GROWING BRIDGES: COMMUNITY GARDENS AND CIVIC GOVERNMENTS

By

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We accept this thesis as conforming
to the required standard

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ABSTRACT

Community gardens and other forms of urban agriculture (UA) make vital contributions to the environmental sustainability, food security, and economic prosperity of urban life. Community gardens also improve cities' social, recreational, and aesthetic qualities. Yet growers continue to struggle for access to land and mechanisms to expand agriculture within cities. An umbrella organization that advocates and negotiates for land access and favourable government policies on behalf of growers could be an effective tool for increasing UA within the City of Vancouver. Acting as an intermediary, an umbrella organization could navigate the requirements of civic administrators and other land stewards on behalf of growers. This research engaged community garden and UA stakeholders, and the City of Vancouver Social Policy unit in an action research project to examine civic systems and the intermediary socio-political functions an umbrella garden organization could perform to increase agriculture in the City of Vancouver.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: FOCUS AND FRAMING

Introduction

Urban agriculture (UA), the growing of food including plants and animals in the urban environment (Holland Barrs Planning Group, 2002), is emerging as a vital component of a vibrant and healthy urban ecosystem. Environmental concerns over global warming and air and water pollution, and a desire for alternate food sources close to home have fuelled a growing interest in the many varied forms of UA. These forms include but are not limited to residential gardens, entrepreneurial farming, rooftop gardening, hydroponics, the raising of chickens, the growing of fish, the tending of bees, and public gardens in local parks. Community gardens, a particularly popular form of UA, are "parcels of land divided into small plots for local residents to grow their own flowers, fruit and vegetables" (Dobson, 2006, p.¶ 1). This research sought to increase the acceptance and practice of UA in its many forms by developing a model to create more community gardens in the City of Vancouver. This model can function as a template to increase other UA forms.

In North America, community gardening has gone through a series of stages. School gardens were popular at the beginning of the 20th century, and through both the first and second world wars, victory and war gardens were popular (Cosgrove, 1998). After World War II, there was a decline in community gardening, but since the mid-1960s there has been an upswing of interest in alternative agriculture, which has led to a growing interest in community gardens since the mid-1980s.

Vancouver's modern community garden movement began in 1985 with the development of Strathcona Community Gardens (Cosgrove, 1998). Strathcona Gardens

are built on Vancouver Park Board land; the park board administers its land separately from the rest of the City of Vancouver. At the time, city officials were not familiar with the concept of shared community gardening. Government officials were slow to accept community gardening, and organizers found little support and were met with "political indifference" (Cosgrove, 1998). Today, the movement has acquired considerable acceptance and popularity with the public and is gaining support among some city officials and politicians. According to Cosgrove, "municipal planners are having to take notice and respond more to community based gardening initiatives and proposals" (¶ 68). This acceptance bodes well for the future of community gardening, UA, and gardening initiatives in general.

Emerging practices such as rooftop gardening, food security collaborations, boulevard gardening, guerrilla gardening, yard sharing, and native plant restoration have substantial benefits to offer the urban environment. Many people believe the benefits are essential for the health of communities and cities. Air purification, smog reduction, food production, economic health, preservation and development of green space, community building, and physical and recreational activities are a few of the payoffs associated with the many forms of UA including community gardens (Blair, Giesecke, & Sherman, 1991; Johnson, 2005; Kaethler, 2006; Lui, 2002; Mazereeuw, 2005; Mougeot, 2006; Smit, 2008; Strutynski, 2005; Wackernagel & Rees, 1996). These benefits are important rationales for an increase in UA and CG, and are the underlying principles that motivated this research project.

I have been part of the urban agriculture movement since 1989 as a member of the original Strathcona Community Gardens. My experience and interest led to my

involvement with various other community gardens, the building of many boulevard gardens, an educational garden, native plant restorations, residential gardens, and the ongoing construction of a rooftop garden. As an advocate for the greening of public and private spaces, I am familiar with the challenges often encountered when building and maintaining urban gardens.

Notwithstanding the growing interest in modern community gardens, there are still many obstacles and barriers to its progress. Streamlining government procedures, building community and organizational capacity, securing funding, and incorporating building design requirements are a few of the important challenges facing the future of community gardens (Kaethler, 2006). In broad strokes, gardeners simply want to garden and rarely have an interest in dealing with the bureaucracy and governance involved with the development and implementation of community gardens. The result, with a few exceptions, is that inspired gardeners accrue on growing waiting lists for a limited number of available garden plots, land remains underutilized or feral, and opportunities for food security, recreation, and community building are missed.

Key stakeholders, including the Social Policy unit of the City of Vancouver (this project's sponsoring organization) and garden advocates, are searching for effective and mutually beneficial solutions. These stakeholders want to simplify and streamline the community garden approval and garden building processes while retaining responsible land stewardship and integrity of garden maintenance. As a solution, Terra Kaethler (2006), in her review of available growing space in the City of Vancouver, recommended the creation of "a regional umbrella organization" (p. 78). Such an umbrella organization could act as an interface between gardeners who have little energy for bureaucratic

matters but simply want to garden, and government officials who are tasked with responsible stewardship of civic property.

One of potential functions an umbrella organization could perform is to sponsor new gardens. The City of Vancouver's interim *Community Garden Policy* requires all community gardens to be operated by a non-profit society (City of Vancouver, 2006a). There is a provision in this policy that enables an existing non-profit society to sponsor the building of a new garden. The provision can eliminate the obstacle and complications of starting a new non-profit society in order to create a new community garden and is an important element that may enable a non-profit umbrella organization to sponsor multiple gardens. This multiple garden sponsorship by an umbrella organization would reduce the administrative obligations of the gardeners and enable them to focus more on gardening. The umbrella organization could also manage other administrative tasks to further simplify the development processes and make it easier for gardeners to create new gardens.

Although an umbrella organization holds promise for community gardeners, this research also identified alternative options for overcoming key barriers to creating community gardens. In order to avoid superficial examination of the many potential themes in this topic, I limited the primary focus of this research to how an umbrella organization could effectively facilitate the development and building of new community gardens. Therefore, my research question was: "What intermediary socio-political functions can an umbrella organization perform to facilitate and expedite the building of new community gardens in the City of Vancouver, BC?" The sub-questions were:

1. What are the benefits, rationales, and justifications for supporting and promoting an increase in UA and community gardening?
2. In what ways can grassroots leadership and community capacity be leveraged by an umbrella organization to build new gardens?
3. What alternate governance models, mechanisms, or practices would encourage new garden building?
4. In what other ways can an intermediary organization navigate the bureaucracy between landowners (private owners, businesses, large corporations, housing strata, Crown or civic land) and growers (community gardeners, entrepreneurial UA farmers, strata residents, and others)?

The sponsoring organization for this project was the Social Policy unit of the City of Vancouver. Although I work for the City of Vancouver as a coordinator of security services for a large inner-city community centre, my position as a city employee did not provide me with any official influence or authority over UA policy or practice. However, in bringing my personal experience forward, I invited key community stakeholders to join in the process of research and exploration.

The Opportunity

The City of Vancouver (2005) has adopted a Sustainable City Policy that encourages the expansion and growth of environmental initiatives (¶ 5). With these stated city values and growing public awareness, innovative UA practices such as rooftop and community gardens are emerging. However, as a survey of property available for UA showed, potential growing spaces are still vastly underutilized and latent benefits are not forthcoming (Kaethler, 2006). For example, rooftop gardens are rare, many residential

yards remain unused, school grounds are often paved or gravelled, abandoned property grows feral, boulevards are largely grass, and parklands have few gardens relative to sports fields and grasslands. Growing interest in and civic acceptance of urban agriculture and community gardens is helping to make better use of available spaces and realize the associated benefits (City of Toronto, 2008; Cosgrove, 1998).

Many community garden organizers have expressed to me, through personal conversations, that the garden building approval process takes too much time and is too cumbersome, and as a result, too few community gardens are being built (Hall, 1996). There is a desire among these organizers to find a way or a mechanism that will dramatically increase the building of community gardens. Some of these community organizers believe that some type of umbrella or intermediary group needs to be created in order to solve the problem of too few gardens being built. My project sponsor, Devorah Kahn of the Social Policy unit with the City of Vancouver, is also optimistic that an intermediary umbrella organization could be a valuable mechanism for building more community gardens. Researching how this umbrella organization or any other sponsor could act as an intermediary presented a valuable opportunity for the city, the gardening community, and the residents of Vancouver to reap the rewards of an increase in community garden building.

The City of Vancouver is in a unique position to take advantage of the opportunity to develop, encourage, and incorporate an array of innovative public and private gardening practices. Vancouver has a worldwide reputation for innovative planning and building design. As well, as the eyes of the world focus on Vancouver for the 2010 winter Olympics, the city has the opportunity to demonstrate to the world how

to incorporate urban greening within the complex structures of a large international city. Vancouver's City Council supported an initiative to develop 2,010 new food-producing garden plots as part of a 2010 Olympics legacy. At a time when society is concerned about the greenhouse effect, smog, water pollution, crowded urban environments, and food security, leadership in UA and community gardens has a significant role to play in mitigating many of these contemporary urban concerns. The prospect of participating in and adding value to this emerging trend through the development of an intermediary umbrella organization is a timely and valuable community development opportunity.

The Significance of the Opportunity

As evidenced by the increase of agriculture initiatives and community gardens in the past 20 years, the UA movement is continuing to gain strength and relevance. These increases are the result of many significant positive benefits derived from UA. Wide-scale UA can have an important effect on food security, reducing stress on overburdened storm-water sewer systems, moderating urban climates, purifying the air, building an engaged community, and beautifying neighbourhoods (Blair et al., 1991; Johnson, 2005; Kaethler, 2006; Lui, 2002; Mazereeuw, 2005; Mougeot, 2006; Smit, 2008; Strutynski, 2005). For example, in her study on rooftop gardens, Lui (2002) stated that, "if widely adopted, rooftop gardens can reduce the [city's] heat island, which would decrease smog episodes, problems associated with heat stress and further lower energy consumption" (¶ 2). There are other significant benefits too.

One of the mandates of Vancouver's Social Policy unit is to create policies and support community groups to develop programs and initiatives that establish food security in the City of Vancouver. Food security is an essential component in ensuring

that all citizens of a geographic area have the ability to feed themselves with healthy nutritious food regardless of economic status or in the event of a disaster or crisis. Nowack (2004) pointed out that, "while UA cannot be relied upon alone to reduce hunger, it should be an important component of a comprehensive system of food security" (¶ 5). Accordingly, as a component of its food security mandate, Social Policy has a key role to play in the development of UA initiatives as they relate to food production. Vancouver City Council's goal to develop 2,010 new food-producing garden plots by 2010 is an important food security initiative.

A successfully implemented umbrella model could make a significant impact on the building of new community gardens. As well, important aspects of this intermediary model could potentially be extended or diversified to assist in the development of other forms of UA such as rooftop gardening, entrepreneurial UA, and use of commercial and private lands for gardens or micro farms. Other municipalities with similar governance practices could also reference this model to increase community garden building and other UA initiatives. Sharing the results of this research could inform the choices these many community stakeholders and governments are facing.

Even in the absence of this research, attempts to develop an umbrella or other model for Vancouver are likely to continue, with interested community members carrying on in an attempt to unite stakeholders to develop an umbrella organisation. However, such efforts to build an umbrella organization could benefit greatly from the more rigorous academic process of investigation into the key mechanisms that are most effective for building gardens over the long term. The risk is that, without a systemic understanding of all the issues, the umbrella organization could fail to achieve its target.

In addition, there is an increased risk that the pace of building new plots and gardens in the City of Vancouver would remain slow, other forms of UA would not be promoted, and other municipalities would not have the benefit of a successful model.

As awareness of environmental hazards mount, there is a risk of acting too slowly with potentially negative consequences. In fact, concerns over the potential irreversible effects of global warming are already emerging from the scientific community (David Suzuki Foundation, 2007). Organizations that have the ability or foresight to take advantage of this type of research will lead the way to progressive change in innovative and beneficial community gardens and other UA practices. Ultimately, this type of research will benefit the environment, food security objectives, and community engagement. For these reasons, this research is a valuable opportunity for the sponsoring agency and related stakeholders.

Systems Analysis of the Opportunity

Systems thinking is "a way of understanding wholeness and intricacy in relation to the greater world" (MacIver, 2007, p. 1). By understanding how parts fit into a whole system, people can learn how changes in one area can affect other parts of the system (MacIver, 2007). There are a wide variety of interests and objectives among UA stakeholders, with many parts making up the whole. In order for readers to understand how these parts fit together interdependently to make up the whole, I next give a picture of the various stakeholders involved in and affecting UA in the City of Vancouver.

In Canada, civic governments are primary stakeholders and regulatory bodies for UA. In Vancouver, regulation falls largely under the jurisdiction of the Mayor, City Council, the Vancouver Park Board, the Vancouver School Board, and civic

administrators through by-laws, policies, and general practices. Provincial regulations are mainly restricted to the Agricultural Land Reserve (ALR) in Vancouver's Southlands area (City of Vancouver, Community Services – Planning, 2007).

International focus on the environment, global warming, and food security is highlighting the value and need of agriculture as one component of a sustainable urban environment. In 2005, the United Nations Environmental Programme (UNEP) stated that "cities play a key role in global efforts to protect and manage vulnerable ecosystems and biodiversity" (p. 2). UNEP recognizes the importance of UA practices in mitigating serious ecological problems created by the urban environment.

The rise of organizations promoting the development, research, and advocacy of UA has been steady. There are many contributors to this worldwide movement. One key contribution is made by City Farmer, a Vancouver-based organization that has become the "largest provider of UA information in the world" (City Farmer, n.d., ¶ 2). Other diverse groups are involved in a wide variety of innovative, unusual, and often-groundbreaking agricultural practices in Vancouver and elsewhere around the world. An exhaustive inventory is not possible here; however, the following list includes some key influential groups in Vancouver.

The Environmental Youth Alliance engages youth in environmental initiatives including urban agriculture projects (Environmental Youth Alliance, n.d.a). Evergreen (2008) is a national organization promoting nature in urban environments. The Urban Diggers is a small non-profit society that sponsors five community gardens in the Mount Pleasant district of Vancouver (Plain Black Software, 2002). The Urban Diggers successfully operates as a small umbrella organization. The Vancouver Community

Agriculture Network is funded to support vulnerable communities to develop community gardens and other kinds of UA. It also promotes the creation of an umbrella organization for Vancouver gardeners (Vancouver Community Agriculture Network, n.d.). In 2007 the Vancouver Urban Agriculture Network (VUAN) formed to represent the interests of gardens citywide (Vancouver Community Gardens, 2008). According to their home page, VUAN "advocate that local city garden policy represent the gardeners that would prefer to be gardening than dealing with policy makers" (¶ 3). The Vancouver Guerrilla Gardening Meetup Group practises gardening in vacant property without permission (The Vancouver Guerrilla Gardening Meetup Group, 2007). There are 14 independent societies operating community gardens on civic property in Vancouver. Private property owners and developers are also important stakeholders and creators of green spaces and gardens.

There is also a number of public institutions involved in UA. The Vancouver Food Policy Council is a volunteer advisory board that reports to Vancouver's City Council and includes community and government participants. The council works closely with the Social Policy unit of the City of Vancouver to advocate for food security and advises the civic government and others on food security issues including the development of community gardens, food waste management, food access, and other food-related initiatives (City of Vancouver, Community Services – Social Planning, 2008b). The Vancouver School Board sponsors more than 20 educational gardens (Environmental Youth Alliance, n.d.b).

Many of these groups advocate for changes in several broad categories. For example, some groups advocate for an increase in food security. Food security is a major

driving force influencing most UA initiatives. Vancouver's Food Policy Coordinator, Devorah Kahn, and Vancouver's Social Policy unit are primary planners for food security and community garden initiatives in the city. Other areas these organizations advocate for are environmental accountability, recreation and community building, and youth engagement and education.

Although not part of an organized movement in opposition to UA, urban planners and civil servants have their reasoned concerns. Bryld (as cited in Dobyns, 2004) said: "Urban agriculture can also be [an] environmental disaster, degrading the natural environment, ruining drinking water, and growing plants with contaminants from the urban setting" (p. 37). Addressing these concerns from a holistic / systemic perspective should help in developing sustainable solutions.

Understanding the interplay between resistance and endorsement is vital to seeing the whole of the system. While local, national, and international organizations put powerful political pressure on all levels of government to take meaningful environmental and food security measures, pressure simultaneously builds on government bureaucrats to change old practices and policies. However, bureaucratic systems do not change easily and often for good reason. Coghlan and Brannick (2005) stated that "resistance is a healthy, self-regulating manifestation which must be respected and taken seriously by the action researcher" (p. 120). Well-worn successful policies and procedures can provide stability and predictability in a chaotic world. Working cooperatively to strike the right balance between retaining useful elements of older procedures and changing outmoded elements will take careful reflection, testing, and dedication.

Organizational Context

Caring about the environment is a key component of Vancouver's operating strategy. The City of Vancouver's (1994) mission statement is, "To create a great city of communities which cares about its people, its environment and the opportunities to live, work and prosper" (¶ 1).[1] Many of the environmental policies and programs emerging throughout the city's departments reflect the environment as a high priority for all stakeholders. Understanding the city's organizational structure should provide insight into how to incorporate environmental issues and UA management.

The City of Vancouver is a large and complex organization with more than 9,000 employees. Vancouver's Mayor and City Council are publicly elected and are accountable to the citizens. They and have the authority to pass by-laws and give direction to the city manager and the various city departments. The Vancouver Park Board is also an independently elected board. This independence is important in understanding the park board's role in developing UA opportunities in Vancouver. The Police department and Library have non-publicly elected boards that operate at arm's length from the City Council. The city manager oversees the operations of all remaining departments. These departments are divided into 10 service groups and departments. These groups include Engineering Services, Community Services, Business Planning and Services, Financial Services and Legal Services.

Of the various large divisions within the City, the Park Board, Engineering Services, Business Planning and Services, and Community Services, have the most influence and impact on UA opportunities within the city. Of these four, Social Policy, a

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branch of Social Development within Community Services, has a key role in UA. According to the Social Policy Web site, "Social Planning *[sic]* participates in the overall planning of the city, reviewing developments and seeking new and creative ways to support and address cultural and social needs" (City of Vancouver, Community Services – Social Planning, 2008a, ¶ 1).[2]

There are 11 social planners responsible for such areas as youth engagement, childcare, seniors, gambling, multicultural programs, food policy, and other similar social programs. Responsibility for many of the city's UA programs and initiative falls to the food policy coordinator, within the Social Policy unit. The food policy coordinator partners with a variety of city, community, and private groups to endorse and promote UA and food security initiatives within the city. Some of these initiatives are the 2010 Olympic legacy garden plots, the Vancouver Food Charter, the Vancouver Food Policy Council, and the development and recommendation of policies as they relate to food security and UA to Vancouver City Council. The Social Policy unit is currently going through a reorganization, which may alter the roles and reporting structure of the food policy coordinator.

The Park Board has significant involvement in the expansion of community and public gardens through the leasing and development of park property. The Board operates several world-class ornamental gardens in Stanley Park and Queen Elizabeth Park, and leases the operating of the Van Dusen Botanical Garden to a non-government organization. The Vancouver Park Board leases property for 11 community gardens on parkland (Vancouver Park Board, Parks and Gardens. 2008b). In 1996, the park board

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developed and endorsed a policy on community gardening (Vancouver Park Board, Parks and Gardens. 2008a). This policy is a sign of positive support for UA.

Greenways and Neighbourhood Transportation a branch of Engineering Services is responsible for greening and trees along transportation corridors. It coordinates a number of initiatives such as the "greenways" project that develops green corridors for "pedestrians and cyclists that connect parks, nature reserves, cultural features, historic sites, neighbourhoods and retail areas" (City of Vancouver, Engineering Services – Streets, 2008, ¶ 1).[3] Greenways authorizes permits for community gardens on Engineering Service's land and runs the Green Streets program that coordinates the planting of boulevards and traffic circles.

The city's Real Estate Services is a branch of Business Planning and Services. Real Estate is a substantial holder of city land that could potentially be used for UA. Currently no Real Estate land is used for UA.

Other branches and departments have some influence over various aspects of urban agriculture such as permits and licences, and city planning. For example, altering by-laws to accommodate agricultural or environmental practices requires the city's legal department. In another instance, building permits are required for certain structural designs such as rooftop gardens.

The city does not have an official policy on agriculture initiatives; however, a number of guidelines and principles affect and guide activities. Draft community garden operational guidelines were presented to and adopted by City Council in 2006, with plans to review, revise, and resubmit the guidelines for adoption in 2008. The current draft

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guidelines for community gardens require that all community gardens on civic property be administered through a non-profit society as defined by the provincial Society Act (City of Vancouver, 2006a). These guidelines allow for a sponsoring organization to represent a group of gardeners. The sponsoring organization then administers the bureaucratic requirements of the gardens, while the gardeners operate the physical building and maintenance of the gardens. The Vancouver Park Board *Community Gardening Policy* also requires community gardens on park property to be administered through a non-profit society and allows for the sponsorship of gardens (Vancouver Park Board, Parks and Gardens. 2008a). The city and park board provisions allow for a non-profit umbrella organization to act as a sponsor for other gardens, and this aspect is what was studied in this research project as a significant mechanism to increase UA.

