If we place Montreal in the global context, urban agriculture in Montreal reflects many similarities in terms of economic and social motivations with other cities. However, the issue of food security is not as relevant to Montreal as it is to certain poorer cities. Montreal is privileged in two respects: Firstly, many people (the majority) either own or have access to their own private land. Secondly, for those who do not have access to open land, the city of Montreal plays the role of a “facilitator” of community services such as: access to land, protection of gardens and providing adequate infrastructure and maintenance resources. According to these standards, Montreal has by far the most committed municipal organization and staff in support of its community gardens.

However, other forms of urban agriculture also exist in Montreal. These forms include the collective gardens (like eco-initiative), independent from the community garden program, which rely on private support and volunteerism for their land and labor, respectively. Also, other social activist groups such as Santropol Roulant and Equiterre have organized invisible, yet powerful links between farmers and urban dwellers who either want to enrich their life or improve their food quality. Producing food staples for daily use and freshness locally is a naturally occurring and ancient practice which makes more sense. Urban agriculture is complementary to rural production, and may be self-sufficient for certain crops, and has proven itself to be self-sufficient for most needs in situations of economic crisis, war or environmental deterioration.

Urban agriculture is only a contradiction of terms in the conventional sense. In fact, transporting fresh food over long distances is both expensive, pollutes, and jeopardizes food quality. Producing food staples for daily use and freshness locally is a naturally occurring and ancient practice which makes more sense. Urban agriculture is complementary to rural production, and may be self-sufficient for certain crops, and has proven itself to be self-sufficient for most needs in situations of economic crisis, war or environmental deterioration.

<table>
<thead>
<tr>
<th>Function</th>
<th>Community producing together to sell</th>
<th>Community produce for themselves</th>
<th>Coordination of production to maximize sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bring home surplus</td>
<td>Give away surplus to food banks and other charities</td>
<td>Surplus for own use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>City folk/farm folk partnership</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization</th>
<th>City sponsored or private</th>
<th>Incorporated as nonprofit organization</th>
<th>A partnership between a farmer and a group of citizen (shareholders)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incorporated (Montreal: only 51% of city-sponsored gardens are incorporated)</td>
<td>Volunteer participation</td>
<td>Varies between countries</td>
</tr>
<tr>
<td></td>
<td>City programs have 6 full-time staff, and about 60 specialized resources that are used on occasion from Parks and Public Works</td>
<td></td>
<td>Women are very active</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Land tenure (not so much an issue in Montreal)</th>
<th>Long waiting list: not enough space</th>
<th>The limited choice of produce</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High-set up costs: Tedious process for individuals (demand-driven, rather than supply-driven)</td>
<td>High start-up and soil decontamination cost</td>
<td>The risk of the bad farming season</td>
</tr>
<tr>
<td></td>
<td>High start-up and soil decontamination cost</td>
<td>Land availability and competitive uses</td>
<td>The large amount of produce given to the shareholders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Inexpensive maintenance of land and recreational service (as compared to building a pool)</th>
<th>Collectively plan and experiment with planting, composting and collection of seed methods</th>
<th>Access to organic food</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Care for the elderly City greening Decontamination Less pollution Social Integration Private, secure plot</td>
<td>Provide access to quality food for those who cannot afford it Solidarity between different groups Quality foods</td>
<td>Low cost Support to a local farmer Concern for a healthy environment Increase sense of community</td>
</tr>
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<td></td>
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</tr>
</tbody>
</table>
4.1 COST AND BENEFITS TO GARDENER AND GOVERNMENT

**Budget Of One Gardener**

a) $10 per year to the city to cover the rent of the plot
b) $2 to the city for the maintenance of the facilities
c) Approximately $25 per year for the seeds, seedlings and fertilizer (after the first year, certain seeds can be obtained and reused from the plants, e.g. the bulbs of lotus roots could be obtained in the winter for the next year)
d) Approximately $205 per family for preserving fruits and vegetables for non-growing months by freezing, canning, pickling and drying

**Time Invested**

a) Retired people: 2-3 times per day from the beginning of May to the end of October
b) Working people: Weekends

d) Work Donated By The Participants

**Manager of the garden:**

The manager is a volunteer gardener, who besides working in his/her own plots is also responsible for the administration and arrangement of the garden. For example, he/she urges other gardeners to keep their plots clean.

**Ordinary gardener:**

They usually water the plants twice a day (morning and after supper). Some of the community gardens have flexible workpipes for irrigation. Water usually comes from the apartment close to the garden. Gardeners of some other gardens irrigate their plants by hand.

**April**

Yearly reunion, convocation, vote (President, VP, Secretary, Treasurer)

**May**

Soil preparation, planting of carrot and lettuce

**June**

Everything with stems is planted & Fruits

**July**

First harvest

**August**

Corn party

**September**

Harvest

**October**

Clean soil (turf up annuals which have ceased production and bad herbs, take away residue, clean equipments and rinses if necessary to control against pests)

**November**

Turn “becher” soil deeply, correct pH value (with lime, wood ashes), cover with a “paillis” or sow oats, “orge” or cover to protect against erosion.

