBLE LANDSCAPES WORLDWIDE

Background

In Sub-Saharan Africa, for example, farmers are well represented amongst the urban population. Many urban and landless farmers either do not farm or engage in marginal and subsistence-farming practices. As the following case studies will show, urban food production is sometimes sufficient to cover all urban needs in certain food categories, including eggs and poultry. Government authorities, while no longer openly hostile to urban agriculture in most places, remain at best indifferent to the activity despite its value for food security.

Growing food and animal husbandry has sometimes been discouraged or even banned from the city, deemed unsanitary or as impeding urban economic development. Despite this challenge, people naturally cultivate in times of crisis, or for pleasure. The areas farmed are sometimes very small, or farmers make innovative uses of the under-utilized lands, such as the side of railways, access streets, abandoned lots, balconies, etc. For the purpose of our study, informal practices are as important as legal ones.

The situation is quite different in a place like Havana, Cuba, where the government has successfully initiated and lent support to an extensive network of urban farms and gardens. This was achieved as a natural call for food solidarity and urban production in the face of a national economic and food crisis.

**Cities Feeding People. IDRC
Source: Egziabher, 1994.**

Source: City Farmer, 1999.



**Raising livestock in cities.
Source: MCHG, 2004.**

2.1 AFRICA

Urban agriculture varies according to region. In cities of Sub-Saharan Africa, food production can be observed in three basic forms: intra-urban agriculture, household agriculture and peri-urban agriculture.

Intra-Urban

Intra-urban agriculture is practiced on illegally occupied or squatted land. The illegal nature and insecurity associated with the squatted land determines the nature of produce, which is grown in short cycles rather than perennial crops.

Household

Household agriculture as the name suggests is practised in backyards, or the front yards of the household.

Peri-Urban

Peri-urban agriculture is most heterogeneous. By its basic nature it is a subtype of village agriculture which is generally transformed by the proximity to the city, or as result of urban sprawl reaching the rural fringe.



**Variety of UA in Kampala, Uganda
Source: MCHG, 2004.**

2.1.1 AFRICA

SUB-SAHARA

After WWII and Colonial Rule

- a) Urban administrators were generally opposed
- b) Demolition and destruction of urban farms
- c) No tax revenues and alternative land use for economic development were cited as reasons

After Economic Crisis

- a) Increasing acceptance of UA as important for food security
- b) Ignoring or overlooking the existence of the activity

Levels of Urban Participation

Burkina Faso

- a) 36% of population is engaged in horticulture and livestock breeding

Cameroon

- a) 35% are farmers

Gabon

- a) 80% are farmers

Nairobi and other cities, Kenya

- a) 67% are farmer of which 29% produce food
- b) 6 largest cities: 25% for own survival; 23% for sale
- c) female vendors: 30% grow their own

Kampala, Uganda

- a) 50% of urban land
- b) 20% produce consumed; 80% produce sold
- c) poultry and eggs: 70% sufficiency

Addis Ababa, Ethiopia

- a) Commercial Cooperatives (managed by men)
- b) Women tend the private gardens.
- c) 80% of produce is sold. Excess contributes 10-20% to home budget.

Objectives of Production

The growth of urban agriculture:

- a) Food security & income:
Primarily for consumption then for sale
- b) Economic crisis:
The growth of urban agriculture is largely a response to the present economic crisis
- c) Skills:
Recent immigrants from rural areas have farming skills
- d) Food quality:
Provision of essential nutrients

Government Attitude is Changing

- a) Recognition of importance of UA to food security
- b) Recurring nature of UA an important informal activity that cannot be eradicated or ignored
- c) Urban agriculture formally accepted as an urban activity compatible with formal urban development and planning efforts, e.g. UA legislation in Kampala

**Cities Feeding People. IDRC
Source: Egziabher, 1994.**

Lessons

While not generally supported by governments in Sub-Saharan Africa, urban agriculture plays a significant role in meeting the food and nutrition requirements of the poor people. It has assumed growing importance in the face of poverty, malnutrition, and financial crisis.

2.1.2 AFRICA

KAMPALA, UGANDA

Institutional breakdown, economic mismanagement and civil conflict which characterized the life of Uganda from the early 1970s until the mid-1980s were particularly felt by the residents of Kampala. A major response to the economic crisis at the household level was to diversify income-generating strategies beyond formal employment, trade or wage labor.