As well, a definition of sustainability was sanctioned by City Council in 2002. This definition stated: "In such a community sustainability is achieved through community participation and the reconciliation of short and long term economic, social and ecological well-being" (City of Vancouver, 2005, ¶ 5).[4] This declaration guides city departments to develop sustainability policies and guidelines, and legitimizes environmental initiatives such as community gardens and other UA practices.

A number of by-laws have some effect on a range of agriculture programs and activities within the city (City of Vancouver, 2004). Health By-law 6580 includes controls on the raising and keeping of livestock. The Licence By-law 4450 deals with licencing of all commercial businesses including food service and farmers' markets. The Water Shortage Response By-law 7109 governs water rationing. The Street Tree By-law

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5985 controls the planting and cutting down of trees. The Solid Waste By-law 8417 deals with recycling and hence composting. The Zoning and Development By-law 3575 controls certain zoning – such as the RA-1 Zoning – that allows for agricultural use (City of Vancouver, Community Services – Planning, 2007). This by-law also allows for Community Amenity Contributions through rezoning by diverting contributions for rezoning to community amenities and programs such as the development of parks, gardens, and other social programs (City of Vancouver, 2004). The abundance of by-laws, zoning restrictions, and other regulations complicates efforts to implement UA projects because of difficulties coordinating the expectations of different departments involved.

Civic employees work in a wide array of contrasting jobs and groups. Communication and collaboration across these groups can be sluggish. In 2006-07, I was a member of the Community Services Employee Empowerment Committee, which representing 900 employees. One of the committee's key mandates was to find ways to improve communication between different work units. These work units can act like silos. Communication and resources move freely within the confines of a silo, but movement of resources and communication from "silo to silo" is limited (Côté, 2002).

When a project does not fit a clear mandate of a work unit or when cross-departmental collaboration is essential to project completion, community groups and urban agriculture advocates can find themselves between the silos. In one case that I am familiar with, a group installing an approved planting on city property dealt with three work units that both claimed and disowned authority at the same time. This confusion

and lack of coordination can cause a drain on volunteer enthusiasm, financial resources, and leadership resilience.

As volunteers, leaders, and community organizers, citizens play an essential part in the life of the City. Vancouver's Roles, Relationships and Responsibilities Review Committee (City of Vancouver, 2006b) stated: "Vancouver's citizens make significant and meaningful contributions to City governance, operations and decision making … [and] the City of Vancouver actively encourages citizen involvement" (p. 20). Citizen initiatives and leadership are crucial for the creation of UA and community garden projects; indeed, without them, few if any projects would exist. Therefore, citizen collaboration with civic employees is essential in realizing UA initiatives and in designing an umbrella organization.

A great deal of work is needed to harmonize city values into integrative practice across departments and with residents. Sorting out the confusion and miscommunication and building trust between these silos and the gardening community will be an ongoing challenge. It will also be important to identify the models or mechanisms an umbrella organization can use to best facilitate and expedite new community garden developments in Vancouver.

Chapter Summary

UA and community gardens have an important, though perhaps still somewhat undervalued, role to play in the urban environment. Nonetheless, awareness of the environmental, recreational, social development, and food security benefits is generating a growing acceptance of community gardens. In order to stimulate the growth of new community garden developments, community organizers and other key stakeholders are

rallying to find solutions. Creating an umbrella organization that can bridge the civic system with garden organizers is being considered by some groups. This umbrella organization could help spearhead the development of new community gardens. This research project took on the challenge to understand how an umbrella organization might work and how it might interface with the city. With the City of Vancouver's Social Policy unit as the organization sponsoring this research, I engaged the community to help me understand what an umbrella organization might effectively do to help build new gardens. In support of this research a review of the literature on UA and community gardens follows.

CHAPTER 2: LITERATURE REVIEW

Building new community gardens and encouraging the development of other forms of urban agriculture require considerable understanding of the benefits that stimulate UA development, how to generate community capacity, and ways to govern these kinds of initiatives. The chapter is divided into three main topics. Topic one, the benefits of UA, looks at the reasons it is worth developing the various forms of UA and community gardens. Topic two reviews the methods of engaging community members to participate, volunteer, and take leadership in building and managing community gardens. Finally, in topic three, various governance practices for community gardens are explored and identified.

Topic One: Benefits of Urban Agriculture

Understanding the benefits of urban agriculture (UA) for cities is essential to understanding why it is valuable to significantly increase its practice. The case for UA relies primarily on the urgency to construct a sustainable urban environment. The rapid increase in world populations and the urbanization of civilization have resulted in local and global pressures that threaten the sustainability of the planet. According to Wackernagel and Rees (1996), society needs to question how to plan and design cities and the rural environment they depend upon.

This literature review identifies key themes from the current research that validate the need for a substantial increase in UA as part of a sustainable environmental strategy for the future of Vancouver. In conjunction with the strongly documented environmental benefits of UA, urban farming has the potential to be an economic contributor to the City of Vancouver. Furthermore, the literature indicates that UA can play a role in reducing

inner city hunger among large Western cities. Finally, although the social, recreational, spiritual, and artistic benefits documented in the UA literature appear more anecdotal than academic, there appears to be little disagreement that gardens significantly enhance the livability of urban environments. Developing a clear picture of these benefits contributes an important foundation upon which to begin to build community UA capacity for addressing the common barriers and resistance to UA's widespread implementation.

Sustainability has emerged as a concept that influences how people view their environment, their cities, and the potential for UA. In 1983, the United Nations (UN) created the World Commission on Environment and Development (WCED). At the UN General Assembly in August 1987, the WCED delivered its report, *Our Common Future*. The document stated that "humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 8). The commonly used term "sustainable development" emerged from this statement and has come to embody many core principles of the environmental, sustainable cities, and UA movements. The pressure to develop sustainable cities stimulates much of the effort to increase UA.

Urban agriculture's capacity to contribute to sustainable development is witnessed in Wackernagel and Rees' (1996) concept of an ecological footprint, also known as an urban footprint. An ecological footprint refers to a system of accounting for the resource consumption and wastes produced by a given population (Wackernagel & Rees, 1996). In this sense, any item purchased or consumed within a city creates an impact beyond the boundaries of the city. The total impact of a city is known as the urban footprint. For

instance, the term "food miles" refers to the distance food must travel from where it is grown, to reach the consumer (Anderson, 2007, p. 2).

Using statistics from the United States Department of Agriculture, Pirog, Van Pelt, Enshayan, and Cook (2001) calculated annual shipments of food by weight from every state and foreign exporter to Chicago, Illinois. Averaging the totals, they calculated the food miles from the continental US at 1,518 miles or 2,443 km and foreign imports at up to 2,633 miles or 4,237 km. In Ontario, Xuereb (2005) identified 58 commonly consumed foods that take an average of 2,794 miles or 4,497 km to reach the Waterloo region. In short, the greater the food miles, the more CO_2 goes into the environment. "This is the global warming cost of so-called 'food miles'" (Smit, 2008, Farming in the City and Climate Change section, ¶ 16). Reducing food miles through local urban production and distribution of food limits CO_2 emissions. In this way, promoting the farming of city centres could lead to diminished consequences of urban climate change and global warming (Smit, 2008).

Nelson (1996) suggested that UA can address an issue of food waste that compounds the environmental problems associated with food miles. Rather than return the discarded food products and human wastes as nutrients to the land that produced it, waste is shipped long distances, dumped in highly toxic concentrations, or cleaned through energy-inefficient methods. Growing food closer to the consumption points through UA and returning waste as nutrients to the growing sites close the nutrient loop (Nelson, 1996; Smit, 2008). Mougeot (2006) also supported the nutrient loop concept, stating that "UA has the potential to contribute to a healthier environment by recycling and reusing some of the city's organic waste" (p. 35). Treating waste as a commodity for

use in UA applications further reduces greenhouse gases and contributes to the sustainability of cities.

UA can also play a role in reducing other negative impacts of the urban ecology. For example, cities act as heat sinks, capturing solar energy and releasing it as heat (Mazereeuw, 2005). Also known as the heat island effect, the phenomenon can significantly raise the temperatures of cities. Greening cities can play a significant role in reducing the heat island effect. Research reveals that rooftop gardens reduce the heat caused by exposed tar and gravel roofs by as much as 45° C on a hot summer day (Lui, 2002). Incorporating rooftop gardens into the widespread planning of cities has the potential to decrease the urban heat island effect and related smog and heat stress problems (Lui, 2002; Mazereeuw, 2005).

Lui's research compares two identical roofs. The only difference is one roof has a garden on it and the other does not. By moderating heat flow through the roof, the growing medium on the gardened roof reduced air conditioning energy consumption by 75% in the spring and summer. This energy reduction in turn lowers CO_2 emissions, limiting the effects of global warming. Additionally, plants simultaneously absorb CO_2 and release oxygen, purifying local air and further reducing global warming (Lui, 2002; Mazereeuw, 2005; Smit, 2008). The payoffs of reduced urban heat, cleaner air, reduced smog, and energy savings make rooftop gardens a sound component of a sustainable city strategy. These environmental benefits are important healthy contributors to sustainability in an increasingly stressed urban and global environment. Finding ways to communicate these environmental benefits to the public and policy makers should encourage more support for UA.

Rooftops are highly underutilized urban spaces, with a widespread capability for extensive urban agriculture. Other benefits include reduced storm-water runoff, potential for entrepreneurial agriculture, and increased food security. Water cannot penetrate concrete, asphalt, and rooftops. Storm-water runoff eventually overwhelms the city's sewer systems. In addition, water running over impermeable surfaces picks up surface residue, polluting the water. Rooftop gardens reduce storm-water runoff by retaining water in the soil and cleaning the water by percolating it through the growing medium (Lui, 2002; Mazereeuw, 2005). Increasing permeable surfaces in the urban environment though rooftop gardens and other UA practices improves water retention, thereby decreasing problems associated with storm-water runoff and improving the urban environment.

Estimating modern hydroponic practices, Hohenschau (2005) calculated that a 1.7-hectare rooftop farm built on top of industrial warehouses in Vancouver could potentially produce 400 to 800 tons of vegetables. This type of extensive entrepreneurial UA can play a major role in reducing energy costs, limiting water runoff, generating food security, and supporting a local economy.

According to Mougeot (2006), UA is one valuable component of increased food security in both the industrialized and the developing world. The Food and Agriculture Organization of the United Nation (1996) stated that "food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (¶ 2). Commonly thought of as a problem in developing countries, modern industrialized cities also suffer many forms of food insecurity. About 12% of American families are food

insecure (Brink, 2001). Hohenschau (2005) suggested that, in one district of Vancouver, it may be possible to raise the sufficiency rate of food security by 5% to 20% through UA. Furthermore, the Netherlands has been able to produce as much as 33% of its food from UA (Sommers & Smit, 1994). As is commonly practised with German allotment gardens (Drescher, 2001), the urban disadvantaged could draw upon UA practices such as community, rooftop, and balcony gardens to overcome food shortage issues.

Significantly reducing food insecurity through the widespread implementation of entrepreneurial UA also has the potential to contribute to the economic health of cities (Johnson, 2005; Mougeot, 2006). For example, because urban farmers do not use large industrial-size machinery that requires expansive fields and space between rows, they can produce 5 to 15 times more per acre than rural farming. This intensive practice makes UA effective, both economically and food security-wise (Smit, 2008). In fact, through practices like Honenschau's (2005) rooftop farming design, entrepreneurial urban farming may hold the greatest potential for widespread development of UA.

Kaufman and Bailkey (2000) considered many obstacles and potential limitations of UA, but also stated that "entrepreneurial urban agriculture is clearly in an embryonic stage. Nonetheless, there are indications that the vision its advocates would like to see is becoming more of a reality" (p. 3). Altruistic motivations to increase UA because of the sustainable benefits are worthy and should have a significant impact. However, profits have a way of providing justification for new developments. If the potential for profits in UA is established, entrepreneurial UA may hold the greatest promise of an exponential increase in UA. Therefore, in order to increase the practice of UA and gain the related

environmental benefits, it will be essential to investigate potential methods for promoting opportunities to increase entrepreneurial agriculture within the City of Vancouver.

While the commercial growing of produce can bring economic benefits to the urban environment, community gardens bring an unexpected benefit to the real estate market. In fact, property values can increase as much as 30% in some neighbourhoods where community gardens are developed (Pennsylvania Horticultural Society, 2006). In the Netherlands, the open views created by various forms of urban agriculture are known to increase property values by 10%, whereas traffic noise and imposing buildings reduce property values by 5% or more (van den Berg, 2000). With positive property values recordable up to 1,000 feet from a community garden (Pennsylvania Horticultural Society, 2006), it is a wonder why there are not community gardens on every other block.

UA and community gardens in particular also produce undeniable social, recreational, artistic, and spiritual benefits, yet there is relatively little academic evidence within the UA movement to support it. Perhaps this lack of evidence is because the arguments used are often secondary to environmental and food security justifications for UA. Nonetheless, there is considerable anecdotal evidence that community gardens build strong communities (Malakoff, 1995; Severson, 1990). For example, many writers noted the exceptional value in social network and community building, the aesthetics of a well-maintained garden, and the physical and recreational benefits of UA (Kaethler, 2006; Mazereeuw, 2005; Pennsylvania Horticultural Society, 2006; Strutynski, 2005). More in-depth research comes from Blair et al. (1991) showing that gardeners were more engaged in community activities and social events and considered their neighbours as more friendly and safer than non-gardeners. Furthermore, community gardeners use open

public space such as parks and derelict lots differently than do others. These users take ownership and stewardship of these spaces, making improvements and creating social space (Severson, 1990). Bjornson (2006) said that participating in a community garden "encourages people to get involved in their community and help care for it" (p. 19). Charles Lewis (as cited in Malakoff, 1995) put citizen engagement of gardeners most clearly: "A community activity such as gardening can be used to break the isolation, creating a sense of neighborliness among residents. Until this happens, there is no community, but rather separate people who happen to live in the same place" (p. 19). If cities are interested in building communities, clearly community gardens are an excellent tool that encourages positive interaction among residents.

The community engagement that happens at the garden level can also lead to developing knowledge and skills through day-to-day governance and managing of the gardens. Bjornson (as cited in Malakoff, 1995) wrote:

> The process opens eyes on both sides … the simple act of starting a garden can teach previously powerless people how to get access to city hall, and it can change the perception of the people with power who are looking into the community garden for the first time. (p. 20)

As Bjornson pointed out, people who get involved at the local governance level often become community leaders and activists (Malakoff, 1995).

In conclusion, urban agriculture should be taken seriously as an essential component of building a sustainable future for the City of Vancouver. Although it has been practised for millennia, agriculture's place in modern cities has not only been neglected, but has also largely been rejected as a practice relegated to the rural areas. According to Mougeot (2006), UA "suffers from an image problem and is seldom recognized as a valid land-use category" (p. 65). However, the evidence is clear that UA

can play an important role in the heath and vitality of cities, and that it should be recognized as a valid and valuable land use category. The social, cultural, spiritual, food security, and local and global environmental benefits presented in this review build a compelling and credible case for an increase in UA. This credibility is essential in establishing greater community and non-governmental organizational capacity and in developing an umbrella organization. The message is that UA and community gardens should play a significant part in making cities sustainable and warrant key consideration in the planning of the City of Vancouver, and especially in support of the 2010 Legacy gardens.

Topic Two: Methods for Building Community Capacity and Leadership for Community Gardens

If community gardens are important and worth building, as the preceding section on the benefits of UA and community gardens contends, then it follows that developing community capacity and leadership is a worthwhile step to building more UA. In this section, I review several theoretical approaches for building community capacity and leadership and for developing influence in civic decision-making. These theories can be applied to two levels of building capacity. The first is at the community garden level, where organizers and volunteers must develop skills and leadership abilities for managing the gardens themselves. The second is the building of leaders, advocates, and organizers at a broader citywide level. Whether the Vancouver community chooses to establish a community garden umbrella organization or lobby for more UA through some other means, it is essential to build the skills and leadership abilities needed to have a voice for the changes in UA development the community hopes for. Building a diversity

of community capacity both at the garden level and at the broad civic level ensures that there are always skilled leaders who are capable of stepping up to new challenges in the community.

Engaging people in social development projects is not easy. According to Lukasik (2003), Canadians are highly concerned about the condition and decay of the environment and its effect on their health, but they are slow to take action or become involved in making needed changes. If it is difficult to engage people in an issue that is of significant concern to them, how can people be expected to participate in other community initiatives? Lukasik stated that "unless you can effectively engage members of the public you will not succeed in encouraging social changes necessary to benefit the environment" (p. 1). There are many possible reasons for people being slow to become involved. Barriers include a lack of personal time, a lack of empowerment, an expectation that efforts would be futile and a waste of their time, and a belief that they lack the needed skills anyway (Hartley, 2005; League of Women Voters, 1999; Lukasik, 2003). Therefore, it is essential to take into account and possibly to overcome these barriers in order to engage people in community initiatives such as UA.

As MacKenzie-Mohr (as cited in Lukasik, 2003) pointed out, telling people it is important to get involved or simply that it is good for them is not enough to get them to change or take action. Lukasik (2003) claimed that using a "trigger" to persuade people to become involved is the answer to generating initial citizen involvement. "People respond to messages that emphasize the tangible difference people can make in their communities" (League of Women Voters, 1999, ¶ 14). Presenting the personal benefits derived from potential action begins a cycle of reflection. Critical reflection, known as

double-loop learning, "connects the detection of error not only to strategies and assumptions for effective performance but to the very norms which define effective performance" (Argyris & Schon, as cited in Lukasik, 2003, p. 3) In other words, critical reflection tends to lead to greater insights, which enable people to learn how to change their actions to overcome the barriers.

Helping people develop critical reflection and encouraging them to overcome barriers lead to a cycle of action taking that contributes to continuous improvement. As Lukasik (2003) pointed out,

> Evolution from reflection in the action involves a stepwise process of developing increasingly effective skills for citizen engagement. The first of these skills to emerge is translation, or the development of the ability to repackage information on an issue of concern so as to make it meaningful to other members of a community. (p. 11)

This cycle can be used to the advantage of UA advocates to develop gardens, build coalitions, and develop more influence among governments and landholders.

Once community members are engaged, they need to experience some levels of success or they will lose focus and eventually move on to more productive endeavours. One major obstacle to ongoing participation in the community garden development process is the length of time it takes to approve these proposals. "For local activists, long delays mean that some core members will either lose interest, leave the area, or take on other commitments" (Hall, 1996, p. 72). Decreasing the development time will likely increase the participation. Having real influence in political decision-making is essential for reducing development times and building confidence that volunteer efforts are not futile. As Hartley (2005) writes, "people are only likely to participate when they believe that there may be a positive experience and outcome for them around the issues they are most concerned with" (¶ 9).

Being effective at bringing about real change is fraught with challenges that many community groups may feel powerless to affect. Arnstein (1969) shed light on one of these major obstacles to change by stating:

> There is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process … participation without redistribution of power is an empty and frustrating process for the powerless. It allows the power holders to claim that all sides were considered, but makes it possible for only some of those sides to benefit. (p. 2)

This statement clearly identifies one of the key barriers to citizen engagement in community development – that is, the futility that comes with public processes that are or appear to be disempowering. By becoming aware of control tactics that are designed to circumvent and evade community pressure, citizens can learn how to overcome power imbalances and improve efforts to build positive outcomes.

In her article, *A Ladder of Citizen Participation*, Arnstein (1969) simplified citizen engagement and empowerment into eight levels of participation that represent varying levels of effectiveness. From the bottom to the top of the ladder, these levels are manipulation, therapy, informing, consultation, placation, partnership, delegated power, and citizen control. As Arnstein explains, the bottom three levels are no more than meaningless exhibitions of participation that make no effort to effect change and in fact sometimes put the blame on the participant. The next two levels, consultation and placation, are the most misleading, because citizens believe that consultation or placation gives them some level of power to effect change, when the real intention is to create an illusion of influence while the real authority lies elsewhere. The top three rungs on the ladder –partnership, delegated power, and citizen control – evidence real, growing decision-making power. In order to advocate and negotiate for the building of a new

community garden or for a new governance system to build multiple gardens, it is useful to understand Arnstein's model of citizen participation.

With an understanding of this model in place, participants will be more aware of the risks of superficial participation and are more likely to command greater influence. Arnstein (1969) pointed out that while many individuals and groups often ask for less than they require or want in the hopes of getting some small portion of their needs met, it is more efficient to ask for, and expect to receive, all that is required. To do get what you ask for, groups need to be organized and prepared. Mougeot (2005) say's that

> Organization is key to being invited, heard, listened to, accounted for, supported and rewarded. Urban producer organizations must not only defend their own interests but also speak the urban language and show they can help other urban actors solve the problems. (p. 274)

There is a significant risk in not creating opportunities for community members to develop needed skills to lead community action. By believing in their fallibility, communities relinquish their decision-making power to professional experts and end up losing the ability for self-control and the opportunity to build skills and leadership (McKnight, 1995). Although citizens may lack needed skills or at least believe they lack these skills, they can begin to develop them once they engage in the process of community action. According to Yukl (2006),

> The performance of a group or organization is likely to be better if competent members are actively involved in solving problems and making decisions. Relevant skills must be developed to prepare people for leadership roles, new responsibilities and major change. (p. 239)

Community gardens can play an important role in developing these skills for emerging leaders. Hall (1996) tells us that by working collaboratively and collectively, "these residents develop skills, enabling them to take on a leadership role, organizing their

neighbours, to initiate and to maintain the project. For many, community greening is their first experience with civic participation" (p. 29).

