From Activism to Application

Practical opportunities for the food justice movement to create sustainable local food and farmland preservation policies

A case for food systems planning



Nuffield Canada Farming Scholars Sarah Rose Megens, N.Sch. 2010

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List of Abbreviations

ALC

ALR

Table 1.

ALUS	Alternative Land Use Service	
CPRE	Campaign to Protect Rural England	
CSA	Community Supported Agriculture	
FAO	Food and Agriculture Organization	
FSC	Food Secure Canada	
GATT	General Agreement on Trade and Tariffs	
GGH	Greater Golden Horseshoe	
LEAR	Land Evaluation and Review	
LMGP	London Metropolitan Green Belt	
LVC	La Via Campesina	
MMAH	Ministry of Municipal Affairs and Housing	
NPPF	National Planning and Policy Framework	
NPTFGA	Niagara Peninsula Tender Fruit and Grape Area	
OCO	Organic Council of Ontario	
OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs	6
ORMCP	Oak Ridges Moraine Conservation Plan	
PEGS	Payment for Ecological Goods and Services	
UGB	Urban Growth Boundary	
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Number of Farms and Farm Size in Canada

Agricultural Land Commission

Agricultural Land Reserve

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Executive Summary

One of the key attributes of the local food system that the food justice movement seeks to address is the threat of farmland loss to the viability of future food production. Food policy councils seek to create viable local agricultural economies founded on a stable, secure and productive base of agricultural land in their constituencies. Applying a food systems based approach, the rationale of policies endorsed by such food policy councils to support farmland preservation is this: the security of local food provisioning in face of environmental, social and economic threats such as climate change, population growth and peak oil, requires the availability of prime agricultural lands and a thriving farming economy in close proximity to urban populations. Councils can work with other proponents in their communities, most notably farmers and municipal staff to conduct community food assessments and create food systems plans. The information gathered in the food assessment informs the creation of the plan to encourage municipal decisions and programming that address the needs identified in the assessments (food deserts for example) and work towards achieving the community's shared vision of a sustainable food system. Municipal official plans, agricultural plans and specialty crop areas are other planning policy approaches that can assist a community in transitioning toward a stronger, more resilient local food system.

Introduction: Linking farmland preservation and local food systems

"Burn down your cities and leave our farms, and your cities will spring up again as if by magic; but destroy our farms and the grass will grow in the streets of every city in the country."

 William Jennings Bryan, Cross of Gold speech, Democratic National Convention, Chicago, Illinois, July 9, 1896

Although William Jennings Bryan uttered these now famous words nearly 120 years ago, the urgency and tenacity of his message rings true to this day. Securing sufficient supplies of farmland—land with unique characteristics that permit the viable production of fruits and vegetables, livestock, or any other crop—for the future of food production is more critical now than ever before.

The preservation of farmland is at once a straightforward concept with underlying complexities that challenge successful implementation of conservation regimes. It is straightforward in the sense that high-quality farmland, as Bryan dutifully reminds us, is essential for the production of adequate amounts of food— something upon which the survival of humanity depends. As populations continue to explode across the world, we will require ever-greater supplies of food to accommodate this growth—supplies which cannot be met solely on innovative and advanced agricultural technology (Caldwell 1995). Complexities emerge as farmland preservation regimes must account for a dynamic agricultural industry, changes in rural and urban demographics, environmental liability and regulation, trade regulations and market volatility, land use planning approaches, non-farm development in agricultural areas, and for those farms located in near-urban areas, the vitality to withstand urban encroachment.

Since the turn of the century, a growing movement endorsing the availability of locally grown food has leant its support for enhanced preservation of agricultural lands. The motivations for these *local food justice movements* are varied, and often depend on the individuals driving the movement in their local communities, however commonalities have emerged to lend some clarity to the movement's agenda as it matures. Tim Lang, professor at the Centre for Food Policy at City University in London, England, describes the motivations behind the movement as including the emphasis of consumers' rights,

the iterative relationship between human and environmental health, the importance of modes of food production and distribution and the impact that coalitions and focused efforts can have on policy.

Charles Levkoe, from the University of Toronto, synthesizes these concepts to describe the term "food justice movements" as representing "the coming together of a wide range of activists, from farmers to eaters (who) represent a diversified approach that brings together many critical issues in Canada and around the world with a focus on creating a just food system" (2006 p. 89). Charles' colleague at the Toronto Food Policy Council, Gerda Wekerle (York University) is correct to point out that the food justice movement is founded on an "explicit critique of the global food system". She argues that these movements are "place-based" and formed on "a theoretical framing of local initiatives as both the practice of democracy and as a means of de-linking from the corporate global food system" (2004 p. 379).

One of the critical issues upon which the food justice movement focuses is the need for a reliable supply of locally grown, sustainably produced food which is contingent on the existence of a secure base of farmland and a dynamic network of farmers to support it. Food justice movements, therefore, provide a key body of proponents for the creation and maintenance of local food systems reliant on productive and high quality farmland (ideally prime agricultural land) adequately protected from the destructive impacts of non-agricultural development.