Among a variety of other activities, urban farming has been increasingly practised. Urban production of food for home consumption may buffer or mitigate the decline in household food security associated with both the crisis of the formal economy and the policies of stabilization and adjustment. Farming within the city of Kampala spans a continuum of motivations from a literal survival strategy, for many, to a large-scale, lucrative capital investment, for a few.

Urban Land Use

An estimated 56% of total land area in the city is dedicated to production. Use of open spaces, utility accesses, parks, public and private lands.

- a) Vast majority of urban farmers produce primarily for home consumption
- b) Small number of commercial farmers within the city, producing primarily for sale to the urban market

Household Participation

An estimated 35% of households in the city are involved in production.

- a) Sale of varying amounts of their produce depending on the need for cash, sources of income, and the intra-household distribution of income
- b) Production for own use

Analysis

Background

- a) Crisis and institutional breakdown
- b) Economic mismanagement
- c) Civil conflict
- d) Increased food price
- e) Cut subsidies to the poor

Motivation

- a) Food security
- b) Additional source of income
- c) Lucrative investment

People's Participation

- a) 35% of households
- b) 50% of urban land
- c) Poultry and eggs: 70% self-sufficient
- d) 20% consumed; 80% sold

Objective of Production

- a) Commercial Farming
- b) Subsistence Farming

Government

- a) Neutral until recently
- b) Change in legislation

**Cities Feeding People. IDRC
Source: Egziabher, 1994.**

Lessons

Given that the average size of an urban household engaged in farming in the city is considerably larger than the mean for the city as a whole, this implies that urban agriculture directly affects the livelihood or diet of approximately half of Kampala's residents, and indirectly affects an even greater proportion.

2.2.1 CARIBBEAN

HAVANA, CUBA

The break-up of the Soviet Bloc in 1989 plunged Cuba into the worst economic crisis of its history which caused a decline in food production, coupled with a drastic reduction in food imports. Cuba responded to the crisis with a national call to increase food production by restructuring agriculture. Urban agriculture has been a key part of this effort, and has significantly contributed to the easing of Cuba's food crisis.

By 1998, there were over 8,000 officially recognized production units employing over 30,000 urban farmers, with roughly 30 percent of Havana's available land under cultivation.

The Government's Role

Cuba now has one of the most successful urban agriculture programs in the world, which the government played a large part in facilitating:

- a) Access to unused urban and suburban land and resources available to aspiring urban farmers
- b) Issuance of land grants for vacant space. Planning laws place the highest land use priority on food production
- c) Opening of farmers' markets
- d) Legalization of direct sales
- e) Deregulation of prices
- f) Extensive support system

Household Participation

City farms and gardens are informally organized into five main categories:

- a) Popular gardens: Cultivated privately by urban residents in small parcels all over Havana.
- b) Intensive gardens: Gardens in raised container beds with a high ratio of compost to soil as a growing medium. Run by either a state institution or private individuals.
- c) Self-provisioning gardens: Gardens that belong to and produce for the workers. These usually supply the cafeterias of a particular workplace, an institution often on-site at hospitals, factories, and schools.
- d) Individual small farms: Some of these farmers have been farming in Havana for years, while others work newly available lands. The farms are largely in Havana's peri-urban greenbelt.
- e) State enterprises: See next page.

State Enterprises

Businesses owned and run by the state, many of which are now being run as a "New Type of Enterprise," with increasing decentralization, autonomy, and varying degrees of direct profit sharing with workers.

Analysis

Initiation

- a) Economic crisis
- b) Decline in food production and imports

Motivation

- a) Food security

Voluntary Participation

- a) 8000 production units, officially recognized
- b) 30,000 people
- c) 30% of available land in Havana

Forms of Gardens

- a) Popular gardens
- b) Intensive gardens
- c) Self-provisioning
- d) Individual small farms
- e) State enterprises

Government Roles

- a) Initiated effort through a national call to increase food production
- b) Extensive support system: Extension agents and horticultural groups
- c) Goal: To put 100% of arable land under cultivation

Source: RUAF, 2000.

Lessons

The growth of urban agriculture is largely due to the Cuban state's commitment to making unused urban and suburban land and resources available to aspiring urban farmers. Land grants of vacant space and zoning favoring food production have spurred the conversion of hundreds of vacant lots into food producing plots, and contributed to making this a secure activity. The opening of farmers' market and the legalization of direct sales from farmers to consumers dramatically increased production incentives for urbanites. Deregulation of prices combined with high demand for fresh produce in the cities has allowed urban farmers to earn two to three times as much as professionals. The government also encourages gardeners through an extensive support system including extension agents and horticulture groups that offer assistance and advice.