According to Kretzmann and McKnight (1993), there are people in every community who have the capacity to contribute to community renewal. Developing opportunities for them to build leadership skills and creating an environment where they can share their leadership would be valuable contributions to building both local and UA capacity. Yukl (2006) wrote: "The heroic leader is expected to be wiser and more courageous than anyone else in the organization and to know everything that is happening in it. Leaders are seldom able to live up to these expectations" (p. 231). As an alternative to the heroic leader, Heifitz (as cited in Yukl, 2006) claimed that "an alternative perspective that is slowly gaining more adherents is to define leadership as a shared process of enhancing the capability of people to accomplish collective work effectively" (p. 231).

There are many ways to describe shared leadership. Some writers have described it as a partnership, a collective or distributed leadership, and even post-heroic leadership (Buckmaster, 2005; Elder, 2000; MacNeil & McClanahan, 2005). My preference is to frame this leadership model as "collaborative leadership," because it implies building a greater whole through joint effort. Taylor-Powel, Rossing, and Geran (1998) also focused on collaboration, because it

> Receives a universal recommendation as a mechanism for leveraging resources, dealing with scarcities, eliminating duplication, capitalizing on individual strengths, and building internal capacities. Collaboration also offers the possibility for increasing participation and ownership strengthened by the potential for synergy and greater impact. (p. xi)

It is the combined skills, abilities, and efforts of the individuals in the collaboration that benefit the group (Taylor-Powel et al., 1998, p. 85). Furthermore, collaborations are

excellent endeavours for initiating social activism and leveraging resources to effect changes to policies, systems, and communities (Taylor-Powel et al., 1998). For these reasons, collaborative efforts are an excellent mechanism for building community capacity among the urban agriculture advocates.

For community gardeners and other UA advocates, collaboration is an opportunity to join together with like-minded individuals and organizations, to initiate projects that advance sustainable greening. By sharing interests and concerns, like minded groups can engage each other and choose to work collaboratively to develop shared objectives (Taylor-Powel et al., 1998). Once these groups choose to work together, the process of establishing the needed structures and roles can begin and action plans to effect social change can be implemented (Taylor-Powel et al., 1998). As Taylor-Powel et al. pointed out, "changes are sought that achieve the collaborative vision and reflect collaborative principles" (p. 21).

However promising shared or collaborative leadership may be, it is easy for it to fail. "To be effective the collective leadership must be coordinated and complimentary, not working at cross purposes" (Yukl, 2006, p. 231). Elder (2000) added the contradictory note that collective leadership needs guidance from a leader or it will flounder. Ultimately, the collective process is a difficult path, because it morphs and changes over time. In order to assure its success and reach the shared goals, it is vital to attend to the changes and adapt and redirect the process as needed. As Yukl (2006) stated,

> Effective performance of a collective task requires considerable agreement about what to do and how to do it. Helping to build a consensus about these choices is especially important in newly formed groups and in organizations that have lost their way. (p. 238)

For this reason, it is essential to develop "effective and efficient procedures" and identify the various roles and structures of groups and subgroups (Taylor-Powel et al., 1998, p. 86).

Collaborative work has an advantage in that it keeps teams and groups connected. It is an important antithesis to the silo effect found in many large and disparate organizations. "The silo effect is a phenomenon occurring when systems components fail to communicate with each other ... the result is thwarted communication, potential redundancy, wasted energy, internal competition, clouded focus, and, obviously, frustration" (Perzyk, 2007, ¶ 1). Many organizations suffer from silos on different levels. In the extreme, large departments work at cross-purposes, and major goals and objectives of organizations fail. On a smaller scale, silos develop when co-workers fail to communicate effectively. According to Marcel Côté (2002), "mistrust and disrespect allow silos to flourish, hence, the silo effect. If managers do not trust another division, and if they do not share their objectives, they will not cooperate and silos will appear" (¶ 8).

It is important for the diverse organizations in the UA community to work cooperatively and collaboratively by developing good communication practices and skills, in order to avoid falling into the silo trap. "Knocking down those barriers can be an important contributor to value creation; and it will make way for sharing services, skills and systems across units and will encourage best practices" (Côté, 2002, ¶ 11).

While mistrust is at the crux of silos, trust is the building block for developing collaborative teams. "Trust lies at the heart of a functioning, cohesive team. Without it teamwork is all but impossible" (Lencioni, 2002, p. 195). Paying attention to trust among

UA community members, volunteers, leaders, teams, and organizations is important for building links and developing collaborative efforts that can increase the community's decision-making influence. "Effective performance of the collective task requires cooperation and mutual trust, which are more likely when people understand each other, appreciate diversity, and are able to confront and resolve differences in a constructive way" (Yukl, 2006, p. 238). Developing an effective trusting environment does not mean simply pacifying or appeasing forceful opinions among team members. In fact, it is in the quality of respectful challenges that collaboration can have the greatest impact. Bradford and Cohen (1998) described this process, where

> Everyone contributes his or her unique expertise, and everyone fights for what he or she believes to be best for the unit. These fights are spirited but not personal; they are motivated by differences over the best way to reach the common goals. Comradeship makes it possible for any team member to ask for and receive help. Team members hold each other accountable for performance and confront those who are not carrying their weight. (p. 127)

As Bradford and Cohen alluded, collaborations are not simple to administer; challenging team members with respect is at the core of successful collaboration.

Collaboration implies working in teams, but it can also imply working across various teams that have related interests or that can prosper by amalgamating diverging goals and interests. "A community can be built only by focusing on the strengths and capacities of the citizens and associations that call a neighborhood, community or country 'home'" (University of Missouri System and Lincoln University, University Outreach and Extension, 1999, ¶ 3). Groups that want to build their influence with governments, landowners, and other governing bodies benefit from breaking down silos by joining forces with others where mutual benefits facilitate each other's goals. Asset mapping is a valuable tool for identifying resources, leaders, and other groups or individuals that have

complementary objectives and link them to achieve a common objective (Kretzmann & McKnight, 1993). Each community boasts a unique combination of assets upon which to build its future. As Beaulieu (2002) pointed out, "every community – no matter how small, or how poor – has a rich pool of assets" (p. 5). A thorough map of those assets would begin with an inventory of the gifts, skills, and capabilities of the community's residents (Kretzmann & McKnight, 1993).

Asset mapping can be done in many ways (University of Missouri System and Lincoln University, University Outreach and Extension, 1999, ¶ 8). One approach is to systematically identify all potential community assets on a chart. The chart might list formal community groups such as churches, schools, and governments; informal groups such as garden clubs and food security groups; businesses; individuals; and so on (Kretzmann & McKnight, 1993). Kretzmann and McKnight suggested that by listing or charting resources "household by household, building by building, block by block, the capacity mapmakers will discover a vast and often surprising array of individual talents and productive skills, few of which are being mobilized for community-building purposes" (p. 5). An alternative format is for mapmakers to brainstorm assets using a mind-mapping technique, where resources are listed by titles or phrases, grouped by themes, and connected by lines and arrows (Buzan, 2005). These two methods, and many other variations on them, help community groups learn of existing resources that can support the development of new community gardens. Asset mapping can also help identify various ethnic and minority groups that can contribute or that should be considered for inclusion in community garden initiatives.

Lukasik (2003) stated that "a lack of community is a lack of inclusiveness and accommodation of minority groups and those who face socio-economic disadvantages" (p. 11). Removing barriers to community participation for these groups is not enough. Social inclusion is not about tolerating or putting up with minorities; it is about actively engaging these groups in community initiatives and taking their perspectives into account in developing projects (Saloojee, 2003). "Community involvement and engagement is an essential component of building inclusive communities and societies. These organizations become the eyes and ears of inclusion and they can monitor initiatives designed to eradicate racism and promote inclusion" (Saloojee, 2003, p. 17). By focusing and gathering information on the diverse resources of minorities and ethnic groups, mapmakers may find considerable leverage among these groups to further the UA cause.

All of the preceding theories and techniques for developing community capacity apply equally to a wide variety of social activist movements as they do to urban agriculture advocates. However, despite the good advice of many researchers, there remains the significant practical challenge of managing all these theories and putting them to use. For UA advocates, their meagre resources and funding and dispersed focus make it difficult to challenge the highly funded, heavily staffed, and well-researched groups that often control the agenda at public meetings and in the decision-making rooms of the power holders (Malakoff, 1995). Malakoff encapsulated this imbalance with his description of developers and community greeners. "While highway builders and developers can produce reams of data that demonstrates the social and economic benefits of their projects, greeners are often armed with little more than a heart warming anecdote about cabbages sprouting amidst urban squalor"(Malakoff, 1995, p. 17). For UA

advocates to have a strong voice that can stand up to highly organized agencies and experts, they must develop equally organized and influential agencies and experts.

The benefits of UA and community gardens have been clearly demonstrated in the previous section. Being knowledgeable about these benefits and incorporating them with the trigger model recommended by Lukasik (2003) can serve as a good foundation for engaging curious citizens. Once advocates have removed barriers to these citizens' participation by developing skills, insisting on real power influence, and generally making the potential for success possible, the engaged participants are likely to make a stronger commitment of their time and resources to the project. Freire, Kieffer, and Aronson (as cited in Lukasik, 2003) summed up the citizen engagement process as follows:

> If barriers are successfully overcome, then the process of securing long-term commitment to the changes being promoted to citizen engagement will begin to evolve. Much of this involves an individual adjusting [his/her] lifestyle so as to accommodate new behaviours … [first] there is correction – the often intense effort of working to right the wrong perceived through critical reflection. This is followed by a period of maturation during which an individual acclimatizes themselves to the new perspective and associated actions. Following maturation comes integration, the ideal endpoint of citizen engagement whereby an individual makes final adjustments to perceptions of the new norms that guide them and, in doing so, makes a permanent commitment to the changes in outlook and action pursued by their engagement. (p. 12)

Finally, assessing the community assets, embracing minorities and ethnic groups, building collaboration, and developing trust bring greater community capacity for volunteerism and leadership in community gardens and UA. It should also be added, as described in the benefits section of this paper, that community gardens in and of themselves are a tremendous asset for building community development and participation. Tapping into this asset and using the citizen engagement practices discussed in this review will create opportunities for engaging hesitant participants and

lead to successful initiatives that can build more community gardens and UA. With this community engagement possibility in mind, the next section of this paper reviews some useful governance practices for the consideration of activated citizens and supportive governments.

Topic Three: Community Garden Governance Practices

Municipalities across North America and throughout the world use many different governance models to manage community gardens and other forms of UA. This section of the literature review focuses on how some governance models on civically controlled land work and will help the City of Vancouver and its communities learn how to improve community gardening in Vancouver. In order to fully comprehend garden organizational structures, I explore two fundamental types of gardens and two fundamental types of garden governance. With clarity on the terminology, I then look at two models of civic governance for community gardens in Montreal and Seattle and how these two cities adapt to or manage the fundamentals of community garden organizational structures. I end by exploring a variety of civic governance measures used to secure land and otherwise support community garden developments.

In order to carry out a full analysis of community garden governance, it is essential to know exactly what a community garden is and what the commonly used terms are that define how they are governed. It is also important to make these distinctions in order to do a clear analysis of the potential governing functions of an umbrella organization for the City of Vancouver. Without clarity on these issues, the analysis would become cumbersome and convoluted. Before I attempt an explanation of these terms I must make it clear that the literature shows very little consistency or

standardization among gardeners, academics, and governments as to the meaning of the terms “allotment gardens” and “community gardens.” Where some people like to distinguish between the two, the delineation is not always so clear. To begin with, I identify some fundamental structures to which the terms apply.

Essentially, there are two fundamental types of gardens. Gardens are either communally or jointly tended (i.e., all gardeners contribute to the same plot), or have the land allotted into smaller plots that are often only a few feet by a few yards and are tended by individual gardeners (i.e., each gardener has his or her own plot). Equally, there are two fundamental ways to govern the gardens. One way is to have local or internal control where decisions are made by the gardeners themselves, and the other is to have decisions controlled by a central or external body such as a civic government or other managing group (Hall, 1996).

Hall (1996) coined the terms “local” and “central” to help clarify and distinguish the locus of governance control. However, the term central can be somewhat confusing as well. “Central” could mean the centre of the gardens as easily as it means the centre of an external organization. For extra clarity, I mix the terms “internal” with “local” and “external” with “central” in the following discussion.

Many of the garden groups that use the various systems mentioned above claim ownership to the term “community gardens.” Yet there is disagreement on whether the term applies to all gardens and what specific qualities make a community garden. For example, few would dispute that a communally run or a shared garden would be anything other than a “community garden.” In this style of garden, there are no individual plots, as

the gardens are jointly tended. These jointly run gardens are almost always governed locally or internally by the gardeners themselves.

The terminology becomes confusing when defining the various forms of allotment gardens. Many allotment-style gardens that are run through local or internal control claim they are truly "community gardens" as well. The rationale is that the activities of the gardeners to manage and govern themselves are processes that build community. Although they would not dispute the "community garden" moniker for a communal or jointly run garden, as mentioned above, many reject the notion that a central or externally controlled allotment system is a "community garden" (FoodShare Toronto, n.d; Jardin Orleans Community Gardens, 2008). For them, there is no community if the garden is controlled externally. In fact, many distinguish these gardens by calling them "allotment gardens" and reject the use of the term "allotment" for their own locally or internally governed model. To them, the difference is between building community and simply assigning plots where no community is built.

Where the terminology becomes more confusing is when central or externally controlled allotment gardens call themselves community gardens as well. This is clearly the case for many gardens such as in Seattle, Montreal, and other cities (Blondin, 1993; City of Montreal, 2006; City of Seattle, Department of Neighborhoods, 2008b; MacNair, 2002). For this reason and because there is some evidence that these types of gardens also build community, it becomes convoluted to try and define externally or centrally controlled allotments as something other than community gardens. Furthermore, the term "allotment" does not cleanly describe externally controlled allotments, because it can so easily be confused with internally controlled allotments.

It seems the question of definition for these terms will continue. However, following the lead of many writers, in this paper I use the term "community gardens" throughout to describe both internally and externally controlled allotment gardens, as well as jointly or communally tended gardens (Blondin, 1993; City of Montreal, 2006; City of Seattle, Department of Neighborhoods, 2008b; MacNair, 2002). Furthermore, where I use the term allotments, I refer to both internally and externally governed allotments. I do not use the term "allotments" in isolation to describe externally controlled allotments except where cited by other authors. As well, to distinguish between these gardens, I continue to use the terms local or internal and central or external.

When it comes to choosing which form of governance to use, every city makes a unique set of decisions for a vast array of reasons. As Hall (1996) pointed out, "the top-down and bottom-up approach to community gardens each have benefits and costs. A government agency can be crucial for initiating a community garden. However, local initiative is extremely important as well" (p. 40). The benefits of the centrally or externally controlled system can be a streamlined, well-organized, and well-financed program that produces ordered, efficiently maintained community gardens (Hall, 1996). However, locally controlled gardens have the advantage of developing a stronger community development component. According to Hall, "the plot allocation system of the Central agency by necessity undermines the community spirit present in locally controlled community gardens" (p. 40). Furthermore, "volunteer efforts make community gardens more cost-effective than those controlled by a central agency" (Hall, 1996, p.

40). This contrast between the benefits and limitation of these models is a recurrent tension among the advocates for each system.

However, the distinction between these different kinds of gardens is not always so straightforward. Often various systems are implemented simultaneously in the same city. To add even more confusion, there may be justification for using the term "allotment gardens" in some situations where larger plots are directly issued to gardeners without any community development intent, such as in some European countries (Drescher, 2001). As well, as mentioned earlier there are frequently many types of landowners and organizers, which complicate the definitions of these gardens.

Seattle

In Seattle, the civic government administers a centrally or externally controlled allotment style of garden system known as the P-Patch Program (City of Seattle, Department of Neighborhoods, 2008b; MacNair, 2002; Mikolajewski, 2002). Through the Seattle Department of Neighborhoods, five and a half full-time P-Patch Program staff have the responsibility of organizing 65 community gardens and annually assigning plots to gardeners. Each P-Patch staff member "negotiates the relationships between the agencies and departments that support and provide land for them [P-Patch gardens]. … They assist in negotiating land, or will help raise funds if purchase is necessary" (MacNair, 2002, p. 6). As well, in running the P-Patch Program, the staff collaborate with the non-profit P-Patch Trust.

The P-Patch Trust acts as a type of umbrella organization for the gardeners. The trust works in partnership with the city staff. It advocates on behalf of gardeners to develop and preserve gardens and acquire land for new gardens. It also provides some

small grants, tools, and plot fees for low-income residents, raises awareness of food security issues, and helps distribute food grown in the community gardens (P-Patch Trust, 2008).

All garden members are required to manage the upkeep and maintenance of their garden. Gardeners appoint a leadership team, and each gardener participates in upkeep. "The leadership group organizes work parties, watches over the site and coordinates with program staff and the P-Patch Trust" (City of Seattle, Department of Neighborhoods, 2008b, ¶ 3).

Montreal

"Montréal is known as a gardening Mecca thanks to our municipally run community gardening program, which ranks among the most expansive in North America" (Action Communiterre, 2007, ¶ 1). As a city, Montreal is "internationally renowned for its community gardens. With over 100 gardens, it is both numbers and the commitment of local government that distinguishes the approach in Montréal" (MacNair, 2002, p. 12). As with Seattle, Montreal also operates a centrally controlled allotment system where plots are reassigned annually.

The Department of Culture, Sports, Leisure and Social Development (DCSLSD), along with cooperation from two other civic departments, is responsible for the administration of community gardens (City of Montreal, 2006). The DCSLSD employs six animators who support the gardens by offering horticultural assistance, helping volunteer garden committees run the gardens, and ensuring that rules and procedures are followed (City of Montreal, 2006).

> The Department of Parks, Gardens and Green Spaces acquires land for community gardens and provides the equipment, materials and staff for garden

> maintenance. The Department of Public Works and the Environment manages solid waste and recycling collection and creates compost from the organic waste produced by the gardens. (MacNair, 2002, p. 13)

Although overall management of the gardens is controlled by the DCSLS, the running of the gardens at a local level is managed by garden committees (Blondin, 1993; City of Montreal, 2006; MacNair, 2002). These committees are made up of three local gardeners who are chosen annually by the gardeners themselves (Blondin, 1993; City of Montreal, 2006; MacNair, 2002). As MacNair (2002) pointed out, "the committees are responsible for liaising between the local government and the community gardens and making sure that the gardens follow the procedures and regulations of the government" (p. 13). Garden committees organize social activities and are responsible for the equipment and materials to garden. Some committees handle garden registration, following protocol developed with the DCSLSD. More than half of the committees have non-profit status. Non-profit status is encouraged, because it strengthens the gardens' autonomy, limits liability for the committee, and increases fundraising potential (City of Montreal, 2006; MacNair, 2002).

Land Tenure and Other Initiatives

Community gardens come in many styles and shapes and are operated on different types of land including private, corporate, leased institutional, schools, churches, and government land. However, community gardeners rely more heavily on civic government land than on any other form (Herbach, 1998). According to Kaethler (2006), "many large cities in North America are creatively using vacant or underutilized public land to increase the capacity of the local food system and urban agriculture" (p. 21); yet she went on to say that "high land values make access to vacant or underutilized land difficult" (p. 21). This struggle for access to land is the single greatest barrier to the development of

new community gardens (Dow, 2006). For this reason, I focus mostly on land tenure governance practices in this section. At the same time, I do not exclude consideration of other obstacles to building community gardens, such as securing finances, resources, and other essential components.

In order to overcome the land access challenge, cities incorporate a number of innovative approaches to secure land. To start with, a key component in securing land is having a clear inventory of what land is available. As Mougeot (2006) pointed out,

> Municipal governments that have mapped their citiy' open spaces are amazed by how much space sits idle at any given time … unused urban space is a wasted opportunity – an asset denied to a community's well-being and a brake on the city's development. (p. 64)

In an article published by the American Community Gardening Association, Schukoske (2000) recommended that civic governments legislate a staff person to be assigned to the compiling of the "inventory of vacant public lots and vacant private lots in low income neighborhoods" (p. 1) and furthermore that the information should be made "readily accessible to the public" (p. 1). Schukoske also recommended that "contracting with private landowners for lease of vacant lots" (p. 1) be authorized. With a land inventory in place, cities and communities can consider options for gaining land acquisition. These options include securing tenure on city land, obtaining leases on private land or raising funds for purchase, as they try to do in Seattle (City of Seattle, Department of Neighborhoods, 2008c).

According to Mougeot (2006), the use of temporary occupancy permits can help give residents access to land for community gardens. Once established, community gardens can seek out solutions for retaining land for the long term. In Montreal, where some gardens on civic property are fated for development, the city makes efforts to find a

new location for the garden (City of Montreal, 2006). As well, "when vacant lands are being utilized for gardens the city attempts to acquire them or, at minimum, negotiate long-term use" (MacNair, 2002, p. 14).