The following Nuffield research study will focus on the policy frameworks and strategies through which local food movements operate and will analyze their potential to impact farmland preservation regimes at the local level. Land-use, agricultural, community economic development and social policies will be explored in conjunction—described herein as food policy—particularly as it relates to the creation and maintenance of a sustainable local food system built upon an adequately protected agricultural land base. The paper explores the topic on three fronts. The first section explores the theoretical underpinnings of the local food movement and focuses on three schools of thought: food security, food sovereignty and food systems. This section combines research and information gathered throughout the study area, and highlights only a small selection of organizations or coalitions that exemplify these approaches.

The second section will discuss the rationale behind farmland protection and preservation from a land use planning and policy perspective, and will explore regimes from Canada, the United States and Europe in greater detail. To contextualize the research study, elements of planning policy from the local, provincial or state, and national level will provide insight into how transformation in agricultural practices and food system infrastructure will further enable a rural renaissance in the Canadian country-side. An in-depth analysis into the conditions upon which the success of a local food system characterized by independent producers rests is followed in the third section with a series of recommendations for policy makers interested in pursuing similar models of local food system creation in their own communities. This section will highlight the opportunities for comprehensive community food systems planning at the municipal level. Each of the elements described above will be contextualized with examples based on my Nuffield travel research from visits across Canada, parts of the United States, England, France, the Netherlands and Belgium. Where possible, academic and grey literature has been consulted and referenced to strengthen the arguments contained herein. The research will be framed in its applicability in Canada, acknowledging Canadian policy making practices and legislative structures, however it is hoped that the international audience may be able to make use of some of these ideas as well.

1. Food Policy Frameworks

There are many organizations and policy bodies worldwide that seek to influence food policy at the international, national, regional and local level—this study will provide only a small snapshot of both fledgling and established organizations from across the study region. Each organization is typically equipped with a policy framework that guides the priorities they endorse and the strategies through which these groups seek to achieve change. The following section will outline the commonalities and tensions between three of the emerging frameworks used to influence food policy in Canada and internationally: food security, food sovereignty and food systems. The snapshots characterize individual organizations in more detail and provide references for those looking for more information.

Food Security

Food security, described as a "multidimensional phenomenon" facing individuals, is defined by the Food and Agriculture Organization (FAO) and its associate organizations at the United Nations as existing when

"all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Household food security is the application of this concept to the family level, with individuals within households as the focus of concern" (FAO 2003, p. 29).

The official definition of *food security* thus focuses on the consumptive aspect of food, with little acknowledgment of the productive services required to create adequate food supplies.¹ The foundations of the food security movement emerged as international development professionals sought a twin track approach to address food production and distribution issues in developing countries in order to alleviate hunger (FAO 2003). Efforts to increase food security typically focus on the ability to access a sufficient amount of healthy, high quality food to ensure a healthy lifestyle not compromised by hunger. Barriers to food access can be physical (transportation and ability), social (culture and stigma) and economic (poverty) and many food security activities work to reduce or eliminate these barriers. The critical emphasis for the food security policy framework is on access and ability to consume: all people have the right to be able to acquire suitable food to maintain good health at all times. Policy makers employ the food security framework to guide recommendations that will eliminate hunger and inadequate nutrition among marginalized and impoverished communities through improving access to healthy food.

Spotlight: Food Secure Canada

Food Secure Canada (FSC) is the leading Canadian organization dedicated to the promotion of the principles of food security (described above) and to facilitate the work of associate organizations to do the same.

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¹ Although the food security movement is, in general, attempting to address food supply issues in the wake of the 2008 food crisis that rippled across the developing world through various schemes and funding programs, the description of this crisis is not integral to the current discussion.

FSC describes itself as a national "alliance of civil society organizations and individuals collaborating to advance dialogue and cooperation for policies and programs that improve food security in Canada and globally.

Based in Ottawa, Ontario Canada, FSC is a non-profit, membership-based organization representing national, regional and local organizations and unaffiliated individuals from a wide range of invested stakeholders. The membership determines the priorities for the FSC national agenda, and FSC staff and board members require formal approval from the broader membership prior to advocating publicly or launching projects based on objectives identified at the annual general meeting.

The FSC membership is comprised of national and provincial organizations with a variety of mandates including poverty alleviation, emergency food services, faith-based communities, international development, public health and nutrition promotion, and regional food policy/security advocacy groups. The Canadian Food Grains Bank, the United Church of Canada, Toronto Food Policy Council, and the Organic Council of Ontario (OCO) are listed as members. Notably absent are mainstream farm and agricultural organizations. OCO and FarmStart are the most agriculturally oriented organizations identified on the membership list, however presumably there are many individual farm members involved.

For more information about Food Secure Canada, its mandate, and how to become involved, please visit: www.foodsecurecanada.org.