2.2.2 CARIBBEAN

PORT OF SPAIN, TRINIDAD

At present, the main features of the economy of Trinidad are polarized: heavy reliance on petroleum-based industries on one side and high unemployment rates on the other. Public policy has failed to bring about significant changes in this respect. High rates of unemployment and poverty have significant effects on urban areas where the severity of poverty can be mitigated by informal activities such as subsistence farming and petty commodity trading.

Market gardening in Trinidad is a relatively recent development in the country's history. They are farmers by profession and are mostly full time farmers. They tend to specialize in a few crops in order to meet local demand for food or they are involved in specialized agriculture like apiary or horticulture that requires skills and is profitable.

Subsistence Farming

An activity carried out by households of different economic means and motivations:

- a) Very low income people: an opportunity to access food
- b) Low income people and middle income people: cost savings
- c) High income people: a hobby for the sheer enjoyment of growing food and a desire to eat healthy produce

Informal Market Activities

These are connected to the formal sector in that they provide inexpensive products to formal sector employees and residents:

- a) Petty commodity traders are located more often than not in peri-urban, rather than urban areas
- b) Street vendors line the streets and sell cooked food, fruit candies, preserves, and fresh fruit and vegetables

Analysis

Initiation

- a) High rate of unemployment
- b) Poverty

Motivation

- a) Food security
- b) Saving
- c) Hobby and enjoyment
- d) Health foods

Voluntary Participation

- a) 50% of peri-urban residents
- b) 10-40% of urban residents
- c) 40% of squatters

Forms of Gardens

- a) Subsistence producer
- b) Petty commodity traders
- c) Market gardeners

Government

- a) Neutral

Access

- a) Illegal squatting
- b) Legal leasing from state
- c) Legal leasing from private owners

**Cities Feeding People. IDRC
Source: Egziabher, 1994.**

Lessons

The government's attitude towards urban agriculture in Trinidad can be said to be neutral. The practice is allowed to occur without imposing direct obstruction with the exception of livestock farming. Urban agriculture is not recognized as a land use, however. It is positively recognized and accepted on a household level.

Land tenure is a critical issue in Trinidad. A significant portion of agricultural land in the East-West corridor is either rental or has other tenure arrangements. It is difficult to know the extent to which lands are squatted upon, but it is significant.

2.3 NORTH AMERICA

In North America there has been a noted increase in the number of people living in the urban centers participating in urban agriculture, though the infrastructure and formal recognition vary starkly between cities. As a response to an increasingly urbanized existence, many engage in urban agriculture as a lifestyle choice. The reasons for practicing urban agriculture range from food security and income, to social interaction. Food security has been largely an issue in developing countries with increasing urbanization, breakdown of the formal economic structure and the collapse of the import-export structure. It is assumed that food security is not as great a problem for North American cities as for poorer nations, but the (lack of) access to affordable, quality foods is a growing cause of concern for many people. While the last decade has seen a boom in the economy, the success has not been equally shared, increasing the gap between rich and poor. For people with low income and the elderly, urban agriculture provides an important income subsidy. Moreover in developed nations, urban sprawl has destroyed many farms in the close vicinity of the city. Presently, the cost of transportation and packaging has a larger share in the cost of the foods being supplied over great distances. Concerns for freshness, health, ecology, natural resources and energy conservation have augmented people's desire to buy and produce locally.



Urban rooftop garden in New York City
Source: Clinton Community Garden, 2002.

2.3.1 NORTH AMERICA GREATER TORONTO AREA

The Greater Toronto Area comprises Metropolitan Toronto and the four surrounding regional districts. In the last 50 years the population of the area has increased from 1 to 4 million people and is projected to rise to 6 million by the year 2020. Four regional districts surround the core metropolitan area, which are growing faster than the former core that is now amalgamated into one municipality of 2.4 million people.

The Greater Toronto Area is experiencing extensive urban sprawl as most North American cities with high urbanization rates. This urban sprawl is threatening the preservation of agricultural land. A recent planning study revealed that if the current low-density development continues then it will consume about \$90 billion of capital over the coming 25 years. Instead, a compact development plan would result in the saving of \$35 billion dollars.