Dow (2006) suggested that land trusts would be a good way to secure land for community gardens. In Philadelphia, the Neighborhood Gardens Association (NGA) (2008) was created in 1986 through the Pennsylvania Horticultural Society, in order to help preserve gardens that were at risk. According to the NGA, "in most cases, the land was not owned by the gardeners but by the city or private (often tax delinquent) owners" (¶ 1). After years of gardening, many of these gardens have been threatened by new developments. Since its inception, the NGA has managed to gain title to and preserve 24 gardens. In Seattle, the P-Patch Trust performs a similar undertaking. "The P-Patch Trust is a nonprofit organization working to acquire, build, preserve and protect community gardens in Seattle's neighborhoods" (P-Patch Trust, 2008, ¶ 1). However, Librizzi (1999) claimed that

> The most far reaching method of open space protection is from the City of Chicago. The city council passed an intergovernmental agreement that created an entity called NeighborsSpace that is funded by municipal funds and can raise private funds to purchase properties. The city also transfers properties to NeighborsSpace for one dollar for a permanent protection as open space. (p. 4)

Aside from land tenure, there are other positive ways to support community garden development. Some civic governments make significant contributions to fostering community gardens through policy and zoning by-laws. The City of Seattle, for example, encourages the strengthening of ordinances to "preserve and protect community gardening" (MacNair, 2002, p. 7). In 1992, Seattle City Council passed resolution 28610, the city's first policy to formally support the P-Patch community garden program. It recommended that the P-Patch Program be included in the city's comprehensive plan and

in the evaluation of city-owned surplus property, and that the city fund the management of the program (MacNair, 2002, p. 7). MacNair (2002) reported that in 1994, a further plan was put into place for the city of Seattle to create "one dedicated community garden for each 2,500 households" (p. 7). The strengthening of ordinances and setting of targets have helped Seattle become a leader in community garden development.

Aligning city zoning by-laws with community gardens can also support new developments. As Librizzi (1999) pointed out, "having a specific zoning category for community gardens is another method for ensuring long-term protection of community gardens" (p. 3). For example, in order to preserve gardens in Montreal's urban areas, "two thirds of the gardens have been re-zoned as parkland" (MacNair, 2002, p. 14). In another case, "the City of Boston has special zoning districts that include community gardens in the types of open spaces" (Librizzi, 1999, p. 3). According to Enns, Rose, de Vries, and Hayes (2008), the city of Saanich used a broad approach by amending

> Its zoning bylaw to allow community gardens as a permitted land use in all zones, except natural parks or environmental conservation areas – something few municipalities in B.C. have done. … [They] also included incentives in the form of bonuses to create additional community gardens for developers seeking to increase density – and potential profits – on part of the site. (p. 8)

Another option is to reduce or eliminate property taxes on unused land, to entice property owners to make land available to community gardens for fixed periods of time (Mougeot, 2006, p. 67). This is a practice used in Montreal, where "the city offers tax-free status on vacant land for the duration of a five-year lease to community gardens" (MacNair, 2002, p. 14). All of these incentives and by-laws provide significant encouragement for the building of new community gardens.

City planners also play a significant role in the development of community gardens. "Urban agriculture, although often overlooked in policy development and by

city planners, is vital to enhance the health and well-being of its citizens" (Bentley, as cited in Kaethler, 2006, p. 16). While community gardens can be legitimized through various zoning practices, it is important that city planners take a substantial role in developing zoning legislation and in promoting community gardens in general (Hall, 1996). Unfortunately, as van den Berg (2000) pointed out, "to urban planners, agricultural land around or between built-up areas is a kind of 'reserve' to be taken up whenever needed" (¶ 4). But Hall (1996) said that the role of planners should be to act as advocates for community gardens and take steps to link community groups interested in building gardens and civic policy makers.

As has been pointed out earlier in this paper, silos between government departments and a disconnect with community groups can also be an impediment to developing community gardens. As an innovative attempt to overcome this impediment, the City of Seattle (1992) passed, as part of resolution 28610, that it

> Will promote inter-agency and intergovernmental cooperation among agencies such as the Parks Department, the Engineering Department, the Housing Authority, the School District Metro, the Port Authority, the Water Department, City Light, and the Department of Transportation to expand opportunities for community gardening. (¶ 8)

Cooperation and collaboration among the various stakeholders becomes an asset that supports mutually beneficial practices and policies that civic authorities can adopt (Mougeot, 2006). Cosgrove (1998) clarified how this cooperation and collaboration can be done in his description of the *Garden City Report* in Toronto that was passed to

> Align the existing specialized departmental budgets to help local groups establish community gardens. For example, city property can identify land ownership, public health could consult on soil testing, and public works advice on water connection. Parks and Recreation was to facilitate. (¶ 57)

Mougeot (2006) further explained that "by drawing on expertise that exists within their own departments, among resident institutions and engaged citizens, municipal authorities can draft policies to address multiple challenges in a comprehensive and equitable way" (p. 70).

This literature review has presented only a few practices that civic governments around North America are actively using or could use to promote community gardens. City administrations that act collaboratively and with conviction can use these methods and other practices to promote constructive changes that will help them achieve their urban agriculture goals.

CHAPTER 3: CONDUCT OF ACTION RESEARCH PROJECT

Research Approach

In order to answer my research question, "What intermediary socio-political functions are necessary to facilitate and expedite the building of new community gardens in the City of Vancouver," I solicited considerable collaboration and participation from a diverse stakeholder group through the practice of action research. Action research is an emergent process where change is attempted through a cooperative cycle of inquiry to solve a problem (Stringer, 2007, p. 9). In this process, the "researcher and client engage in collaborative cycles of planning, taking action and evaluating" (Coghlan & Brannick, 2005, p. 14).

The advantage of action research is that it can combine methodical research methods with the practical understanding of an organization. Shani and Pasmore (as cited in Coghlan & Brannick, 2005) said that action research is "an emergent process in which applied behavioural science knowledge is integrated with existing organizational knowledge and applied to solve real organizational problems" (p. 3). Action research methods allow the researcher to include practical organizational knowledge while engaging stakeholders in creative ways to both elicit and co-create changes with the target organization.

Positivistic research attempts to use a realist's detached and strictly mathematical or quantitative method to define precise and definitive relationships for measuring and testing phenomenon (Palys & Atchison, 2008). Positivistic research methods make important contributions in some forms of research, but have limitations when working with evolving social complexities such as people's feelings, beliefs, and values.

According to Stringer (2007), positivistic scientific research has not provided the benefits for social sciences that it has for the physical sciences (p. 65). “Human beings, it seems, are hard to predict and difficult to control” (Stringer, 2007, p. 192). As a researcher, I considered that action research, which is primarily based in qualitative methods, was better suited to deal with the complexities of feelings and values involved in the urban agriculture community.

Quantitative and qualitative research methods offer contrasting approaches to collecting and analyzing data. Both have advantages and limitations. Quantitative research deals with the collecting of precise statistics, facts, and numbers as data, while qualitative research looks at the collection of subjective interpretive thoughts and perceptions as data. As Palys and Atchison (2008) pointed out, “being a positivist typically implies a quantitative approach, but engaging in quantitative research no longer means you are necessarily a positivist” (p. 4). Comparing the data from quantitative and qualitative collection methods can help action researchers build a clearer understanding of what is going on. Although both qualitative and quantitative methods contributed to this action research project, action research primarily takes a qualitative approach (Stringer, 2007, p. 19) and therefore was featured prominently in this research.

Social interactions are fraught with continuously shifting variables. The UA community in Vancouver is just as vulnerable to these shifting variables as any community. Qualitative research methods are concerned with understanding and making sense of these complex social interactions, relationships, and human emotions, seeking to go beyond the numbers and find a way to capture the meaning and implication of multilayered human interaction and thought as a whole. To do this, qualitative

approaches utilize a different set of devices from quantitative methods and thereby rely heavily on the researcher's ability to reflect and interpret complex emotions and human thought processes. Palys and Atchison (2008) stated that qualitative researchers should "empathize with their [subjects'] concerns, perhaps even be one of them, if you hope to truly understand" (p. 10). This ability to work intimately with the subject is one aspect that distinguishes qualitative research from quantitative research.

The subjective characteristics of qualitative data and action research are not easily verifiable. Where traditional positivistic research begins with a narrowly defined topic and sets out to prove it, action research begins with a broad topic or question and looks to narrow down the answer through the research process (Stringer, 2007). Building rigour and credibility into the research requires careful consideration. Researchers must strike a difficult balance between their own emotions, thought processes, and biases, while challenging the assumptions of the meaning they ascribe to their analysis (Glesne, 2006). Glesne also suggested that the use of triangulation in data collection helps to build the trustworthiness and credibility of the data. Triangulation is a process of comparing data of a similar nature that are collected through multiple sources to verify that results are similar (Stringer, 2007). Incorporating these and other methods substantially helped build credibility in this research.

Action research is a cyclical process, with several stages in each cycle. These stages are described in a variety of ways by different writers. Stringer (2007), for example, described the action research cycle as 'look, think, and act', while he mentioned Kemmis and McTaggart's version as "plan, act, observe, and reflect" (p. 8). On the other hand, Coghlan and Brannick (2005) described their four-stage version as "diagnosing,

planning action, taking action and evaluating" (p. 22). However researchers choose to describe action research, the objective is to follow through a series of research cycles. This project concludes one complete cycle of action research. The cycle began by way of an inquiry with the gardening community, to diagnose the problems they would like addressed and come up with a research question. Once again, with community help I planned the action needed to answer the research question. I then carried out the plan by collecting data from community members. Finally, with more help from community members, I evaluated the data and made recommendations for change and further action research opportunities.

Involving community members in a process that could lead to policy decisions that directly affect them makes good sense. As Stringer (2007) put it, action research

> Is based on the assumption that knowledge inherent in people's everyday, taken for granted lives has as much validity and utility as knowledge linked to the concepts and theories of the academic disciplines or bureaucratic policies and procedures. The intent is to concede the limitations of expert knowledge and to acknowledge the competence, experience, understanding, and wisdom of ordinary people. Action research therefore seeks to give voice to people who have previously been silent research subjects. (p. 170)

Ultimately, the gardening community understands the garden community best. It is through their participation that this research gains its validity and relevance.

This project involved diverse participants from a variety of stakeholders in the UA community. Although there are often shared values and goals among these stakeholders, many groups and individuals approach UA from very divergent perspectives. Identifying and realizing common goals with such diverse and potentially contrary groups required an appreciation of each participant's perspective. According to Stringer (2007), action research "links groups that potentially are in conflict so that they may attain viable, sustainable, and effective solutions to problems" (p. 21). Thus,

including participants in each phase of the process helped build trust and reinforce that participants were contributing in a real way. In this way, the community gardening leaders or stakeholders became partners in the research process and helped direct each stage of the research planning, data collection, data analysis, and recommendations.

Each phase of the project uncovered new questions, dug deeper, and exposed various layers of meaning in and insight into the problems and objectives of the research. The stakeholders along with me as the researcher experienced this research cycle together. The intent was to have the cyclical nature of action research build on recurring successes and thereby increase buy-in and collaboration in the process and ultimately lead to the implementation of a common goal, in this case increased urban agriculture and community gardens. The result was a continuous and collaborative cycle of learning and insight for me and for the community.

Action research is designed to bring participants together and help build a unified understanding of and solution to a common problem. From both a leadership and a community-building perspective, action research is a forward-thinking and progressive approach to research. As Stringer (2007) so clearly pointed out, the answers to many social questions likely lie with the individuals who are most intimate with the problems on a day-to-day basis. As the primary researcher in this project, I was excited by the process of bringing this research methodology to the UA community in Vancouver.

Project Participants

A variety of individuals and groups have an interest and stake in this research. Stringer (2007) identified purposeful sampling as a process that

> Consciously selects people on the basis of a particular set of attributes. In action research, that major attribute is the extent to which a group or individual is affected by or has an effect on the problem or issue of interest. (p. 43)

Therefore, for the purposes of this research, I divided the participants into three stakeholder groups:

1. Garden organizers who have carried through every stage and building requirement, from administrative functions, right up to the physical building and maintaining of existing gardens
2. Community advocates, organizers, and leaders from a variety of local groups interested in the increase of community gardening and UA in general
3. Leaders and organizers who have acted as the required non-profit sponsors for new community gardens.

These three groups were identified because they all have considerable advanced knowledge of the intricacies involved in local UA governance practices and problems. They also brought a variety of contrasting and useful perspectives, while providing passion for the research topic.

Invitations to participate in these consultations were drawn from a core list of stakeholders arrived at through discussions with the project sponsor, personal knowledge of the stakeholders, and the systems analysis. However, as Stringer (2007) pointed out, "members of groups that do not have voices in the proceedings will likely fail to invest themselves in the research process and may then undermine any resulting activity" (p. 44). Therefore, it was important to continually identify key players as consultations and data collection progressed, and great care was taken to build trust and buy-in by including key people at all levels. Specific individuals from within the stakeholder groups were

identified and invited for their specialized expertise in particular areas of interest, range of community representation, and general knowledge of the subject.

In order to gain a deeper understanding of the complexities of community garden governance practices in Vancouver, I conducted a phase of consultation prior to formal data collection. All three major stakeholder groups were engaged in this initial phase of consultations. In all, I consulted with six stakeholders. These consultations assisted me in refining and defining the design of the data collection.

Following these consultations, as part of the data collection phase, I conducted interviews and a focus group. I conducted six interviews from a cross-section of the three shareholder groups. The focus group consisted of three participants. In all, there were nine participants in this data collection phase. The final phase of the research was the data analysis. Continuing with the community inclusion theme, I invited four community members to help analyze and make recommendations in this phase.

The project sponsor, Devorah Kahn, is the food policy coordinator with the Social Policy unit of the City of Vancouver. “The role of the Project Sponsor is to represent the interest of the ‘client’ or ‘customer’” (Royal Roads University, 2008, p. 12). Although she is a civic employee, she is not directly responsible for the gardening approval process but assists the process. Her role in this community and social development research project was to facilitate the project on behalf of the citizens while representing the city and its guidelines and policies. The sponsor worked directly with me to identify and clarify the problem and the opportunity to make effective changes, while representing alternative perspectives and complementary stakes in the project.

Academic guidance and supervision were provided by the faculty project supervisor, Michael Keller. The supervisor reviewed and approved the project proposal, the assessment plan, and the request for an ethical review. He guided me in the development and completion of the project, and reviewed and assessed the final report and learning outcomes.

The Major Project Supervisory Committee consisted of a chair filled by Director of Leadership Studies Gerry Nixon, the faculty project supervisor, and the project sponsor. The committee members offered guidance and feedback on the project, aided in the development of ethical expectations, and reviewed the final submission to ensure that it met the university requirements (Royal Roads University, 2008, p. 12).

Research Methods

In constructing a preliminary picture of the systems and questions at hand, Stringer (2007) recommended that researchers develop an understanding of the setting's social dynamics by identifying "stakeholder groups, key people, the nature of the community, the purposes and organizational structure of relevant institutions and agencies, and the quality of relationships between and among individuals and groups" (p. 51). For this reason, I engaged community leaders and advocates in a consultation phase. The consultations consisted of a series of open-ended conversations that were designed to dig into the issues and relationships within the community garden community. Participants contributed their perspectives and knowledge, which helped in the development and refining of the data collection instruments. This was a collaborative process where questions, responses, and insights prompted further exploration by me and the participants.

The design consultants were presented with a draft copy of the research questionnaire. They were asked a series of questions as a starting point for discussion on the questionnaire design, clarity, and order of questions, as well as if they thought the question went to the heart of the problem, if any questions or essential areas were missing, and so on (see Appendix A). This process gave me the opportunity to improve the questionnaire by adding, deleting, or changing the wording of questions, changing the order of questions, and adding explanatory preambles. As well, Stringer (2007) warned that "when we frame research questions for interviews for questionnaires, for instance, we need to be very careful that we don't inadvertently incorporate our own views or ideas" (p. 72). Because I have considerable knowledge and opinions of UA, I attempted to design the questions with as little bias as possible. Working with the consultants, I was able to confirm that the questions reflected the concerns and interests of the stakeholders and consultants, rather than my personal bias.

The data-gathering phase included six one-on-one interviews and one focus group. Both the interviews and the focus group used a combination of quantitative and qualitative questions. The quantitative questions were the same for the interviews and the focus group. Six qualitative questions plus sub-questions for the focus group were derived from 11 interview questions; this mirroring of questions helped facilitate a triangulation of the data. The interview questions are listed in Appendix B, and the focus group questions are given in Appendix C.

I chose to restrict the number of participants and data collection methods in order to encourage a more meaningful and focused investigation, rather than take a cursory sample from many participants. As Palys and Atchison (2008) pointed out, "face-to-face

interviews tend to be longer and more detailed, [and] tend to seek greater depth of response" (p. 158). As well, the interview method also gives the facilitator the opportunity to develop a close rapport with the participant (Glesne, 2006, p. 105). Hence, this approach gave me the opportunity to encourage the interviewee to probe deeper into issues and thereby produced insightful results.

The focus group was organized in three parts; these parts can be seen in Appendix C. In Part One, each focus group participant filled out a quantitative questionnaire prior to coming to the session.

In the first segment of Part Two, in advance of the focus group session, participants were given three qualitative questions and asked to write out several succinct answers to each of the questions. At the focus group session, the participants were given an opportunity to present each of their prepared answers and explain his or her reasoning. The other participants were then given an opportunity to respond to and discuss that answer. Once the discussion of each answer was exhausted, another participant presented one of his or her answers. This process continued until all the answers were exhausted for each question.

During Part Three of the focus group, participants had a general discussion on three umbrella models. The advantages of each model were discussed first, followed by a discussion of the disadvantages. During these discussions, strategic and collaborative conversations were encouraged, to make sense of the issues and topics. It was in these conversations that the collaboration and insight were most potent and evident. As this process unfolded, the conversations and interactions were monitored and "highlights" recorded on a flipchart.

As the primary action researcher, I facilitated and guided the interviews and the focus group. Stringer (2007) claimed that "research facilitators should take a neutral stance throughout these activities and neither affirm or dispute, verbally or nonverbally, the information that emerges" (p. 72). My role was to ask questions and probe more deeply into the discussions, letting the participants reveal the data without my undue influence. Although I was friendly and encouraging, I aimed for a neutral presentation.

In order to give my full attention to the participants, these sessions were recorded through an audio recording device. As Palys and Atchison (2008) stated, "this approach leaves the interviewer to pay attention to the interviewee" (p. 158). Following the advice of Stringer (2007, p. 73), these recordings were kept confidential and in my personal possession. They were transcribed as soon as possible. Participant names were removed from the transcriptions and replaced with codes; no other personally identifying information remained.

Once the data collection was finished, I invited four more consultants to participate in a review and analysis of the data. The consultants for this phase were selected for their knowledge, insight, wisdom, and diversity of community representation. They participated one at a time to assist me in organizing and identifying the key themes, concerns, and potential solutions suggested by the data. I also sought advice on recommendations and concluding thoughts.

Study Conduct

One full cycle of action research consisting of "diagnosing, planning action, taking action and evaluating" (Coghlan & Brannick, 2005, p. 22) was completed in this research project. It began with a diagnosis of the issues surrounding community gardens

and UA, which led to the articulation of the research question. This first stage was followed by the development of an action plan. During the planning stage, I conducted consultations to help define the proposed questionnaire for the interviews. With the interview questions finalized (See Appendix B), I carried out the plan by conducting six face-to-face interviews and one focus group. After the data from these sessions were transcribed and initial coding and analysis was prepared, four participants were invited to review and consult on the raw data and initial analysis. These consultations led to the formation of the conclusions and an ongoing evaluation of the process.

The initial consultations and the interviews took place wherever the participant felt comfortable – in private homes, in community gardens, in private offices, and at cafés. The focus group was conducted in a private meeting room at a neighbourhood house in Vancouver. Analysis consultations were held in my home office, because the coded data were not transportable to other locations.

Participants in the consultations were e-mailed a copy of the proposed interview questionnaire for their review, as well as a list of questions to consider in reviewing it (see Appendix A). During the consultations, each question for the interview questionnaire was discussed according to the criteria mentioned. This was a back-and-forth discussion of the pros and cons of each question, the validity for its inclusion, and any potential for research bias. As well, the sequencing of questions and the need for any preamble information prior to a question were explored. With the permission of the consultants, the discussions were recorded on an audio device and notes were made on a copy of the draft questionnaire. At the completion of each consultation, alterations were made to the interview questionnaire, and changes were discussed in the subsequent consultations.

At the conclusion of all the consultations, a new draft interview questionnaire was sent by e-mail to the six design consultants, with an explanation that I would be reviewing the audiotapes before making final adjustments, but that any final feedback prior to this process would be helpful. I received one inquiry about a potential question alteration that I had not made. My explanation was that although the alteration was useful information, it was veering slightly from the research focus. This explanation was accepted by the consultant. As well, a number of changes discussed with this project's academic supervisor were made primarily in consideration of the order of questions. Finally, after reviewing the audiotapes, I made only minor adjustments to the interview questionnaire (see Appendix B).

Following these consultations, six face-to-face interviews were conducted using the questions developed in the planning stage. During these interviews, I read through the introduction of terms used and the preamble to questions. I clarified and discussed any uncertainty prior to having the interviewees answer questions. While they responded, I restricted my introjections except to encourage elaboration on issues and to paraphrase my understanding from time to time. These interviews probed deeply into the research question and produced very rich data. Explanations often involved lengthy accounts of events, multifaceted rationalizations, and scores of detail and insight. The interviews varied in length from half an hour to one and a half hours, producing seven and a half hours of recordings and over 120 pages of double-spaced transcripts. As the analysis of these data progressed, I created a pre-coded synopsis of the key themes and topics of each interview. I sent each interviewee a copy of this synopsis and invited him or her to verify or clarify the content of the synopsis. This process helped confirm that I was accurate in

my interpretation of the interviewee's answers and helped to minimize any bias in my interpretation and analysis.