**Budget Of The City**

- $770,400 in total for all Montreal for the 2000/2001 year
- Approximately $2000 per plot at the very beginning, not including the cost of soil decontamination
- Approximately $120 per plot in annual maintenance cost
- The total annual budget of Sports, Leisure and Social Development Services (SLSDS) is approximately $115,000 including all the administrative, coordination, publication and distribution functions.

The total annual budget can be divided into Dedicated management resources and Non-dedicated resources:

**The Dedicated Management Resources Include**

- Coordination ($12,600), including transport/Distribution ($2700)
- Communications and Publications ($7,000)
- Horticultural Animation ($90,000)
- Social functions: Soinée du Mérite Horticole ($5,800)

**Non-dedicated Resources Include**

- The development of new gardens ($150,000 for one new garden)
- Environmental clean-up ($300,000 for one new garden)
- The relocation of existing gardens ($60,000 average)
- The maintenance of existing gardens, which includes earth, compost, gravel, wooden containers, dry toilets, water barrels, repairs, etc ($140,000)
- Incidental

**Work Donated By The City**

**Dedicated Human Resources**

- Superintendent from SLSDS supervises the program.
- 5 Horticultural Animators serve as liaison between the gardening activities and the administration

**Non-dedicated Human Resources**

- 10-12 Development Agents who supervise start-up and maintenance activities, and coordinate the community garden efforts
- Park, Garden and Green Space Services (SPJEV)
- Public and Environmental Works (STPE)
4.2 INDIVIDUAL MOTIVATIONS

Food Security And Income
In 1999, the average spending of one-fifth of households with the lowest incomes was $17,750. After adjusting for differences in household size, total spending per person was $14,500 for households in the lowest income. Average per-person spending on food was estimated at $2,580.

Per capita vegetable consumption is almost 164 kg by 2000. Consumption of fresh vegetables, excluding potatoes, stood at close to 68 kg per person. Lettuce, onions, carrots, tomatoes and cabbage were most popular.

Each plot is an income-producing venture that costs each gardener $75 while producing an equivalent of $150-250 per season (La Feuille de Chou, Sept-Oct 2002), with some intensively run gardens producing significantly higher yields and multiple crops.

According to the above data, the harvest from community gardens can save 10% food spending for a lowest income person.

Recruitment / Leisure
Community gardens offer a place for people to meet, in addition, the diversity of community gardens helps to create a deeper sense of community.

People from different countries, with various aims, all involved in the same movement, can work together.

The urban farmers work with the land and are able to be in contact with nature. This means more to the older segments of the population. Community gardens cater to the older segments of the population with gardeners 55 years or more representing at least 44% of gardeners in 5 out of the 9 boroughs, and gardeners 45 years or more representing at least 65% of gardeners in 8 out of 9 boroughs. About 75% of gardeners come back every year. The youngest area is the Plateau Mont-Royal/Centre-Sud with 52% of gardeners less than 45 years old.

The benefits of farm practice are reported to relieve stress and increase employees' productivity.

To the poor immigrant, especially those who don't understand English and cannot find a job, the ownership of a land (plot) renders social aid, self-esteem and confidence.

Social Activism
Community gardens help participants plant their native vegetables and foods that are often difficult to find in general market or are too expensive.

Community gardens allow the community members to keep their cultural heritage and improve the city's multi-cultural environment. As a result, the connection of different cultures in a neighbourhood will grow stronger.

The average distance a piece of food traveled to get to our plates in 1960 was 265 miles, in 2002 this distance has risen to an average of 1,500 miles (Roberts 2002).

A heightened awareness of energy efficiency in the mid of 70's and then increased concern for the environment in the 80's partially explain the different stages of community gardening popularity in Montreal.

Environmental Consideration and Quality Of Food
Cleaning the area is a first step in bettering the surrounding physical environment.

Covering exposed soils on abandoned or otherwise barren land with plant life stabilizes slopes and erosion of soil, reducing run-off and flooding problems.

Utilizing leaves in compost for community gardens saves the city and taxpayers money and room in the landfill.

The added variety of plants makes the ecosystem safer.

The reduction of the transportation of produce cuts down the use and need for fossil fuels required by trucks, ships, storage and refrigeration, a decrease in packaging materials, and an overall improvement in air and even water quality.

Each gives and takes different nutrients for the soil and reduces the need for chemical pesticides and fertilizers that reduce other environmental and health concerns especially in densely populated urban areas.

Locally generated food without fertilizer is healthy food.

Source: Project Team
The table summarizes both community related challenges and individual motivations which give rise to different forms of urban agriculture. We have identified three major types: co-operative, collective and individual gardening, all of them either public or private. We have classified experiences in terms of the “choices” that policy-makers, community leaders, planners and architects may use as a conceptual “road map.” The map serves to study the alternative use of under-utilized urban land in the local neighbourhood and cultural concept. There is no solution that fits all. Finally, the prospect of Community Gardening needs to be understood in context with the peri-urban and rural agricultural activity and to what degree these are industrialized or subsistence-based.

Source: Project Team
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www.mcgill.ca/mchg/projects/

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