Source: City Farmer, 2002.



Vacant space revitalized as a city garden
Source: FoodShare, 2002.

Early Activism Behind Community Gardens

- a) FoodShare program was founded by the mayor in 1985 to function as emergency food services to collect and distribute food
- b) The Healthy City Office (HCO) and the Toronto Food Policy Council (FPC) formed in 1990
- c) The Community Gardens Action Group (CGAG) planned to set up community gardens in 1990
- d) 8 community gardens obtained grants for establishment in 1990
- e) FPC and HCO proposed an interdepartmental working group on community gardens
- f) FPC, HCO and CGAG formed a group called Grow T.O. Gather Community Gardens (GROW T.O.)
- g) Garden City Report produced by the interdepartmental group in December, 1993
- h) GROW T.O. folded in 1995
- i) Several new gardens were built and land was purchased for a showcase downtown community garden in a new park by the Department of Parks and Recreation, three FoodShare and the Green Community Initiative in 1996
- j) The Department of Parks and Recreation partnered with FoodShare to host a 12 person youth community gardening work crew in 1997
- k) FoodShare sponsored the Friends of Community Gardening, an informal advocacy group in 1997
- l) The Friends of Community Gardening planned a community garden conference in 1998

Forms of Urban Agriculture

Regional allotments gardens are administered by the municipality who site them as open space. The infrastructure is provided by the city.

Social housing and community gardens:

- a) Started with the support and initiation of FoodShare Metro Toronto
- b) Located in public and social housing areas, mainly on lands controlled by the Metro Toronto Housing Authority
- c) First Community Garden was created in 1986 on land of the social housing complex in Regent Park area in downtown Toronto. Since then the area has experienced significant accomplishments, including the creation of a rooftop garden on one building
- d) The most successful community gardens in the City are located in the low income areas
- e) Community gardening fits in extremely well with the Community Health Centre's (CHC's) community-based nutrition and self-help outreach activities. As a result the CHC is supporting the creation of several new community gardens in the Regent Park area

Other Types of Community Gardens

- a) Includes the various gardens sited in the schools, on rooftops, therapeutic and terrace gardens, etc.
- b) There has also been an increase in the number of neighbourhood community gardens due to high demand.

Source: City Farmer, 1998.

Community Garden Network

The network is sponsored by FoodShare and receives support from a number of other organizations like Evergreen, Greenest City, and the Toronto Food Policy Council.

Objectives

- a) Encourage a healthy, vibrant community gardening movement in the City of Toronto
- b) To link and support community gardeners. It plays a major role in the development of the community garden program in the city

Publication

- a) Weekly newsletter circulated giving information on gardening, environment and food security issues

Events

- a) Workshops on a variety of topics of interest to gardeners
- b) Special events such as:
Annual community garden tour in July
Seedy Saturday in March
Harvest celebration in September

Source: City Farmer, 1998.



Community gardening activity, Toronto
Source: City Farmer, 1998.

Number of community gardens in Toronto

Today Toronto boasts over 90 community gardens, plus the 20 municipal allotment gardens of approximately 2,500 plots. The total number of individual plots in Toronto is in excess of 3500.

Forms of Urban Agriculture	Sites	Plots
Regional Allotments	14	2079
Social Housing Community Gardens	20	1521
Other types (school, rooftop, demonstration, therapeutic, terrace, etc.)	35	
Total Amounts	69	3500

Source: City Farmer, 1998.

Conclusion

Urban agriculture in Toronto is in its early stages of development. The increasing demand for fresh organic food is initiating many new projects in the city leading to an increase in the number of community gardens, which today have increased from 69 gardens in 1997 to more than 90. Community gardens are more numerous in moderate-to-low income communities.



Variety of edible plants
Source: FoodShare, 2002.

2.3.2 NORTH AMERICA

VANCOUVER

Vancouver presently has a population of 1.75 million people. The region grew rapidly in the 1990s, with immigration from Asia and migration from the rest of Canada. The greater Vancouver regional district comprises the city of Vancouver, the city of Burnaby and 9 other municipalities. Regional planning was eliminated in British Columbia in 1983. The Greater Vancouver Regional District has only been able to suggest strategic planning on a voluntary basis. In many ways it is the power and predominance of the Agricultural Land Reserve in British Columbia that limits suburban sprawl to some extent. This provincial statute is a de-facto land-use regional planning measure.