Questions for the focus group were derived from the interview questionnaire and are listed in Appendix C. The group was facilitated by me and an assistant. I facilitated the discussion, while the assistant summed up topic headings and key points on flipcharts. As the facilitator, I was careful to explain the process of each section of the session and made sure that each participant had the opportunity to contribute to each new topic. In Part One, the questions were quantitative in nature and were filled out individually prior to the session without any group discussion. Part Two, consisted of three questions. Participants wrote out short answers for each question and presented their answers, giving an explanation of their rationale. Each participant then responded to the answer with his or her observations and viewpoint. Part three was similar. The participants offered their perspective on three models of an umbrella organization, except there was no preparation time for developing preconceived answers.

These discussions became collaborations among the participants, who became passionately engaged. It was a challenge as the facilitator to not abandon my role and join wholeheartedly in the discussion. Because of time constraints and the necessity of completing the agenda, it was difficult but crucial to intercede from time to time in order to keep to the schedule. At one point, I tried to move the discussion to the next topic, and one participant responded, "But the discussion is so great," which the other participants confirmed. At another point, a participant stated that

> I think that this has really made it clear just how amazing it is to bring together the different community leaders in gardening. … We would never have sat together and learned from each other, so that kind of contributes to the idea of

> whatever this model is going to look like, it has to have some way of bringing people together.

These types of positive responses regarding the content of the discussion were consistently shared throughout the session. At the conclusion of the session, I drew attention to the themes and topics recorded on the flipcharts and asked if there were any missing or misleading topics or themes. All the participants indicated that the flipcharts were complete and accurate. In all, the focus group produced 40 double-spaced pages of exceptionally insightful data.

It would not have been practical to ask consultants to look at all the raw data and ask them to make any sense of the data for me. With more than 160 pages of data, it took a considerable amount of time to codify and sort the data. After removing any references that could identify participants and bringing some structure and shape to the data, I invited several community stakeholders back to review the data and help me make sense of them. The consultants examined the raw data and the systems I used to code and sort the data into manageable chunks. They could then follow the logic I used to make sense of the data and how I began drawing conclusions from the data. Through this process, the consultants were able to verify the data I was coding, identify patterns I did not recognize, question my assumptions, and collaborate with me in analyzing the material. This exercise was most useful. It helped me validate much of the work I had done to that point, but it also extended my thinking so I could see new patterns and ways to interpret that information. This was a very exciting process for me, as it replicated a collaborative approach to analyzing the data, where the results of two or more people are vastly improved over individual efforts.

Data Analysis

When I was ready to begin the research analysis, the data from the interview and focus group transcripts along with all of my notes and reflections were enormous. Glesne (2006) suggested the data analysis process can be overwhelming. Knowing where to start was a challenge. According to Glesne, "within the sociological tradition, the most widely used means of data analysis is thematic analysis, a process that involves coding and then segregating the data by codes into data clumps for further analysis description" (p. 147). The analysis procedure is a process of examining the data for patterns and themes, and then coding and sorting these themes into categories (Glesne, 2006; Palys & Atchison, 2008; Stringer, 2007).

Using this approach to analysis, I gathered all the data from the interviews and the focus group and colour-coded them according to themes or units of meaning. All the colour-coded responses to each question were combined under the heading of each question. For example, all the responses to question 3 from every interview and the focus group were combined, all the responses from question 4 were combined, and so on. As Palys and Atchison (2008) pointed out, "despite the fact that we're talking about qualitative data analysis here, there's still a fundamental role to be played by counting" (p. 311). For this reason, and in order to count statement contributions later on, each selection or statement was coded, to identify the particular interviewee who made it. The focus group contributions were similarly coded.

Once all the data were coded into these themes and listed underneath their respective question, the entire database was colour printed. The amalgamated and colour-coded data from each question were posted on a wall alongside their respective question.

In the end, the data from all 13 questions and sub-questions were colour coded and posted on two paper-covered walls. Some significant text was highlighted or underlined for impact and easy recognition.

Each colour-coded theme or topic was assigned a heading that permitted easy grouping the grouping of ideas. This heading was written next to the colour-coded group on the wall. Lines were drawn to connect individual statements to the themes. More lines were then drawn to link similar answers from one question to answers from other questions. Some lines or headings were colour coded.

Imagine, if you will, two walls filled with more than 100 pages of typed data. The text was grouped by question numbered from 1 to 13 and further grouped by colour according to related themes or answers. The colour-coded groupings are each assigned a coded theme, and lines are dawn from the code to link to each original related statement. There are more than 130 coded themes. Lines are drawn to link similar or related themes. The walls look like a complex web of colour-coded intersecting lines and headings overlaying a background of highlighted and underlined colour-coded texts. Making sense of this intricate image is very complex.

To simplify the analysis, the 130 themes were transferred onto another poster-size sheet that was roughly 35 inches by 35 inches. The colour-coded headings were again organized by the questions they originated from. New lines were drawn to link relationships between themes. This time, the headings were arranged so they connected in a simple and more logical way. Nonetheless, this new chart was still quite complex to understand.

At this point, however, I was able to refine the groupings and begin to draw a more comprehensible chart of the systems and relationships that were evolving from the data. This new chart was barely more than two pages. It was able to link most of the key concepts in a logical and systemic sequence that most people could make sense of.

To help make sense of the data, Glesne (2006) recommended the "enlistment of others to provide feedback" (p. 167). It was at this point that I invited consultants from the community to look at the wall of data and the refining process. The consultants were able to verify the general direction and logic I was drawing out from the data and helped eliminate some concerns around my potential bias. They were also able to help me see parts of the data in new and different ways, and they brought attention to statements that I had either missed or underestimated the importance of.

This process of analysis was an iterative one, going back and forth over the data many times. As Glesne (2006) pointed out, "coding is a progressive process of sorting and defining and defining and sorting those scraps of collected data" (p. 152). Although this exercise may reflect a variety of common practices and analysis techniques, the process for each project is entirely idiosyncratic to the investigator (Glesne, 2006), as was my experience. In time, this idiosyncratic and intuitive process leads to clarity. Stringer (2007) stated that "as data are analyzed, categories might emerge that enable a large number of activities to be included under a relatively small number of headings" (p. 101). Sooner or later, these categories lead to conclusions. Glesne's (2006) statement confirmed my experience that "eventually, you can place the various data clumps into a meaningful sequence that contributes to the chapters or sections of your manuscript" (p.

152). With this stage completed, I was able to once again refine the final chart and begin to draw conclusions, suggest outcomes, and generally build a story around the data.

Ethical Considerations

In consideration of ethical and moral obligations, researchers must strive to be unerringly honest and objective. Despite their best efforts, they can face choices that overwhelm their objectivity. Difficult choices between what is right and what is right (Badaracco, 1998), rather than simple black and white choices, challenge researchers most. For example, is it right to present research that benefits humanity, or is it right to suppress such research in the interest of someone's privacy? As Badaracco (1998) pointed out, both decisions are right, but researchers need to assess which decision may be more or less right. Addressing these complex questions requires objective oversight and guidance.

This project followed the formal guidance provided by Royal Roads University (RRU), as well as personal plans for cautionary ethical measures. It adhered to the RRU *Research Ethics Policy* (2007b,) and the RRU *Policy on Integrity and Misconduct in Research and Scholarship* (2007a). The RRU Research Ethics Board also reviewed this proposal and approved it. Furthermore, it complied with the guiding ethical principles of the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada [Tri-Council], 1998), as reflected in the requirements of the RRU *Research Ethics Policy* (2007b). These principles are (1) Respect for Human Dignity, (2) Respect for Free and Informed Consent, (3) Respect for Vulnerable Persons, (4) Respect for Privacy and

Confidentiality, (5) Respect for Justice and Inclusiveness, (6) Balancing Harms and Benefits, (7) Minimizing Harm, and (8) Maximizing Benefits The following paragraphs address these principles.

This research did not subject participants to any humiliating, degrading, or undignified processes. Therefore, it was of high importance during the project to design research that maintained the dignity and respect of research participants. The interviews were designed to maintain participants' integrity and to support them in feeling proud and enriched by the processes and results of the research.

In consideration of free and informed consent, participation in this research was voluntary. To the best of my ability, I identified any potential benefits, harms, expected level of commitment, and risks to the participant prior to asking for consent.

Because of the nature of this investigation process, there was no need for a systematic involvement of incompetent or vulnerable individuals in this research. Although community gardens should be developed to be inclusive of all vulnerable and marginalized individuals, the participants in this research were primarily highly informed, knowledgeable, and competent individuals and leaders in the UA community.

I maintained the confidentiality of all participants. According to Palys and Atchison (2008), the Wigmore criteria are a "set of four criteria that the Supreme Court of Canada has stated it will use to adjudicate whether a privilege should be recognized" (p. 78). As part of the participant agreement, a confidentiality section was included, in order to establish research participant confidentiality privilege as laid out in the Wigmore criteria. As well, this project dealt with publicly visible issues, and some participants could have been vulnerable to public scrutiny.

I did not exclude any individual from this research because of belief systems, physical attributes, cultural ties, or any other affiliations.

Balancing the harm and benefit of this research was essential. As Palys and Atchison (2008) pointed out, "any over-inflated sense of our own importance and the worth of our research may work to the disadvantage of research participants" (p. 87). For that reason, I sought advice and guidance from the participants, the consultants, the academic advisors, and the project sponsor on the perceived value of the research.

I took care to minimize all unnecessary harm to participants in this research. I did this by identifying any risks, consulting with the research participants, and developing alternative approaches where risks were unnecessary or added little to the research. For the most part, any risks stemmed from potential identification of a participant's comments that might negatively cause a community member or civic administrator to act with bias toward the participant.

Many tools are available to help researchers through the ethical labyrinth they experience during research, yet novice researchers need extra assistance. Palys and Atchison (2008) stated: "The less experience you have … the more detailed your consideration should be and the more obliged you are to seek the advice and council of trusted colleagues" (p. 85). As a new researcher, I needed not to isolate myself with these most difficult decisions, but to connect with outside support and guidance. Where required, I reached out for guidance from individuals who had skills and knowledge in specialized areas and could be supportive, such as the RRU ethics advisor. Although third-party overview is important, self-reflection is another valuable tool for identifying

personal biases, conflict, and power imbalances. As such, journaling was an essential tool for maintaining my self-awareness and reflection in this process.

Personal integrity and ethical action are necessary for credible research. Ultimately, even in the face of conflict, it is critical to treat participants with dignity and respect. Furthermore, researchers must not only be ethical, but also give the appearance of ethical practice and treatment, to maintain confidence and respect for the research. In order to present credible and principled research, I strove to be in a continual process of ethical evaluation in the action research process.

CHAPTER 4: ACTION RESEARCH PROJECT RESULTS AND CONCLUSIONS

To help readers better understand the research results, I have divided this chapter into three sections. First, in the Study Findings section, I discuss eight broad themes that emerged from the data. Second, in the Study Conclusions section, I compare the research results with the literature and draw conclusions about what the data are telling us and what conclusions might lead to. Third, in the Scope and Limitations of the Research section, I discuss the limits to the usefulness of the data results and conclusions.

Study Findings

The research question for this project is "What intermediary socio-political functions can an umbrella organization perform to facilitate and expedite the building of new community gardens in the City of Vancouver, BC?" The data collected to answer this question were roughly divided into eight broad themes: (1) participant demographics; (2) effective processes in current practices; (3) advantages of more gardens; (4) barriers and solutions to building community gardens; (5) advantages and disadvantages of three theoretical umbrella models; (6) building of community capacity, leadership, and allies; (7) the preferred umbrella model; and (8) other umbrella activities. This section of the chapter reveals the study findings in these eight themes.

Participant Demographics

The participants in this project represented a significant cross-section of experience and diverse knowledge of Vancouver's gardening and UA community. The project engaged nine members from this community to participate in interviews and one focus group. Together, the participants had 102 years of cumulative experience. All but one participant had undertaken advocacy for community gardens, and every participant

had helped maintain some form of community garden. They represented participation in 37 community gardens, 21 of which were built on non-city land. Four participants were new (within a year) to starting or attempting to start a community garden on city land, and two of these new participants had not managed to build a community garden on city land, although they had hoped to do so. Finally, six participants had been involved in the sponsorship of other gardens on city land.

Effective Processes in Current Practices

When asked what processes work well when building new gardens in Vancouver, participants identified working across small, organized community groups to share information, obtain advocacy and advice, and build new community groups as the most recognized theme. Public interest in urban agriculture was also noted, with comments such as "exploding" and "extraordinary" amount of interest, and one participant calling it a "perfect storm." There was also a nod to the Vancouver Park Board for "at least [having] a template in place," and finally, the city's resolution to remove water charges from the gardens was seen as a positive move.

Advantages of More Gardens

When participants discussed the advantages of building more community gardens, almost all of them viewed community development as a major benefit. Food security was also noted, but often with the caveat that plots are small, with somewhat limited production ability. Recreation and getting out in nature were also strongly recognized, while health, economic prosperity through increased home values, crime prevention, and skill development were mentioned. Many of these benefits are also discussed in the Topic One: Benefits of Urban Agriculture section in chapter 2 of this report.

Barriers and Solutions to Building Community Gardens

In order to learn how an umbrella organization could be effective at building new community gardens, it was essential to understand what the barriers are to building new gardens, how an umbrella organization might overcome these barriers, and what mechanisms are beyond an umbrella organization's control. Knowing what the barriers are naturally begs the question of how to overcome the barriers beyond an umbrella organization. The question regarding barriers by far produced the strongest responses and the greatest amount of data in this research.

Almost all the participants noted that not having access to land in order to build community gardens is a major barrier. However, the participants identified that the most significant barriers are related to civic organizational structures. All but one participant viewed the city bureaucracy as a significant barrier to building gardens. One participant identified "the ineffectiveness of the bureaucracy," while another participant asked for "more cooperation from the bureaucrats." Close behind bureaucratic barriers was poor communication between city departments, which I described in the literature review in chapter 2 as silos, while one participant described this poor commnication as a "Balkanization of city structure[s]." When speaking about silos, one participant put it quite bluntly by saying, "Rather than partners, they're a rivalry." One interviewee said, "You've got these different players … that could be quite a challenge for people from the outside to navigate," while another interviewee said, "Now we had to deal with two people or more with the garden, which was confusing, which didn't look very good on their part." Participants also indicated a concern over the lack of a central coherent policy at the city level. "I just found it was an inconsistent policy," one participant said, while

another participant said the "lack of clear policy can also be challenging in the case of departments that don't have it exclusively articulated."

More than half of the respondents also identified poor communication between the city and organizers of new garden projects. As one focus group participant, put it, "I don't think that they're effectively communicating with the people who want to be creating gardens; e-mails are being lost, phone calls are not being returned consistently, there's a lot of lag within these communications, I believe." Participants mentioned discouragement and disincentives from various departments as well. One interviewee said, "Discouragement at the staff level … that first phone call may put them off the whole idea." When referring to communication with the city, a focus group participant said, "It actually dissolves and disempowers the integrity of the grassroots network."

Participants also identified poor service coordination from the city as a barrier. One interviewee talked about extensive delays in connecting water lines, where the gardeners "had to go to council … and we had to go to the press … [and] it's not a done deal yet." In another case when a 3,000-square-foot garden was agreed on and the staking and rototilling of the land were one month behind, the garden was finally staked out too small. Eventually, only 2,000 feet were rototilled, so rather than fight with the department, the organizer "just went out and rented a turf cutter and cut the other thousand ourselves."

Some of the participants reported a difficulty keeping momentum when dealing with the barriers they experienced at the city. When referring to the challenges of navigating the city, one participant said, "Everyone who was involved just quit and didn't come back. You know, why would you?"

Aside from barriers at the civic level, two significant barriers are the challenge of building community capacity and the challenge of establishing communication among groups wanting to start gardens. Participants also talked about the need to find out "who the other people are in your neighbourhood" and a "reluctance of people to actually get involved." Along the lines of capacity building, a couple of participants also noted that there is little public knowledge about what is possible. When dealing with communication during a garden start-up phase, one participant mentioned the challenge of having "90 to 100 people e-mailing you, saying, 'Hey, did you get my last e-mail? Am I in or am I out?' There's really a sharp spike in activity."

Participants raised concerns over funding, including the cost of starting a non-profit society, insurance, resources, and other start-up costs. As well, individual participants identified a number of other barriers, such as the challenge of building a non-profit society, discouragement from the food industry, concerns around land use on un-ceded Indigenous territory, and the need for a land inventory.

One participant had a difficulty with the term *barrier* and preferred to think in terms of working out

> Some connection in some way with the person who has control of that land. whether it's [the] parks board, the city, private, or commercial. So what they would have to do is go talk to whatever party that is, and [find out] what would be required to get that land. That's been happening all over the city, successfully.

When responding to what barriers need to be overcome, many participants simply referred to the barriers they had already identified. However, the two key themes that emerged were the need for a single working group or person to deal with at the city level and the need for one clear central policy. One participant said that part of such a policy would be a set of transparent criteria for providing land tenure to community gardens,

commenting that "we don't even know what the rationale for picking one over the other is." One focus group participant noted that

> City council … needs, at a policy level, [a policy] that says we want community gardens for these reasons. Then it needs to set objectives, how many gardens does it want, and it needs to set policies to achieve that.

There was also significant support for lobbying politicians. Finally, at least half the participants suggested that they would consider guerrilla gardening as an option to overcome the perceived barriers of accessing land though the civic bureaucracy.

Table 1 summarizes the major barriers to building community gardens and some potential solutions.

Table 1. *Barriers and Solutions to Building Community Gardens*

MAJOR BARRIERS	KEY SOLUTIONS
Civic land tenure	Single team or point person at city
Civic bureaucracy	Central civic policy
Civic silos	Transparent criteria for land tenure
Unclear civic policy	Objectives for number of gardens
Poor communication between city and new garden organizers	Political lobby
Discouragement at civic level	Guerrilla gardening
Disempowerment at civic level	
Poor service coordination at civic level	
Loss of momentum and failure of community capacity	
Difficulty developing community capacity	
Funding and resources	

Advantages and Disadvantages of Three Theoretical Umbrella Models

Three contrasting models for an umbrella organization were presented to the participants. Participants were then asked to identify the advantages and disadvantages of each model. The three models were: (A) a central umbrella organization that sponsors and coordinates the development of all new community gardens; (B) a central umbrella organization that either directly coordinates and sponsors new community gardens, or supports others in developing new, independently run community gardens; and (C) a loose association of small, umbrella-like groups that sponsor and coordinate the development of community gardens.

For model A, all but two participants identified the advantages of a central umbrella organization that sponsors and coordinates the development of all new community gardens as having one central location, presumably offering some consistency, and as having clear policies and procedures. Conversely, all participants saw the disadvantages of this model as being too narrowly focused and as lacking diversity. Several others indicated that model A would cause a second level of bureaucracy.

The focus group discussed how model A would be at risk of stretching itself too thin by taking on too much. In other words, if they managed all gardens in the city and were eventually successful in building new gardens, there would be so many gardens that the organization would be overwhelmed. They also discussed the vulnerability of such an organization to takeover or collapse. One participant said, “Sooner or later, they [community organizations] go into crisis and collapse. If you’ve only got one community organization running community gardens, when it collapses, there [go the] community gardens.”

For model B, participants saw an increase in flexibility when a central umbrella organization either directly coordinates and sponsors new community gardens, or supports others in developing new independently run community gardens. The participants were less resistant to this model, because it both retains the advantages of a central organization and offers increased flexibility. Despite this flexibility, however, all participants rejected this model as being too narrow in scope and as lacking in diversity. The focus group identified the risk that organizing some gardens and not others would create split goals within the organization. As one participant said, "A good way to destroy an organization is to give it a fundamental split in its goals." One interviewee also indicated that this model could interfere with gardens ability to build community capacity.

For model C, a loose association of small, umbrella-like groups that sponsor and coordinate the development of community gardens, more than half of the participants praised it for its flexibility and diversity, but equally criticized it for being confusing, inconsistent, and disconnected to the big picture. Yet one interviewee, citing the Urban Diggers Society, indicated that this model has a proven "track record that it works; it works well." As this participant explained, this model has "the advantage of being more in touch with local areas," and it also reduces duplication and permits resource sharing. The focus group discussion revealed that with funding, this model could be more successful, but the other two models were more likely to be funded. One focus group participant said:

> What happens is in models A and B, we tend to assume there is money attached to it. In model C, we tend to assume that there's no money attached to it. So there's an inbuilt structural bias to it.

Finally, one interviewee indicated that this model is "what we have now" and a focus group participant said that it is "messy, it's all over the place, but it offers some support."

It should be noted that one participant dismissed all three models of the umbrella, saying,

> I don't think an umbrella organization is necessary … and I think the disadvantage is that it takes away local autonomy and it takes away the ability of gardens to develop their own membership in the kind of ways that [are] necessary to run an organization.

Table 2 compares the advantages and disadvantages of each model.

Table 2. *Advantages and Disadvantages of the Three Umbrella Models*

	ADVANTAGES	DISADVANTAGES
Model A	Central consistency	Narrow scope, no diversity
		Potential for added level of bureaucracy
		Risk of being overwhelmed
		Vulnerability to takeover, collapse
		Undermining of community capacity
Model B	Increased flexibility	Narrow scope, little diversity
	Central consistency	
		Split goals
		Similar risks as model A
Model C	Flexibility	Inconsistency and confusion
	Connection to community	No connection to the big picture
	Sharing of resources	
	Reduced duplication	"It is what we have now"

Although the focus group members were not directly asked questions 8 through 13, which concerned risks, community capacity, preferred umbrella model, and alternative roles for an umbrella organization, they frequently raised these issues in their

discussion (see Appendixes B and C for interview and focus group questions). Where the focus group members addressed these issues, it is noted in the results.