History

The first community garden was started in 1985 by the Strathcona neighbourhood of downtown East Vancouver. A 3.5 acre inner-city abandoned landfill site was acquired. It was located in a predominantly low-income community.

After a long struggle with the city of Vancouver the community was able to protect this urban oasis from getting crushed under the pressures of urbanization.

The success of the Strathcona Community Garden inspired the Environmental Youth Alliance in the early 1990s to begin their garden nearby on Parks Board land. This first installation then led to the establishment of the 3.5 acre Cottonwood Community Garden.

These efforts by community activists to organize community gardens along with pressure from the City Farmer Organization and the newer Farm Folk/City Folk urban-rural solidarity movement helped to push the Vancouver Parks Board to adopt the first official community gardening policy document in the region in 1996.

Community gardens

Vancouver does not have a central city sponsored community garden program. However, there are many community gardens, such as the regional allotments at the Burnaby site.

The economic boom in the 1990s saw an increase in the popularity of community gardens, largely as a reaction to the rapid urbanization.

The need to think seriously about land-use decisions in the face of growth and construction has helped solidify the support for community gardening.

Number of Community Gardens

Vancouver has in all 36 community gardens spread over the entire greater Vancouver regional district comprising a total of 2000 plots. Most of the community gardens have a long waiting list.

Source: City Farmer, 1998.

Location of Community Gardens	No of sites
City of Vancouver	12
City of Burnaby	13
Other Municipalities	11
Total Amounts	36

2.3.3 NORTH AMERICA

NEW YORK CITY

New York and especially Kings County (Brooklyn) is an excellent example to study how a major city embraces, encloses, and finally eliminates the surrounding farms. Once known as the vegetable capital of America it now depends for its supply of fresh fruits and vegetables from as far as California or across the ocean.

This is due to the rapid urbanization and loss of rural and peri-urban farms to the city during the 18th and 19th centuries. The conversion of farmlands to residential lots is owing to development pressures that promise higher returns in the urban environment.

Disappearance of Farming

Historical events

Shift from extensive to intensive vegetable farming (early 19th century)

Leading vegetable producer of the country (late 19th century)

Market gardening was practiced

Reduction in the size of farms

Disappearance of productive farms to residential suburbs

Causes

Opening of the Erie Canal in 1825

Facilitated the cheap transport of grains from the Ohio valley

High yield attributed to the rich manure from the city

Increasing city population acted as potential market

Increasing Sub-urbanization

Land hoarding by speculative developers

Tax levied on the farmers made the activity unsustainable who sold them for profit

Development of freight placed the cities next to the distant farms

Reappearance in the Form of Urban Agriculture

Need & Motivation

Supply of quality produce of local crops during certain months of the year leading to less reliance on intercontinental agricultural sources

Access to fresh organic food
Leisure

Mental and physical health benefits
Income subsidy

Revitalization of local farms

Activities

Last two decades have seen immense activism in New York for the protection of green spaces.

Activist groups like Green Guerillas have moved to court for protection of and access to green spaces.

After three years of negotiation the Attorney General released a statement saying that 198 gardens would be preserved, 114 gardens would be subjected to a garden review, while 38 gardens were designated for immediate development. Today New York boasts of having numerous community garden programs which are initiated and supported by various organizations, such as Green Guerrilla; Green Thumb, etc.

The Green Guerillas form a vital source for the New York City network of 700+ grassroots community garden groups. Green Thumb is the nation's largest urban gardening program that aims at fostering civic participation and encourages neighborhood revitalization while preserving open spaces, having 650 members serving 20,000 people.

The establishment of the green market program has revolutionized New York City, which market the freshness, and nutritive value of food. This has enabled upstate family-sized farms to again prosper.

Source: Turner, 1998.

Conclusion

In the case of New York it took most of the 20th century to reverse economic and urban development policies that favoured the disappearance of peri-urban and rural lands to sprawl and speculation. However, urban growers and small-size family farms have literally regained some of the lost ground. In 1971, NY passed legislation giving farmers the right to decide the use of land and two years later it encouraged the development of these agricultural activities for food production by protecting the agricultural lands. Since 1976 greenmarkets have been selling locally produced food in open-air markets, and the right to grow on community plots in the city has been successfully gained through the courts.

2.3.4 NORTH AMERICA

MONTREAL

Introduction

The evolution of Urban Agriculture in Montreal is tightly linked to Montreal's history of built forms and the interactions with surrounding peri-urban and rural areas. Early urbanization and industrialization informed a building form and topography specific to Montreal, allowing for open private and public spaces intermingled with two and three storey duplex/triplexes, which allows for about 40% of the Montreal population ample space for private gardening. Additionally, about 25,000 people participate in government sponsored, peri-urban partnerships or collective forms of gardening giving rise to highly participatory forms of urban agriculture within neighborhoods. While government-sponsored community gardens grew rapidly in the mid 70s and 80s, other forms of urban agriculture are now growing at a faster pace. These contrasts have produced a variety of edible landscapes in Montreal.

Urban Agriculture Overview in Montreal

While government-sponsored community gardens grew rapidly in the 70s and 80s, other collective and peri-urban forms are now growing at a faster pace. Montreal community gardens still are a popular and inexpensive leisure activity, which provides an income-subsidy to some, and especially to recent immigrants and to the elderly. Also, in terms of the "number of urban sites," community gardens service a larger number of residents as compared with other services, with minimal maintenance and operational costs.

History

The community gardens in Montreal began as a populist phenomenon, and a garden was usually initiated by a small group of individuals, generally in a poor neighborhood. Ever since the creation of the first community garden in Centre Sud in 1974, the city of Montreal has supported the creation of these gardens, acting as a "facilitator." The first garden, constructed in a vacant lot left empty by a fire, is indicative of subsequent gardens created during the 1970s.

At the onset, the community gardens were managed by the Botanical Gardens while the City of Montreal helped securing the terrain and provided initial capital investments.

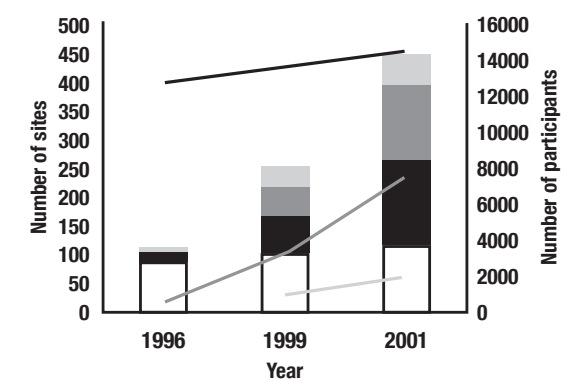
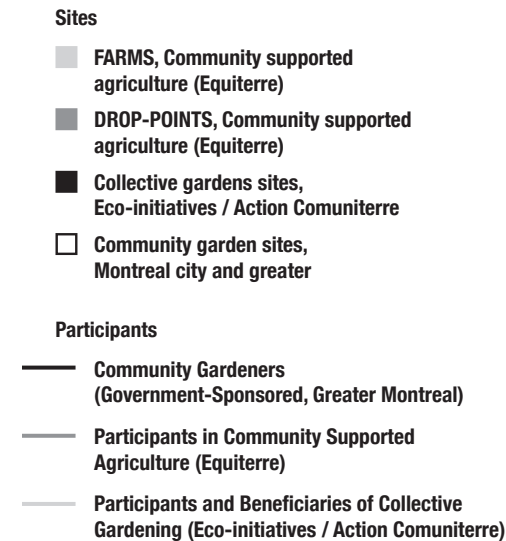


Table 2.3.4.1 Montreal Farming Network
Source: Project Team, 2001.