When interviewees were asked what risks, shortcomings, or unintended consequences an umbrella organization would give rise to, there was a consensus that a one-size-fits-all model would create a disconnect with individual gardens. One interviewee also expressed a concern that short-term funding for this type of organization would be a problem:

> We can't just throw [in] a year's funding to start up an umbrella organization and get them to do something. Because when that funding is gone and there is no more, that could well be the point in time when those challenges emerge.

One interviewee also indicated that an umbrella organization is at risk of losing its institutional memory if it fails, while another interviewee indicated that an umbrella organization may simply be ineffective or offer only a "façade" of authority – "a façade of authority without really having authority. So it may get worse; if people invested their belief in this thing and it didn't have the power to do what it needed to do, then it could be worse." All interviewees indicated that any garden should retain the right to operate independently of an umbrella organization. Finally, according to another interviewee, an umbrella organization would become an energy drain on existing gardens, pulling volunteer efforts away from the garden to prop up the umbrella organization.

The main risks and unintended consequences of an umbrella organization are as follows:

1. One size fits all
2. Short-term funding
3. Loss of institutional memory
4. Façade of activity or effectiveness

5. Energy drain on existing gardens.

Building of Community Capacity, Leadership, and Allies

Although most participants viewed community gardens as a way to build community, they also saw the need to build community in order to build community gardens. All but one respondent identified the need to conduct outreach to the community and to develop the support of the whole community. One interviewee explained that when building community support, "if push came to shove, as far as the garden being under some kind of threat, that these people are going to stand up for us."

Other participants noted the need for outreach projects such as doing public education, "doing media things as well in newspapers [and on the] CBC," publishing a guidebook, producing posters, and using electronic list servers. A second strong theme that half the participants endorsed was to support a community garden's leaders and volunteers. One participant said, "The challenge is actually in identifying the people that want to do that [take leadership], and making sure that they're well supported and that they don't burn out," while another participant echoed that point by saying the challenge "is identifying who the initial leaders are or encouraging that leadership to emerge." A third theme that emerged was creating opportunities for volunteers to develop skills. In some cases, participants thought that overcoming barriers help people grow as leaders and volunteers. In fact, one focus group participant had a revelation that overcoming barriers helped her group learn, bond and grow together. Two other topics of interest were developing mentorship and addressing the challenge of people being busy and having too little time to participate.

Two interviewees thought that if you built gardens, communities would build themselves around those gardens. Their view was that building community is not necessary at first because, as one said, "if you build it [the garden] they [the community] will come." The other interviewee phrased it as "the choir is out there, ready to sing." Contrary to this view, three interviewees indicated that by doing all the work to build gardens for gardeners, you undermine the community capacity building that comes from having the gardeners develop the gardens themselves.

The main ways to build community capacity and engage allies are as follows:

1. Conduct community outreach,
2. Identify and support volunteers and leaders.
3. Create opportunities to develop skills.
4. Develop mentorship.
5. Build the gardens first, to attract community.

The Preferred Umbrella Model

When participants were asked about a preferred umbrella model, the main theme that emerged was the ability to offer greater or lesser support as needed – in other words, the ability to strongly assist some garden organizers when needed and promote self-sufficiency with others. One interviewee summed it up best by stating:

> The ideal organization would provide support, the right support at the right time. … Some people need to know how to get soil tested, other people need to know where they can access funding, other people need to know what city department they should go to, some people need to know a name and number. … Some just need a sheet of paper; others need a lot more handholding.

Another strong theme that emerged was the idea that an umbrella organization could supply 1 to 2 years of start-up assistance and sponsorship for new gardens and eventually lead to that garden becoming independent. In this approach, gardens would be

encouraged to become independent as soon as practical. One interviewee explained this need for short term sponsorship by saying, "Where I see sponsorship really coming into play is in the initial start-up phase, because that's where the big crunch comes. Typically when gardens get going, they manage to be quite self-sufficient." The focus group also discussed this short term sponsorship, saying,

> They [an umbrella organization] would enable very diverse groups to manage to get stable gardens together and then once they have a stable garden their job is done, and their next goal comes up … that would be a very valuable bit.

In a related theme, mentorship and guidance for garden organizers were seen as important. Another interviewee was clear that having decision-making ability or influence at a city level would be essential.

The contrasting themes of a central organization and of local control for gardens re-occur here as well. While several participants acknowledged the benefits of a central organization, other participants indicated the value of local control for the gardens.

One interviewee described a cooperative model for an umbrella organization where members would come from diverse stakeholder groups. These groups would include various civic stakeholders, as well as "community groups, small industry … small farmers … anybody who wants to grow food in the city could have a vested interest in making the support network work, the co-op work." This participant explained that the "citizenry gets a more coherent support network to immediately plug into." When asked how this umbrella model would bridge or work with the civic government, the participant indicated that "it is the bridge."

When others were asked how this umbrella model would bridge or work with the civic government, another interviewee, referring to the Urban Diggers model, said that "it would act as a conduit of information between the civic government and the gardeners."

Yet another participant indicated "there is a number of points of contact that a potential garden might have with [the] regulatory apparatus … these are all places where an umbrella organization could help if they're needed." Three interviewees indicated that the ability to advocate on behalf of the gardeners would be a significant value.

As mentioned earlier, one participant was adamant that there should be no umbrella organization of any kind. Instead, this interviewee recommended that gardens work to support and cooperate with each other. The interviewee explained that this approach would reflect the current practices endorsed by the Strathcona Community Garden's constitution, which directs the organization to "help foster other community gardens, and I think that should be part of all the community gardens."

The focus group brainstormed a model that was an adaptation of model B. In the hybrid model, the wording is changed. Removing the phrase "either directly coordinates and sponsors new community gardens, or" from the original wording leaves "a central umbrella organization that supports others in developing new, independently run community gardens." As one participant explained, this hybrid model is "a sort of a fusion between [models] B and C, I guess" while another participant said that "it creates a mentorship model."

One participant opposed any kind of an umbrella organization; a summary of the preferred elements of an umbrella model from all but the one participant follows:

1. Greater or lesser support as needed
2. One- or 2-year start-up assistance
3. Mentorship and guidance
4. Decision-making ability

5. Central umbrella
6. Local control
7. Cooperative model
8. Loose association of small umbrellas
9. Hybrid of models B and C.

Other Umbrella Activities

Finally, participants were asked what other roles an umbrella organization could play. The primary additional theme they identified was acting as an information sharing resource or conduit. Two participants suggested that proactively searching for land would be an asset for future garden projects, while the focus group thought developing gardens on private land would be valuable. Two participants thought that having an umbrella organization could help promote community gardens publicly, and one interviewee mentioned running educational programs as a possibility. One interviewee recommended setting up programming, but it was not clear if this programming was for specific local gardens or for the whole city. Another interviewee suggested putting on community events.

Study Conclusions

In this section I compare the data results with the literature to develop conclusions. I have divided these conclusions into two main parts. In part one, identifying benefits, barriers and solutions, I explore why people want gardens, what stops them and what solutions can help. In part two, finding an umbrella model, I make sense of the many contrasting conceptions for an umbrella organization. Two subsections of this part

are looking at developing effective governance structures and carrying out other umbrella activities.

Identifying Benefits, Barriers and Solutions

The participants corroborated many of the benefits of UA and community gardens that were outlined in the literature review. These easily identifiable benefits are clearly motivators for the construction of more community gardens. Food security, the environment, recreation, health, and physical activity are among these benefits, but it was evident that community development was the most widely recognized benefit.

Despite the fact that community gardens have the capacity to build community, participants identified building community capacity as a barrier to building gardens. Put another way, to get land for gardening, organizers must get interested community members to construct gardens that will build stronger communities. The problem or paradox is that you need community to create community. As readers will see, this paradox is one that repeats itself in the data more than once.

Although having access to land was identified as a key barrier by most but not all participants, it is straightforward to conclude that when many other barriers were discussed, the implication was that these barriers impeded access to land. Therefore, access to land is the primary obstacle to overcome when building community gardens.

In Vancouver, the high cost of land can give rise to numerous conflicting interests in land use (Kaethler, 2006). Although there are many potential sources of land for community gardens, civically owned land is generally relied on more heavily than other sources (Herbach, 1998). It is not surprising, then, that participants identified a number of barriers at the civic level.

As the participants pointed out, the fundamental barriers at the civic level are dealing with bureaucracy and working across departments. It is reasonable to expect that new organizers would have to demonstrate their ability to respond to reasonable guidelines and to responsibly steward any civic land that was provided for a garden. However, as one participant explained, the "bureaucratic hurdles are too high" at the civic level. When barriers are too high, questions may arise about the sincerity of the process. Arnstein (1969) warned readers to be aware of superficial participation in citizen processes, where the foregone conclusion may be that the proposals will not succeed.

What makes this process even more difficult is the confusion that organizers experience when trying to navigate which department or staff they are expected to consult or negotiate with. When departments appear to operate at cross-purposes and fail to communicate with each other, silos emerge, creating internal competition, confusion, and uncertainty (Côté, 2002; Perzyk, 2007). This difficulty could not be identified more blatantly and or discouragingly than by one participant's comment: "I believe there was some internal battle between Engineering [Services –] Streets and Social Planning. … It comes across that they can't decide on what to do or how to do it." It is difficult to say unequivocally that civic departments are suffering from the silo effect, but the perception among community gardeners, though they do not use my terminology, is that silos clearly exist.

Given the experience of bureaucracy and the perception of poor communication between civic departments, it is not surprising that participants complained about poor communication between garden organizers and civic administrators. Poor communication and the frustrations of dealing with intransigent systems can lead to discouragement and a

loss of momentum. As Hartley (2005) tells us, people need to feel that they are having some success in order to carry on. What the participants reported is that many feel disempowered and discouraged by the process of securing civic land for community gardens. For many, this discouragement is where the process stops. Participants in this research have personally experienced or have witnessed others who have experienced discouragement in the process and have given up. Hall (1996) confirmed that long delays in the development process discourage organizers, who then move on to more fruitful endeavours. While participants identified the need to build community in order to access land and develop the capacity to build a garden, the civic process seems to act counter to this approach by discouraging new organizers and communities.

Figure 1 (overleaf) shows how initiatives to build community gardens systematically fail.

This sequence of community garden failure raises the question of what the root causes of these bureaucratic issues are and how to overcome them. As Côté (2002) explains, silos are the result of opposing objectives and mistrust among departments. Aligning objectives and building trust among these groups take tremendous guidance, leadership, and planning. More than half the participants recommended lobbying politicians for their support of community garden development. Identifying community garden champions within each civic department and encouraging political leadership to promote a supportive environment where community gardens can thrive could align departmental objectives.

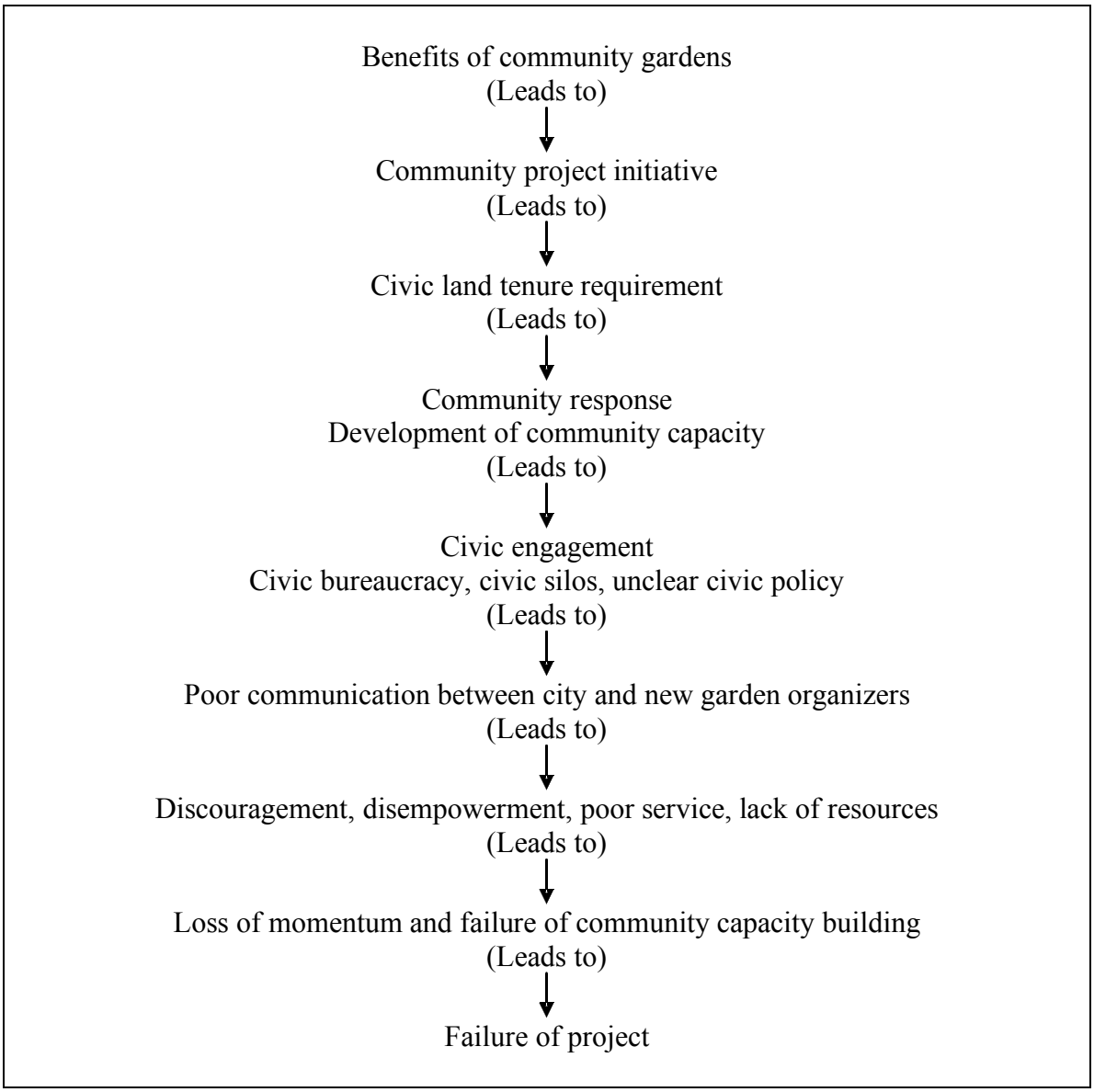

Figure 1. Sequence of community garden development failure.

To create the conditions that break down silos and other bureaucratic barriers, civic governments can support civic workers and garden organizers in a variety of ways. In particular, the participants identified the lack of a clear central policy as a barrier to

building new gardens. To overcome this issue, the Seattle city council, for example, passed a resolution to formally support its gardening program, align related policies, and promote cooperation and collaboration across all departments (City of Seattle, 1992). Among the solutions mentioned by the participants was to develop a unified citywide policy that would clarify the processes involved and the expectations for organizers.

Among the related policy solutions was a suggestion by two interviewees to develop criteria for approving land tenure. As Arnstein (1969) say's, the process needs to be made transparent. Establishing the real criteria for land tenure and making them public help to provide a level playing field that citizens can reasonably trust. Another interesting solution discussed in the focus group was to establish objectives for the number of gardens sought after on city land. A similar initiative was implemented in Seattle, where a plan called for one community garden development for every 2,500 households (MacNair, 2002). When organizers are negotiating objectives, Arnstein (1969) warned them not to minimize their requests but to ask for the full amount that is required and expect to receive it. By requesting what is required, garden communities can negotiate land tenure objectives openly and effectively. Other important mechanisms identified in the literature review on governance are aligning zoning by-laws, relaxing policies, and developing flexible options that support community gardens or other urban agriculture initiatives.

One key issue that was brought up in a number of guises by participants was resources and funding in general. The costs of gardens can be limiting, particularly in the start-up phase. According to Cosgrove (1998), departmental budgets in Toronto were aligned to encourage the development of new gardens. Departments with particular

resources or expertise can provide services, supplies, or financial assistance. Help with insurance, start-up costs for non-profits, and assistance with publicity were specifically identified, but one could imagine delivery of soils, assistance with water hook-up and drainage, building and maintenance of pathways, soil testing, and other forms of assistance and financing. Again, in requests for resources, Arnstein's (1969) advice to ask for all that is needed comes to mind.

Given the concerns with civic bureaucracy and silos that participants expressed, it is not surprising that a majority of them identified the need to have one central group or person to contact and coordinate with at the city level. Although Montreal and Seattle have different governance models than does Vancouver, having a central coordinator with the ability to negotiate and coordinate with the diverse civic stakeholders has brought these cities advantages. However, as has been mentioned, such a position without real authority to make or significantly influence decisions on land tenure and other resources allocations would render the position inadequate. As one participant pointed out, the position is not useful if the incumbent simply becomes an impediment to reaching those with the real authority. For this reason, some saw this person or team acting as an advocate or perhaps an ombudsperson on behalf of gardeners.

The main objective of this research was to identify a potential model for an umbrella organization that would be effective at facilitating or producing new community garden developments. Benefits can be derived from an effectively operated umbrella organization. However, it must be understood that, without political leadership to guide and facilitate an alignment of purpose across departments and with managers at a civic level, the effect of a well-oiled and polished umbrella organization could be negligible.

Finding an Umbrella Model

Two major yet contradictory themes emerged from the data on umbrella models. Simply put, the key contradiction is that a central umbrella model is good in that it would create efficiency and consistency, and at the same time, it would be bad because it was not flexible or diverse.

Community gardens in Vancouver are largely governed at a local level. The local non-profit society becomes responsible for most decisions about how the garden is designed and managed. This ability gives the society a considerable amount of freedom and diversity in the way the gardens develop. This freedom is prized by the gardeners, as can be evidenced by the strong rejection of a system that could possibly threaten it – that is, by a central system that might restrict this freedom and diversity.

Furthermore, as outlined previously, gardeners are suspicious of the civic government bureaucracy. A central organization that might increase or create a second level of bureaucracy becomes a threat as well. There is also evidence, according to some participants, that keeping governance local develops a more robust capacity among the organizers. In other words, being challenged to overcome obstacles and adversity on the way to building community gardens builds skills and resilience in the community (Lukasik, 2003). As well, the ongoing management of the gardens increases abilities and develops camaraderie among the leaders and members of the garden. The risk of losing these assets by giving over control to another organization, according to the participants, is clearly not worth the price of good central management.

On the other hand, an organized and efficient central organization would be useful for starting up gardens. Such an organization would have a better understanding of the

bureaucratic structures involved in starting gardens and could be more effective at establishing new gardens. As several participants described, the central umbrella would also be a one-stop shop, with one phone number and an efficient, streamlined, and coordinated organization. However, as one interviewee explained it, "The disadvantage of [model] C, and I suppose the relative advantage of [models] A and B, is that if the standardization is good, then it could be really good." The implication here is that if the standardization is bad, then it could be really bad. If the gardeners give over control to a central organization and the standardization is poor, then the gardens are in trouble. The other implication in this statement is that model C is at a disadvantage, presumably because it entails a loose organization and is probably relatively disorganized at a citywide level. There is no central phone number or Web site, and no clear and organized protocol. As other participants put it, it is "messy," "disorganized," and "fragmented." Therefore, the central organization can bring some benefits that the more diverse model may not – but again, not without risks.

A number of risks may threaten a central umbrella organization. Participants identified takeover or appropriation, loss of institutional memory, overwhelm as a result of over-control, collapse, a drain on community garden energy, and the undermining of community capacity as worrisome risks. Not paying attention to these issues could be perilous.

Regarding the last risk mentioned, participants showed considerable concern that a central umbrella organization would undermine the capacity of the gardens. One interviewee said, "Each garden would be a weaker structure and therefore more prone to pests and bureaucrats and other invasive species." As McKnight (1995) explains, in

modern society, individuals often relinquish ordinary obligations to experts and forfeit their own skill development and competence as a result. Contrary to this modern trend, Yukl (2006) wrote that encouraging participation and involvement in organizations by creating opportunities to develop skills should help build future leadership and resiliency in organizations.

By taking the advice of McKnight (1995) and Yukl (2006) and building capacity at the local garden level, organizers can begin to counter some of the potential risks an umbrella organization might generate. If an umbrella were to support new community gardens to operate self-sufficiently, then virtually all the risks mentioned in the previous paragraph can be minimized. If an umbrella organization were to collapse or in some other way fail, the self-sufficient gardens would be able to carry on without critical failure.

The question arises that if an umbrella organization is operating as a central controlling organization, how can it support independence and capacity building among the local gardens at the same time. This paradox is rooted in the presumption that an umbrella organization would undermine the development of self-sufficiency and stability of the individual garden. Broadly speaking, if the primary objective of an umbrella organization moved from controlling gardens to developing local community capacity so the community can control its own gardens, an umbrella organization can unravel the paradox. The umbrella model can build diversity and flexibility to safeguard against many of the risks inherent in an inflexible, narrowly defined, centrally controlled umbrella organization. In this way, the power and governance remain with the gardens and not with a second level of bureaucracy, as some participants feared.