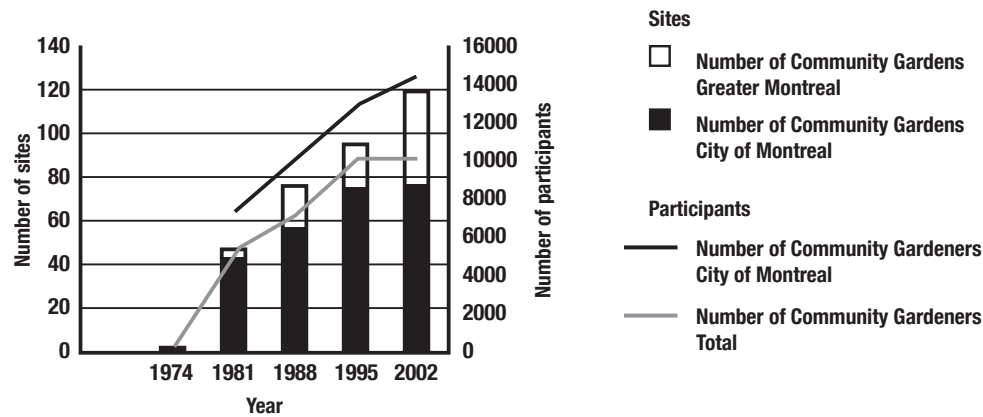


Table 2.3.4.2 Community Gardens in Montreal
Source: Project Team

First Wave (1974-1981) Energy Crisis and Rapid Growth

This period saw the rapid creation of numerous gardens with an average of 3 new gardens per year. Centre-Sud represented a less developed part of town with lower-income residents. Food security was cited as one of the primary reasons for garden creation, as well as neighborhood improvement in terms of giving a utilitarian function to this idle lot. By 1981, there were 43 community gardens.

Second Wave (1982-1996) Growing Concern for the Environment and Quality of Life

A second wave of community garden formation took place in the 1980s and 1990s bringing the total number up to 72 gardens in 1996, with an average of 2 new gardens per year.

Third Wave (1997-2002) Quality of Life and Stabilization

Since 1997, the total number of gardens has increased more slowly with only 4 new gardens added to the total in 6 years. However, it would be misleading to say that community gardens have become less of a priority: while some gardens have disappeared due to real estate development, the city has developed new gardens to replace those that have disappeared, which indicates that from a management and capital input point of view the city has maintained its involvement to at least satisfy current levels of activity. The city also shows a concern of not spurring a wave of public protest which would take place if any garden were to disappear permanently.

Source: City of Montreal, 1999.
Statistics Canada, 2001.
Project Team, 2002.

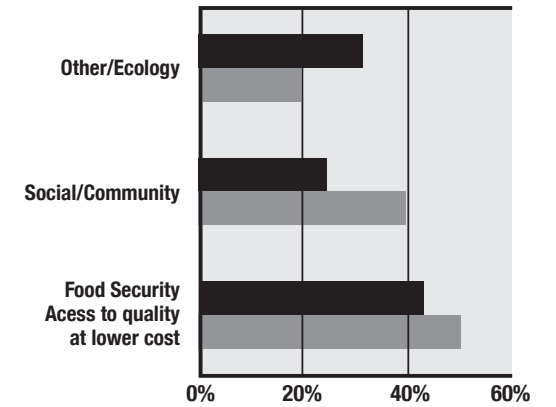


Table 2.3.4.3 Motivation
Source: Project Team

Motivation

- More than 50% show concern for growing food and food quality
- About 40% of gardeners cited leisure as their main motivation
- Approximately 20% cited other, ecological or quality of life motivations
- About 75% of gardeners come back every year

Age

It should be noted that community gardens cater to the older segments of the population:

- 55 years or more: representing at least 44% of gardeners in 5 out of the 9 boroughs
- 45 years or more: representing at least 63% of gardeners in 8 out of 9 boroughs
- The youngest area is the Plateau Mont-Royal/Centre-Sud with 52% of gardeners less than 45 years old

Start-Up Costs

Many of the sites are on institutional land. Montreal relocated 12 gardens (1986-89), at a capital cost of \$400,000. They estimate costs of \$20,000 for the establishment of a new garden site of 90 plots. There is official community gardening zoning for 13 garden sites. 22 gardens are situated in City parks.

From interview with Andre Pednault.
Source: Project Team, 2002.

2.3.4 PERI-URBAN PARTNERSHIPS

Community Support Agriculture (CSA) Peri-Urban Partnerships

While industrial agriculture has several benefits, including large harvests, it is heavily reliant on machinery, energy and chemical inputs. It also has socioeconomic impacts both on urban and rural lifestyles. Small family-farms may become noncompetitive as compared with mega-size industrial farms, or may disappear due to urban sprawl. Their disappearance changes both the physical and social qualities of the countryside. It also affects the quality and the selection of food for the urban dweller, possibly making locally produced vegetables hard to come by. Food imported and transported over long distances is energy-intensive and carry extra costs, may be fumigated or “cold pasteurized” (radiated) if the produce crosses borders, or may contain traces of pesticides and chemical fertilizers.