The next question becomes how this type of umbrella model can build in the valuable parts of a central model without generating more bureaucracy and at the same time being inclusive of all the diversity and flexibility that gardeners prefer. The hybrid model identified during the focus group holds some insight to how this preceding question could be worked out. Essentially, one focus group participant changed the wording of model B slightly, to read as "a central umbrella organization that supports others in developing new, independently run community gardens." By removing the phrase "either directly sponsors and coordinates new community gardens, or" from the original, the new statement suddenly reflects a different set of objectives.

An umbrella organization that focuses on "supporting others" would be able to incorporate many of the elements participants raised as part of their preferred umbrella model. The main themes that emerged from the question on a preferred model were being able to give greater or lesser support as needed and providing mentorship and guidance. Accomplishing these objectives would be a straightforward process of helping organizers when it is useful and encouraging the independence of other organizers. This form of umbrella organization would be in a position to sponsor new gardens for a limited period of 1 to 2 years while the new garden developed the ability to become independent. More than half of the participants identified this temporary sponsorship as useful.

By promoting and encouraging the cooperation of existing garden organizers, such an umbrella organization could accentuate the best of "what we have now," while providing coordination when support is missing. In fact, a central organization that prioritized the development of local groups could become the mechanism that glues model C, a "loose association of small umbrella organizations" together. While

supporting the desired independence and local control of all gardens, this hybrid model could also provide all the advantages of a central organization. These advantages could include acting as a central contact, advocating on behalf of organizers, and developing the consistency and clarity of the processes involved in building new gardens.

Developing Effective Governance Structures

There are several issues to consider that are related to the long-term health of an umbrella-type group. One participant identified his preferred governance style as a cooperative that includes members from a wide variety of stakeholders interested in community gardens and other forms of UA. Given the community focus of this project, there is considerable logic in engaging stakeholders to participate in the collaborative governance of an umbrella organization. Collaboration affords the members the opportunity to share resources, reduce duplication of efforts and resources, build capacity, and strengthen capacity by joining forces (Taylor-Powel et al., 1998). Organizational structures such as a non-profit society or a cooperative society are likely better positioned to fulfill these objectives than more top-down structures.

The risk of short-term funding should also be considered seriously. One participant raised the concern that financial start-up support from the civic government or other sources could dry up after 1 or 2 years of operation. After an initial flourishing of activity, an umbrella without long-term financial backing risks becoming a lame duck organization that becomes more of a drag on community development than a boon. A similar risk could emerge with an organization that, as one participant said, is given the façade of effectiveness, when in fact little is ever accomplished. Arnstein (1969 warned

that participation without real power is an empty and frustrating ritual. As this interviewee exposed, such an ineffective organization could do more harm than good.

Carrying Out Other Umbrella Activities

An umbrella organization can fulfill a number of secondary roles. Some of the suggested alternative activities such as proactively searching for land for future garden projects and developing gardens on private land could help meet the primary objective of promoting more community gardens. However, it is worth mentioning the risk identified by the focus group that overextending the organization can lead to collapse or ineffectiveness. Keeping this risk in mind and considering where other activities do not impede the organization's primary objectives, acting as an information resource or a conduit for sharing resources, along with promoting community gardens publicly, running educational sessions, setting up programming, and organizing community events would all be valuable assets to an effective umbrella organization.

Scope and Limitations of the Research

This research evolved out of the particular conditions and history in the City of Vancouver. Historically, most community gardens in Vancouver have been governed at the local garden level. This research attempted to pull together these diverse and separate organizations, to increase their influence and effectiveness where the garden organizers meet the civic systems. In this research, I also attempted to maintain the integrity of local garden governance. In cities where governance practices are centrally controlled, the application of these research findings may be limited.

To be clear, this research engaged nine individuals from a larger pool of leaders and volunteers in the Vancouver community. Clearly, this is a limited sample of the

population of those interested in community gardens. However, I attempted to sample a cross-section of experience and knowledge that was widely representative of the larger community. Despite this attempt, I was unable to reach every subset of community gardener. For example, I did not engage guerrilla gardeners or members of a centrally controlled garden in the west side of Vancouver, among other subgroups of gardeners. Although this omission should not significantly detract from the data as a whole, it should be taken into account when considering issues that affect some stakeholders. Furthermore, six participants accepted the invitation to attend the focus group, but three participants cancelled at the last moment. Despite the low turnout, the discussions were vigorous, highly fruitful, and of considerable value when I analyzed the overall data. Nonetheless, it should be noted that participation in this area was a reduction from the original plan.

Although I sought to reveal how this research could apply to other forms of UA, ultimately it is limited in this application. Certainly, there are some potential transferable concepts that can be used in a broader urban agriculture context, but they are not as extensive as I had hoped.

I am passionate about gardening and equally passionate about building community. With this passion in mind it was essential for me, as a researcher, to be aware of and reflect on my personal bias. Triangulating data through the literature reviews, interviews and focus groups helped eliminate bias. As well, in conducting this research, I was careful to represent the interests and views of the participants and therefore the community, to the best of my ability, without any preconception of the outcome. Although complete elimination of all traces of bias may not be possible, I

believe I have successfully managed my bias and the data and conclusions speak for themselves.

During the data analysis, questions and issues became apparent that were not easily answered by the existing data. As Stringer (2007) writes, “Human inquiry, like any other human activity, is both complex and always incomplete” (p. 179). As in any qualitative research, there would be value in returning to the interview process to explore and clarify imperfect deductions of what the data mean. A variety of interesting and potential relevant issues arose in this project that could add value to this research and related explorations. Given the resource limits, some of the more notable issues are left for future research, while some issues may be overlooked. The following chapter considers some of these opportunities for future research, as well as recommendations stemming from the core of the data.

CHAPTER 5: RESEARCH IMPLICATIONS

Two major themes emerge from the findings and conclusions of the research: identifying what functions an umbrella organization could perform, and aligning civic government policies, practices, and goals. The recommendations in this chapter reflect these two themes, as well as other supportive considerations. To address the primary objective of this research, and the first theme, I present recommendations on what activities and functions an umbrella organization could perform to foster new community garden developments. Although an effective and persuasive umbrella can make important contributions to the expansion of community gardens, the best-run organization is limited by the responsiveness of the system it interfaces with. Given this limitation and the frustration participants have identified with civic structures, to address the second theme, I then make recommendations for helping align civic goals and streamlining civic practices, to encourage and support the development of community gardens. In giving my recommendations in relation to the research question and sub-questions, I have attempted to combine the knowledge, wisdom, and insight of the various participants with the information I have collected through the literature review and my best understanding of the issues at hand.

Optimal Functions and Activities of an Umbrella Organization

The research question for this project was, "What intermediary socio-political functions can an umbrella organization perform to facilitate and expedite the building of new community gardens in the City of Vancouver, BC?" In answering this question, I found it useful to consider one of the sub-questions: "In what ways can grassroots leadership and community capacity be leveraged by an umbrella organization to build

new gardens?" As the results and conclusions in the previous chapter illustrate, there are many potential functions an umbrella organization could carry out to build new community gardens; however, each action has the potential to set off a sequence of unexpected results.

Clarifying the Primary Objective

As described in chapter 4, the focus group identified an umbrella organization that could act as a central organization that supports others in developing new, independently run community gardens. This description can be used as a foundation to design and build a positive and supportive umbrella organization. The key components for the success of such an umbrella organization are the health and the vibrancy of its membership. Even a well-run organization is susceptible to changing conditions that could make it vulnerable to collapse, appropriation, loss of institutional memory, or a major change in purpose. An umbrella organization that focused on central governance or neglected to build capacity and leadership at the garden level would risk weakening these local structures. It follows that if a central umbrella organization were to fail and local garden organizations were not healthy, resilient, and competent, the greater risk would be a complete collapse at the garden level. Therefore, the primary objective of a community garden umbrella organization in Vancouver should be to develop community capacity and leadership, so that organizers can build and independently manage their own locally controlled community gardens.

Building Capacity

The umbrella organization can achieve the primary objective by acting centrally to build locally. The main function of an umbrella organization then would be to act as a

central clearing house for linking people, ideas, and organizations together, in order to develop community capacity. Interested gardeners and organizers in the city would be able to contact a central location – via a phone number, Web site, or brochures – where advice, direction, and guidance would be provided. Such a centrally organized body would link these interested people to the right organization or person within the city. It would also connect and encourage collaboration among all the groups that are involved in securing land and promoting community gardens.

The umbrella organization can balance its ability to lead and generate new garden developments with its willingness to create opportunities for community members to build skills so they can manage and lead their own garden's development. The umbrella organization could therefore support community gardens to maintain as much independence as possible and encourage the gardens to develop their own community capacity. In fact, rather than take on the responsibility of helping every new garden initiative, the mandate of the umbrella organization can be to find the right person or sponsor within the city's garden community to work with and mentor new organizers. By developing mentors, the umbrella organization does not simply act as the community expert that teaches and facilitates each new garden development; instead, it facilitates the development of experts within the community to mentor and help each other build and maintain gardens.

To develop this mentoring of mentors, a citywide umbrella organization should consistently support the development of small non-profit sponsoring groups similar to the Urban Diggers Society, which successfully sponsors five community gardens in Vancouver's Mount Pleasant district. Where no local non-profit sponsor exists, the

citywide umbrella organization should encourage and support the organizers of independent gardens to mentor and possibly sponsor new garden organizers in their area. Furthermore, these small groups can be encouraged to work cooperatively and in collaboration with each other. These small groups can support each other in sharing administrative tasks, advocating for each other, and educating each other.

Although an umbrella organization can be generous in its role of giving away projects to other local organizations, it should also be fearless in taking them on when no other organization appears available. In these situations, the umbrella organization could support the fledgling garden organization in the most effective method possible for that group. As mentioned in chapter 4, the umbrella organization should offer more support or less support as required, not only to enable the new organizers to succeed, but also to challenge them to build skills that lead toward their independence as a garden.

Where required, the umbrella organization can become the temporary sponsor, to ensure the successful formation of a new community garden. In these situations, newly sponsored gardens can be supported and encouraged to develop their organizational capacity in order to become independent at the earliest opportunity. Maximum sponsorship should be for 1 or 2 years before the new garden would be required to develop a non-profit or to team up with an existing sponsoring organization. In this way, the umbrella organization would maintain its ability to respond to new initiatives without being overwhelmed by administrative obligations from earlier projects. As well, the community would retain its resiliency, local control, and ability to thrive, regardless of the umbrella organization's effectiveness.

When working with new gardens, mentoring mentors, or providing short-term sponsorship for gardens, the umbrella organization should consider offering guidance in all aspects of garden administration and coordination. This support may include coaching in how to build community capacity and fulfill civic government obligations, as well as in how to design and build gardens. In particular, help and direction should be given to steer new organizers through the maze of organizing, registering, and operating a non-profit society. This support should include teaching organizers how to run meetings, set up a board, coordinate finances, and manage other societal obligations.

It may not always be necessary to wait for citizens to come forward to start a garden in a particular area. The umbrella organization would have the capability to identify a community that is under-serviced, or that has available land but lacks the capacity to support a new garden development. In these cases, it is possible for the umbrella organization to proactively seek out community capacity to build a new garden. By being proactive, a central organization could seek to start gardens in under-serviced areas.

Bridging Civic Relationships

Umbrella organizers should build productive and supportive working relationships with all levels of civic representatives and political leadership. Mougeot (2005) wrote that being organized is the means to developing influence and being rewarded. Building coalitions and collaborations can help build an alignment of citizens' values and civic systems. Through collaboration, umbrella organizers can develop real influence and the ability to advocate on behalf of the membership.

When building these relationships and connections, the umbrella organizers could actively identify emerging leaders in the community and engage them in these influence-building processes. In fact, all garden leaders should be encouraged and supported to develop these direct relationships and the ability to advocate for themselves and the gardeners. A citywide umbrella organization should develop a standing committee that regularly convenes with civic staff and political leaders, to further increase credibility and influence. As Arnstein (1969) advised, it would be essential for this committee to ask for and expect to receive all that it requires to develop a vibrant urban agriculture and community garden environment. Ultimately, this committee could work toward developing a mechanism for having real influence in decision-making at a civic level.

Undertaking Other Functions

An umbrella organization is capable of performing a variety of useful tasks unrelated to building new gardens. Many of these tasks can produce significant benefits for the gardening community, but not without some risk. Using energy and resources to fulfill one objective will pull energy and resources away from another. Therefore, it is essential that the umbrella organization prioritize the objective to build community capacity, in order to enable grassroots leaders to develop more community gardens. However, many of these tasks may be worthwhile when they do not overwhelm or continually drain energy from the garden organizations or the umbrella organization. With this caution in mind, the umbrella organization can achieve much by performing other tasks.

Of these tasks, working with partners to secure funding and resources for community gardens would be most significant, because it supports the primary objective.

Related to this task and also very useful is increasing buying power for bulk purchases such as insurance, soil products, and other supplies for multiple gardens. An umbrella organization could also coordinate educational seminars and workshops on such topics as developing good garden practices and organizing gardens. As one participant mentioned, the umbrella organization could also organize events and celebrations such as harvest celebrations. Keeping the risk of pulling the focus away from the primary objective in mind, all of these activities presented here should be considered.

Selecting the Form of Governance

This research focused on what functions and activities an umbrella organization would perform, rather than on how it would govern itself. However, at least one interviewee made the case for organizing an umbrella organization as a cooperative structure. As well, the literature I reviewed in chapter 2 identified shared leadership and collaboration as powerful tools for leveraging influence and building an organization's community capacity. Although it may be possible for an umbrella organization to function as a hierarchical structure, it had always been my presumption that because an umbrella organization represents the goals and interests of community stakeholders, it should in some way be governed by these same stakeholders. Therefore, based on this research, a community garden umbrella organization should have a collaborative governance structure.

Ensuring Financial Support

Benefits

Building community gardens cost money, yet as the literature review showed, community gardens generate a substantial return on investments. In response to the

research sub-question, "What are the benefits, rationales, and justifications for supporting and promoting an increase in UA and community gardening?" I built a case for an increase community gardens in the literature review. It is my hope that the literature will stand on its own to convince readers about the advantages of supporting UA and community gardens financially, including the salary of one or two full-time staff.

Civic Support

As the governance review also demonstrated, civic governments such as Montreal, Seattle, and other cities have invested significant dollars toward the development of community gardens. Because the umbrella model under investigation has the potential to deliver significant positive impact for the citizens of Vancouver, it is vital that the bulk of financial support come from the City of Vancouver. As well, in order to avoid financial vulnerability, other sources of funding through foundations, provincial and federal governments, donations, and the like should be pursued.

Creating an Umbrella Organization

The creation of an umbrella organization as described in this research is, in reality, at the discretion of the community it would serve. Should the gardening community in Vancouver choose to accept the recommendations I have presented or to adapt them to suit its needs, the question arises, who among the existing stakeholders should develop it? My recommendation is for the development of a small steering committee composed of five or six key stakeholders to investigate the appetite for the umbrella model by reaching out to all stakeholders. There is no decree that this initiative should come from one community group over another. Leadership can emerge simultaneously from a number of organizations, but should include the Vancouver Food

Policy Council, along with other potential stakeholders such as the Vancouver Urban Agriculture Network and City Farmer.

If there is an appetite to create this umbrella organization, the committee will need to invite all interested stakeholders to participate in a series of public meetings. At this point, the steering committee may want to adjust its composition to reflect interest from stakeholders. These public and steering committee meetings would help move the initiative forward to decide collaboratively on the umbrella's organizational structure, required staff, financing, and related details. This process represents an opportunity for continued cycles of action research and should be supported financially and with other resources by the City of Vancouver.

This steering committee should consider the recommendation in this report when developing the mission statement, vision, values, goals and objectives of this emerging umbrella organization. The main recommendations for operating an umbrella organization in Vancouver are as follows:

1. Develop community capacity and leadership, to enable organizers to build and independently manage their own locally controlled community gardens.
2. Operate as a central clearing house for linking people, ideas, and organizations.
3. Support community gardens to development their own community capacity.
4. Identify and mentor community mentors.
5. Encourage the development of local sponsor organizations.
6. Support fledgling organizations as needed.
7. Temporarily sponsor gardens for up to 2 years.

8. Educate and assist gardens to start and manage a non-profit society.
9. Proactively identify and develop capacity in under-serviced districts of Vancouver.
10. Build productive and supportive relationships with all levels of civic representatives.
11. Advocate on behalf of the membership.
12. Identify emerging leaders, and engage them in the civic influence-building processes.
13. Develop a standing committee that regularly convenes with civic staff.
14. Perform other tasks that do not drain energy from the garden organizations, such as the following:
    a. Secure funding and resources for community gardens.
    b. Increase buying power for bulk purchases.
    c. Coordinate educational seminars and workshops.
    d. Organize events and celebrations such as harvest celebrations.
15. Adopt a collaborative governance structure for the umbrella organization.
16. Ensure that the bulk of financial support for the umbrella organization comes from the City of Vancouver.
17. Secure other sources of funding for the umbrella organization.
18. Create a steering committee to develop plans for starting an umbrella organization.

Alignment of Civic Policies, Practices, and Goals

As described earlier in this paper, the best-laid plans of an umbrella organization would be ineffective if processes at a civic level were not aligned with a goal of increased urban agriculture and community gardens. If the examples provided of support for community gardens from various civic governments – along with the benefits described in the literature and by participants – are worth pursuing, then an alignment of Vancouver's policies should be undertaken. The research sub-question, "What alternate governance models, mechanisms, or practices would encourage new garden building?" was soundly responded to by the research participants and in the literature review. The following recommendations reflect the conclusions of the compiled data.

Leadership

The absence of community garden coordination and alignment of goals at a civic level is powerfully reflected by the data collected from the research participants, who represent 102 cumulative years of experience in community garden leadership activity. Silos, bureaucracy, vague policies, disincentives, sluggish services, and poor communication at the civic level profoundly affect the production of UA and community gardens in Vancouver. Champions within the civic government, whose hands are equally tied by fragmented civic practices, cannot easily overcome these challenges. Support for these champions by aligning policies, practices, and procedures must come from leadership at the highest civic level. As in other cities, the task of giving direction through policies and directives to staff for urban agriculture and community gardens largely falls on the shoulders of the elected city representatives. In Vancouver, this leadership needs to come from the mayor and the city councillors.

If the political leadership is genuinely interested in sustainable practices, the environment, community development, recreation, health, increased neighbourhood value, and food security, then acting to align civic policy is essential. As can be seen in other cities, coordinating all policies, zoning by-laws, finances, land and resource allocation, procedures, and guiding statements is essential for well-aligned civic systems and structures. Alignment of these civic systems in Vancouver is not realistic without this leadership. Therefore, Vancouver's Mayor and City Council have an opportunity to take leadership to align these objectives with all city departments and workers.

Unified Policy

The alignment of these objectives starts with a clear, unified policy that outlines the goals and purpose of this city initiative. It must be clear that this single citywide policy guides all departments and workers on this issue, that it supersedes all local departmental policies and procedures on this matter, and that separate departments do not create their own individual community garden policies. Through this citywide policy on community gardens, the political leadership can provide civic administrators with a clear and unequivocal statement that strongly indicates that the city wants community gardens. The policy must explain the strategy for establishing the gardens, and state that they will be supported financially and at a policy level. It should be noted that some participants acknowledged that the Vancouver Park Board policy on community gardens has been helpful in at least providing some assistance with developing new community gardens, but that the policy must go further and it should be unified under one authoritative citywide policy.

Aligning Departments and Eliminating Silos

Good communication, trust, and an alignment of goals between departments will minimize silos and increase the productivity and effectiveness of teamwork between departments. As the City of Seattle (1992) has demonstrated, the political leadership should direct the Vancouver Park Board and Engineering, Real Estate, Social Development, Planning, and other departments to work collaboratively and cooperatively with each other and with community groups, to fulfill the city's shared goals and objectives. This practice should result in timely service coordination and land tenure decisions, along with good communication between citizens, community groups, and civic departments.

Removing Departmental Barriers

As part of a unified policy development, an independent examination into specific departmental barriers, policy restrictions, and other impediments should be conducted for all key departments. Where barriers, mandates, and policies limit the development or support of community gardens, exemptions or modifications should be implemented.

Establishing Land Criteria

Each department should identify clear, transparent criteria for deciding how to allocate land for community gardens. These criteria should also explain how land is made available or not made available, and what steps are necessary in order for land tenure for community gardens to be approved. The criteria must recognize that land for community gardens can be usable for agricultural purposes and also take account of soil condition, available sun, interference from trees, land topography, and other considerations. Where

land tenure for an established garden expires, efforts should be made, as they are in the City of Montreal, (2006), Philadelphia (Neighborhood Gardens Association, 2008), and Seattle (P-Patch Trust, 2008), to help the established garden reinstate tenure or secure new land and relocate.

Setting Target Garden Numbers

As is practised in Seattle and was suggested by the participants, each department could set targets for a minimum number of community gardens. Seattle, for example, requires one garden for every 2,500 households (MacNair, 2002). However, Vancouver does not need to be limited by this target. Targets could be calculated annually or given as an overall total to be established by an identified date. Targets can draw on usable agricultural land and should be identified through the collaborative efforts of a citizens' committee, city staff, and legislators.

Providing Funding and Resources

Once established, community gardens are largely operated through volunteer efforts, with nominal expenses. However, start-up costs can be prohibitive and should be considered as part of a civic funding package for all new community gardens. Water hook-up, soil, construction material, landscaping, pathways, soil testing, design assistance, and funding should all be considered as part of this package.

Promotion of Community Gardens and Other UA on Non-City Land

The benefits review identified many reasons for promoting community gardens and other forms of UA. At the same time, the literature review identified a wide variety of incentives and measures for promoting the development of community gardens on private land, which could also be applied to UA in general. These can include but should

not be limited to granting tax exemptions to private owners who lease land for community gardens or other forms of UA and adjusting zoning by-laws to allow for garden development. UA and community gardens should also be encouraged through new building development design requirements and community amenity contributions.

City Team and Central Point Person

Ultimately, one of the biggest contributions would come from a restructuring and reprioritizing of a civic administration that was more proactive and more centrally coordinated. Establishing a team of civic representatives from each stakeholder department would help coordinate and align projects, services, and planning for community garden initiatives and upkeep. Such a team could facilitate and guide community leaders and project coordinators in the land and resource acquisition process, coordinate services, and brainstorm solutions to emerging issues. By having aligned objectives, this team would work collaboratively, network with partners, and advocate for gardens. The team would also work collaboratively with the umbrella standing committee to develop and maintain good communication between civic workers and the community.

Coordination of this team would be accomplished through at least one full-time city staff member who is dedicated to administering community gardens in Vancouver. This staff member should be a champion for community gardens. To reflect the community's desires, the position should have freedom and authority to make decisions and permit flexibility on restrictive policies and guidelines, where exceptions would support community garden initiatives. To generate this authority and because many of the functions of a community garden coordinator would not easily fit into the mandate of other departments, this position would benefit from an independent, high-ranking

reporting structure. To avoid silos, this coordinator should work closely with, and both support and be supported by, other city staff members involved in UA and food security initiatives. Although civic staff cannot be directly instructed by non-city committees, these staff members should in some way be accountable to the agriculture community.

By adopting the recommendations laid out in the preceding section, the city will be better able to support and encourage the development of community gardens. Figure 2 (overleaf) shows how the sequence of community garden development failure depicted earlier in Figure 1 can be transformed into a sequence of community garden development success.

Policy Research Committee

The development of a unified citywide policy on community gardening will require considerable investigation. The process should transparent and be coordinated by a committee made up of equal membership from key community stakeholders and city staff. This committee should work collaboratively to achieve its goals. It would be best if it were led and administered by one full-time city staff member with a record of championing community gardening and UA in Vancouver. The committee should hold no fewer than two city wide open public consultations. It is critical that this committee be charged by the political leadership with authority to study, probe, and scrutinize the current civic systems, and research and develop more aligned policies and practices. A practical budget should be provided to enable the committee to fully carry out its mandate.

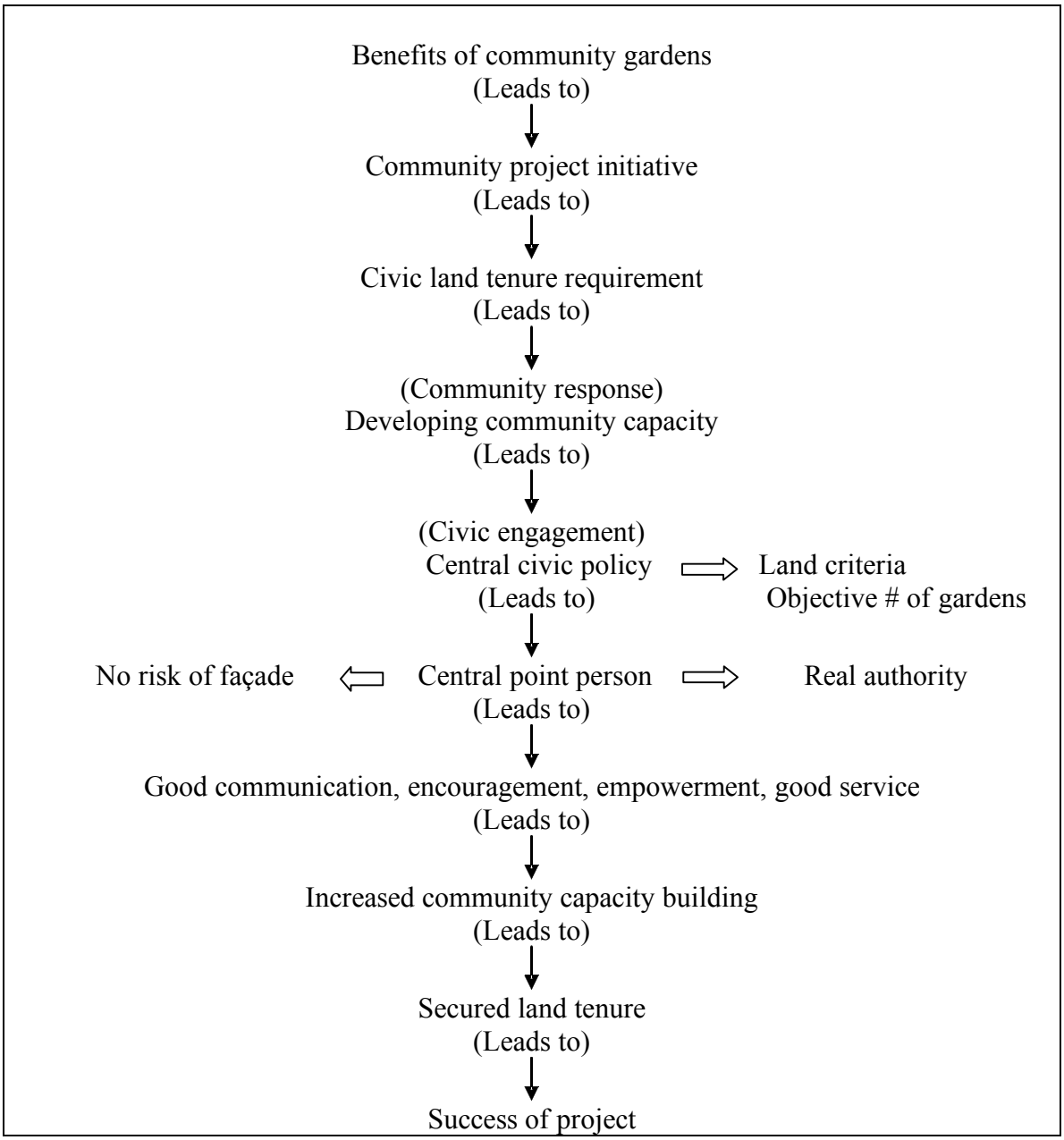

Figure 2. Sequence of community garden development success.

Implications for Future Research

One goal in this research was to identify how the proposed umbrella model could be adapted to other situations. Adjusting this model to apply to the coordination and development of community gardens on non-civic land is a simple step. Applying this model to other forms of urban agriculture is not so clear. Community gardens are volunteer-driven, whereas many forms of UA are entrepreneurial. Adapting from a non-profit focus to a for-profit focus within the same organization may be complex. More research needs to be done to identify whether one umbrella organization can successfully service multiple objectives, whether another but separate umbrella organization would work for UA, or whether an entirely different model is needed.

In my discussion with stakeholders and interviews with participants, many people claimed that building community capacity and leadership is essential to building a successful garden. At the same time, others said that if the gardens are built, people will come and the community will develop naturally. This dichotomy is part of a longstanding disagreement about the differences between locally and centrally governed gardens. Research should be conducted to identify the differences between gardens started locally by a developed community and gardens started externally without prior community development. The question is, can an externally developed community garden build the same level of community development as a local community-built garden?

One issue that plagues other cities, and that Vancouver is also vulnerable to, is the loss of short-term land leases. Other cities use a number of tactics to manage this vulnerability to loss of land tenure. One of these tactics is the development of land trusts.

Research needs to be done to identify the value of using a land trust and how one might operate in Vancouver.

One of Vancouver's most successful community garden organizations is the Urban Diggers Society. This small and economically run non-profit society nimbly operates five community gardens with little effort and significant efficiency. Its success is the ideal upon which I recommend the fostering of multiple small sponsoring societies. It could be quite beneficial to further research this nimble organization and discover how it operates so successfully.

Implications for the Organization

Vancouver lags behind many other cities when it comes to innovative greening practices. This study can be a powerful instrument for constructive change if key players, including community stakeholders, civic administrators, and funders, choose to embrace and implement the recommendations I have presented. Aligning civic systems and adopting the underlying intent of the umbrella model will lead to greater communication and collaboration among all stakeholders.

In any application of this model, it is essential to understand the importance of developing community capacity and restructuring civic systems. Restructuring and aligning systems will require considerable time and resources, but will produce considerable returns on the investment over time. As well, continual reinvestment in the capacity of the individual gardens strengthens their resiliency and ability to take on greater challenges. The increased capacity of each garden frees up the umbrella organization to reinvest even more energy in developing capacity at the garden level. This mentoring of mentors creates a continuing cycle of energy that strengthens both the

umbrella organization and the gardens. Simultaneously building alignment among civic departments to work collaboratively with the community will create an effective alliance. This alliance makes it possible for the community garden and urban agriculture communities to ask, as Arnstein (1969) recommended, for all that is required to transform Vancouver into a world leader in greening, gardening, and growing.

CHAPTER 6: LESSONS LEARNED

Preparing for and conducting this research for the past 16 months has been a powerful personal challenge. The journey has thrust me through the extremes of fear and insecurity, to joy and self-confidence. This chapter examines some of these experiences, to enable the reader to learn from my experiences and to show how I have grown from them and how I have overcome adversity to successfully realize my personal and community commitments.

It is important to understand what is meant by commitment to the community. Without a commitment to the community and its stakeholders, I would have had little fear and perhaps less joy. Once initiated, my research was no longer a simple exercise of finishing a big project so I could get my master's degree. From the outset, my discussions with stakeholders produced a subtle anxiety that compelled me to act authentically and to be fully engaged in my responsibility to produce useful results. There was no room for feebleness; if the community was going to commit to me, then I would be committed to them.

I frequently regretted my decision. The more I explored the project, the greater the complications became. As it was a citywide project, identifying and engaging stakeholders was challenging. Though a great many stakeholders were supportive, some were skeptical or worse. Even when discussions were respectful, opinions differed more than I expected. At times, simply understanding how to navigate the politics and construct the project proposal was overwhelming; I often longed for a simpler project. I am not saying the entire process was entirely negative, because there were many rewards and successes, but at times, the experience pushed my capability. What I discovered was

my ability to always push myself and rise to new challenges and succeed when I did not expect it.

To my delight, once the proposal was finished and accepted, fewer issues arose. It was my hope to engage participants in the process, so they could see themselves and make real contributions to the research. For the most part, I sensed an acceptance of the process, and the interviews and focus group went well. Large amounts of data were collected, however, and although the data showed much thought, they were often contradictory and confusing. Because of the scope of this research all of the data was very valuable. However, it would be wise for any researcher to carefully consider how much data they expect to produce and if it is all necessary.

Understanding these seemingly contradictory views was not simple. More than once, I was baffled by how these contradictions might possibly produce sound proposals. What I discovered was that reflection and time would eventually bring insight.

What was frequently revealed was that many of the contradictions were not so much contradictions as they were contrasting and often complementary perspectives of the same issue. When I thought of them this way, it became clear that each participant contributed many pieces of the puzzle. The conundrum was that each participant held a piece of the puzzle, but did not know what pieces of the puzzle were missing and who had the other piece. What started off as a complex web of dissimilar ideas eventually became a whole, or at least part of a whole. The value of my involvement was to connect the thinking and the dots of all of the participants. By doing this, I perceived I was in a privileged position to somehow create a whole. Interestingly, by being patient, I found that developing an understanding for how all the pieces could fit together was not as

difficult as I had expected. In the end, my original feelings that this would be an awkward and convoluted process were alleviated through time and reflection. Much of this process happened simultaneously with the data collection well before the formal data analysis began.

What was obvious by the end of the data collection was that I had an enormous volume of data to sort through. Transcribing the data literally took weeks. With well over 100 pages of data, the prospect of sorting through these data was intimidating. To sort the data, I covered the walls of my office and began connecting themes from every piece of data. It is hard to describe the impact of this process and the amount of work that was involved. The challenge was no longer navigating differing opinions; it was tackling the overwhelming data. The process of reflection and analysis was similar to the data collection phase, except now it was on my wall. Some of my original hunches were confirmed, and many new connections and insights were made.

What became most significant in this entire process was the evolution of my thought process. My understanding of the situation grew to deeper and deeper levels. For example, I first thought the solution to building more gardens was simply to have an umbrella organization deal directly with the civic government and sponsor all new community gardens. The issues were far more complex than this. An umbrella organization would only be as capable as the systems it interacted with, and so it was imperative to review these systems as well. My learning did not stop there. The community capacity and the resiliency of each garden became essential considerations. Eventually, I could see how the umbrella could work as a catalyst to build the capacity of each garden and encourage sponsorship at a local level, rather than at the citywide

umbrella level. It was important to begin with some assumptions, but it was essential to be open and responsive to what the data suggested. Although my initial assumption changed dramatically, the eventual results were far more meaningful. The real learning was in trusting what the data were saying.

Landmarks help researchers recognize how far they have come. During one of my earliest exploratory meetings with a key stakeholder, I recall being awkward with my rudimentary understanding of the systems, organizational structures, and meaning of the work I was embarking on. One year later, I was elated when I engaged the same stakeholder with a sophisticated and skilled understanding of the systems and issues involved in community gardens in Vancouver.

In embarking on a new action research project, researchers will find it useful to understand the dimensions of their commitment, including an understanding of the forcefulness with which stakeholders may participate. This is not to dissuade the reader from engaging in large, controversial commitments, for as great as the challenges might be, the rewards can be very significant as well. Furthermore, expect large amounts of data and be patient with these large amounts, as reflection will often lead to your needed answers.

In closing, I recommend that researchers seek supportive relationships with friends, colleagues, sponsors, and academic supervisors. These relationships can be an invaluable resource for proofreading, insight, and other resources, or simply companionship when you need a break. Most of all, be sure to have the support of your family, for without mine I would never have been able to complete this project.

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APPENDIX A: QUESTIONS FOR THE DATA COLLECTION DESIGN CONSULTATIONS

1) Do you understand the questions? (Does the wording make sense?)

2) Will the questions elicit focused answers that address the objectives of the research?

3) Are any of the qualitative questions leading the interviewee to a presupposed answer?

4) Are there important questions missing?

5) Does the order of questions make sense?

6) I am attempting to reduce the qualitative questions to 8 or 9 for the interviews and down to six for the focus group. What questions can be omitted or somehow combined with other questions (without making the question too complex)?

7) What other observations do you have about the questions?

APPENDIX B: INTERVIEW QUESTIONNAIRE

There are 14 questions with 20 sub-questions. This interview is designed to be about one hour in length. However, many of these questions can spark long in-depth responses. The duration of the interview will depend to some degree on the length of your response. Take as much time as you need however answering as concisely and on topic as possible will limit the length of the interview and focus the data. You don't need an answer for every question.

The intent of this research is to identify a system or organizational structure to increase the number of community gardens being created in Vancouver. The research will also seek ways to facilitate other types of gardening and urban agriculture.

Definitions of terms used in this questionnaire
City Definition of Community Gardens: The current City of Vancouver Draft Community Garden Guidelines defines a Community Garden as "…a place where people grow and maintain plants on City-owned property as a community development and environmental enrichment initiative operated by a non-profit society." The city does not recognise boulevard gardens, green street gardens and beautification as community gardens. For the purposes of this research the city definition of "Community Gardens" will be used.

Definitions of other "Communal Gardens": In this research questionnaire the term "Communal Gardening" will refer to school gardens, communal rooftop gardens, boulevard gardens, Gorilla gardens, green street gardens, and other forms of gardening where more than one individual from the community works land that does not come under the city definition of community garden.

Urban Agriculture: The term "Urban Agriculture" is a broad term that refers to all forms of raising plants and livestock including private gardening, commercial farming, ornamental gardens and beautification, the growing of chickens, worms, bees, fish and other animals. Both community gardens and communal gardens are forms of "Urban Agriculture

Explanation of the term "Sponsor": All community gardens in the City of Vancouver and Vancouver Park Board are required to be operated by a Non-profit Society as defined by the British Columbia Societies Act. This Non-profit Society would be formally and legally responsible for the community garden. However, there is a provision that a Non-profit Society can "Sponsor" one or more garden groups. For example: a Community Centre Association Board or other Society could sponsor one or more groups to run gardens. The "Sponsor" is legally responsible for the garden. A key role that an umbrella organization could play would be as a "Sponsor" for multiple new community gardens. The term "Sponsor" is used in this questionnaire to describe this legal relationship with the Non-profit Society, gardeners and the civic government

Questions

1) How many years have you been involved in community gardening, communal gardens or other forms of urban agriculture?
   a) Have you been involved in the general advocacy for community gardens, communal gardens or other forms of urban agriculture? Yes/No
   b) Have you been involved in the maintaining of a community garden or other forms of communal gardens? Yes/No
   c) How many community gardens or communal gardens have you been in some way directly involved with? ____
   d) Are you new to starting a new community garden? yes no

2) Have you actively worked with a non profit society or organization to sponsor a new community garden as defined by the City of Vancouver? Yes/No
   a) How many new community gardens, as defined by the City of Vancouver, have you been involved in developing? ____
   b) How many new communal gardens have you been involved in developing? ____

3) What practices and structures are working well for creating new community gardens in Vancouver?

4) What are some advantages of increasing the number of community gardens in Vancouver and other forms of urban agriculture?

5) What are the barriers to building community gardens?
   a) Are there institutional issues?
   b) Are there communication issues?
   c) Are there organizational issues?
   d) What are the 3 most encountered barriers?
   e) What are the key barriers to overcome in order to build more community gardens?

6) What issues need to be addressed to overcome these barriers?
   a) How can the issues be addressed?

An Umbrella Organization: There has been considerable interest in the urban agriculture community to develop an "Umbrella Organization" to increase the number of community gardens and foster other forms of urban agriculture. How an Umbrella Organization is defined and what functions it performs to achieve the stated objective is a key purpose of this research.

Explanation of the term "other systems": There is an assumption that an umbrella organization is the best solution to building more community gardens. In order to be objective many of the following questions give the option to describe other non-umbrella

systems as potential solutions for creating new gardens. The term "other system" is used throughout to describe this option. It is OK to answer to both options ("umbrella" or "other system"). Because some questions are specific to an umbrella not all questions give an option for "other systems". – more effective placement of this explanation here just before they move into the umbrella aspects…

7) What are the advantages and disadvantages of the following models?
   a) A central umbrella organization that "sponsors" and coordinates the development of all new community gardens.
   b) A central umbrella organization that either directly coordinates and "sponsors" new community gardens, or supports others in developing new independently run community gardens.
   c) A loose association of small umbrella like groups that "sponsor" and coordinate the development of community gardens.
   d) A non-umbrella system or "other system".

8) How would your ideal umbrella organization or "other system" work?
   a) Please describe the main ways an umbrella organization or "other system" could navigate the community garden building approval process and other barriers?
   b) In what ways can an umbrella organization or "other system" bridge or work within the civic government and community gardeners.
   c) In what ways can the roles and responsibilities for community gardens be divided between gardeners and an umbrella organization when acting as a "sponsor"?

9) What are the risks, shortcoming or unintended consequences an umbrella organization or "other system" might give rise to?
   a) Should community gardens be free to operate independent of an umbrella's sponsorship? Yes No

10) Aside from acting as an intermediary or sponsor for community gardens, what other roles can an umbrella organization play?
   a) In what ways can an umbrella organization assist in fostering other forms of "Communal Gardening and Urban Agriculture" in general?

11) What are the challenges in developing community capacity and leadership for community gardens?

12) How do you engage individuals and community allies to be part of the community garden capacity building process?

13) Can you think of any potential partnerships or collaborations that an umbrella organization or "other system" could use that would help streamline or ease the community garden development process?

APPENDIX C: FOCUS GROUP QUESTIONS

Part One

1) How many years have you been involved in community gardening, communal gardens or other forms of urban agriculture? ____
   a) Have you been involved in the general advocacy for community gardens, communal gardens or other forms of urban agriculture? Yes/No
   b) Have you been involved in the maintaining of a community garden or other forms of communal gardens? Yes/No
   c) How many community gardens or communal gardens have you been in some way directly involved with? ____
   d) Are you new to starting a new community garden (within a year)? yes no

2) Have you actively worked with a non profit society or organization to sponsor a new community garden as defined by the City of Vancouver (including parks)? Yes/No
   a) How many new community gardens, as defined by the City of Vancouver, (including Parks) have you been involved in developing? ____
   b) How many new communal gardens have you been involved in developing? ____

Part Two

1) What practices or structures are working well for creating new community gardens in Vancouver? You can give one to three answers. 5 minutes.

2a) What are the main barriers to building community gardens?
2b) What issues need to be addressed to overcome these barriers?

Part Three

I have three general models of an umbrella organization that I would like to read out. When I'm done I would like to go back over these one by one and discuss the advantages and disadvantages of each model. I encourage you to discuss the benefits and value as well as concerns over any risks, shortcoming or unintended consequences each model might give rise to?

1) A central umbrella organization that "sponsors" and coordinates the development of all new community gardens. 10 minutes

2) A central umbrella organization that either directly coordinates and "sponsors" new community gardens, or supports others in developing new independently run community gardens. 10 Minutes

3) A loose association of small umbrella like groups that "sponsor" and coordinate the development of community gardens. 10 Minutes