Alternative to Industrial Architecture

Community Supported Agriculture (CSA) is one alternative whose main objective is to resolve some of the problems associated with industrial agriculture. It is a peri-urban partnership between farms and city dwellers, where each participant “sharer” buys a share in a local farm’s production, hence supporting local, family-based farming practices, and securing a share of organic, locally-grown produce to the participants.

Source: Equiterre, 2002.

Worldwide Activism

CSA is a widespread phenomenon in Europe and North America that originated in Switzerland and Germany in the 1980s. It exists in Japan since 1965 under the name teikei, literally “partnership” or metaphorically, “food carrying the farmer’s face.” Thousands of projects exist in North America and a few hundred in Canada. In Montreal, CSA is coordinated by Equiterre.

Not-for-profit organizations, such as Equiterre and Eco-initiatives (called Action Comunterre since 2003) offer farmer-city resident partnerships, and food solidarity networks respectively. They appeal to a different segment of urban gardeners whose social activism and ecological concerns overshadow the need for food production and income-subsidy.

Equiterre

Equiterre is a nonprofit organization whose mission is to support and facilitate access to:

- a) Organic agriculture
- b) Ecological transport
- c) Equitable commerce
- d) Energy efficiency

It also publishes the Equiterre bulletin with: “stuff, practical advice and places to know about” in order to support day-to-day organic food needs and responsible citizen consumption. Equiterre manages a Quebec-wide network with more than 50 participating farms in 2002 (77 farms in 2005), with several thousand consumer sharers. With this project, Equiterre aims to support the development of Quebec’s organic farms and make their produce more accessible.

“Community Supported Agriculture: ecological, economical and an act of solidarity”

Pesticide-Free, Organic Foods and Affordable

“Community-supported agriculture respects the environment and encourages local organic production. No pesticides or chemical fertilizers are used. CSA supplies delicious, fresh, healthy organic food at an affordable price: the produce generally costs between 10% and 50% less than what you would pay in the store.”

Support to Local, Small, Family-Owned Farms

A network of direct physical and financial participation is established between city dwellers and local, often family-sized, farms. Some of these farms are also committed to organic or biodynamic growing principles, thus protecting the land against the abuses of industrial agriculture, such as large pork farms or monocultures of for example corn, which serves largely as animal feed.

Source: Equiterre, 2002.
The Project Team thanks Mr. Jean Rousell and his wife of the biodynamic farm Cadet-Roussel for having received us and giving us a unique experience milking their (happy) cows by hand!

Costs

Share prices vary from farm to farm, but fall within the following ranges:

- a) \$10-\$18 per week (1-person share)
- b) \$15-\$29 per week (2-person share)
- c) \$20-\$38 per week (family share)

The delivery season lasts an average of 20 weeks, usually from June through October

2.3.4 COLLECTIVE ECO-INITIATIVES

ACTION COMMUNITERRE SINCE 2003

Number of Garden-Farms

About 150 gardens in the Notre-Dame de Grace neighborhood are divided amongst 10 community partners. Partners are groups that Eco-initiatives work with in NDG.

Quantities Produced

Approximately 1000kg produced in 2002, less than before due to bad weather conditions; first wet and cold, then a big drought.

Value of the Food

The value depends on food quality, and whether one calculates the value in terms of the equivalent market price for organic or conventional food. In 2002, lighter vegetables like lettuce or arugula were grown and not as much radish or rutabaga. This means the weight of the harvest was less, but probably more valuable to the farmers. The food's monetary value to the gardener may be more important than its weight.

Beneficiaries

About 275 households participate in the food bank, contributing to about 1000 people (assuming 3 per household). About 60% of that amount goes to "Chez mes Amis" an eatery for people who have limited access to quality food. The food is pooled and distributed as meals they make for about 200 people per day, but its contribution is less clear than the food bank's.



Cadet-Roussel: bio-dynamic farm and Equiterre partner Project Team, 2002.

Eco-initiatives in Montreal Neighborhoods

- a) 18 collective gardens in Notre Dame de Grace (NDG)
- b) 2 in LaSalle
- c) 6 in Villeray
- d) 4 in Rosemont
- e) 1 in Pierrefonds
- f) 1 in La Pointe
- g) 4 on the Plateau

Demographics

No formal study has been conducted, but an educated guess of:

Income	Age
25% < 10 000\$ per year	60% 30-55 years
50% 10 000\$ - 25,000\$	20% 18-29
25% 25 000\$ - 35 000\$	20% 55+