Food Sovereignty

Chantal Blouin from the University of Carleton's Centre for Trade Policy and Law and her colleagues from the Montreal, Canada based Equiterre argue that in contrast to food security, the food sovereignty framework addresses the conflicts inherent in the production and supply of food, emphasizing the social, economic and ecological rights of producers provisioning the local marketplace (Blouin et. al. 2009). The concept was first

introduced at the World Food Summit in 1996 by an international organization of small land holding farmers that named itself La Via Campesina (LVC). LVC emerged from a peasant movement based in Central America that was resistant to American attempts to globalize and liberalize agricultural markets under the Uruguay Round of the General Agreement on Trade and Tariffs (GATT).

The movement is primarily concerned with defending the right of the state to develop their own agriculture and food policy in absence of the interference from international treaty organizations dominated by rich nations in the developed world. Food sovereigntists emphasize that food and agriculture policy objectives must be defined in terms of sustainable practices, the defense of the family farm and peasant farming systems (in developing economies), social justice and rural development. These policy objectives, however, are most often expressed through the state when negotiating international treaties, trade agreements and human rights conventions (Blouin 2009).

Although the scale of food sovereignty policy objectives tend to focus on international trade policies such as import tariffs and foreign direct investment, the food sovereignty policy framework is clear about the relationship between international policy and local food production. For example, the new global market provisions, endorsed by GATT and opposed by LVC, signaled an increase in "food dumping"—the importation of heavily subsidized commodities at costs below that of local production—threatening the viability of small-scale, sustainable agricultural operations owned and operated by family farmers. The distorted trade imbalance also threatened the loss of local decision-making authority regarding food supply and agricultural management by national and regional governments (Food Grains Bank 2008).

Although proponents of both food security and food sovereignty attempt to address food justice, there is a clear distinction—and at times a bitter tension— between the two concepts. As mentioned, where food security is primarily focused on the consumptive aspect of food, food sovereignty reinforces

"the right of peoples, communities, and countries to define their own agricultural, pastoral, labour, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances. It includes the true right to food and to produce food, which means that all people have the right to safe, nutritious and culturally appropriate food and to food-producing resources and the ability to sustain themselves and their societies." (Food Sovereignty 2002).

Food sovereignty is, in many respects, a radical reaction to the global corporatization of our food system. It is an ethic that seeks to return rights to food producers and build self-reliant local food economies and it is an approach that has been increasingly adopted by food justice movements in Canada and internationally to create policy change at the local level, sometimes in place of food security rhetoric. *Food First,* an American food and development policy think-tank heralding the philosophy of food sovereignty, dismisses the concept of food security as practiced by the FAO and the World Bank, as insincere. Food security, according to Eric Holt-Giminez, the executive director of Food First, is simply a euphemism for yet another mechanism to further liberalize agricultural economies and perpetuate unsustainable agro-industrial production methods that are inherently at odds with the ability of all people to feed and be fed and thereby contradictory to the goals pursued by the food sovereignty movement.

Fortunately, there are attempts to ameliorate the tensions between the two policy frameworks. The food security movement, perhaps best represented by the national organization Food Secure Canada, has recognized that consumption is but one element of a complex network of relationships of exchange and has adopted this viewpoint by incorporating themes of sustainable production. Food Secure Canada has thus reoriented its policy framework towards a more systems based approach by recognizing that "that food producers earn a fair return on their labour, and that food production, harvesting and distribution methods sustain the environment" (foodsecurecanada.org). In so doing, this organization has endeavoured to support a separate, but related initiative, The People's Food Policy Project, which champions the ideals enshrined in the food sovereignty movement (peoplesfoodpolicy.ca).

Spotlight: Food First—Institute for Food and Development Policy, California, USA

Food First is an American organization dedicated to eradicating the injustices that cause hunger. It is considered a leading food think-tank and describes itself as a "people's think-and-do-tank" because it engages in policy analysis, advocacy for policy change, and educating communities and civil society organizations to build capacity and confidence to engage with the institutions and policies that control food production, distribution and access.

The organization is led by executive director Eric Holt-Gimenez and is run with the assistance of six staff, and a host of interns and volunteers. Food First is supported by a board of trustees and 11 trustees, including Raj Patel, author of the acclaimed food justice tome *Stuffed and Starved*.

Food First was formed in 1975 by Frances Moore Lappé, author of *Diet for a Small Planet*, and Joseph Collins. The two were inspired by the notion that much of the dialogue, information, and analysis on hunger and food scarcity is driven (and funded) by a corporate and political agenda reliant on the "hunger myth"—the notion that hunger is caused by food scarcity, rather than inefficient distribution systems. They argue that the corporate food agenda encourages increasing food production volumes to solve global hunger which incidentally also results in record-breaking profits by major agri-food and seed corporations. It's worth pointing out that these record-breaking profits have been evident even during the worst recession in recent memory.

Please visit www.foodfirst.org for more information.

Food security and food sovereignty advocates are perhaps most appropriately considered members of food justice movements, and as such, they offer a number of provocative and progressive policy recommendations to food policy reform. However, as the movements evolve and gain popularity, the terms are increasingly appropriated by political opportunists, thereby compromising integrity and emptied of meaning

(Seedling 2005). As one author points out, it is ironic that the most common proponents of food sovereignty are policy makers, bureaucrats and academics, far removed from small-scale, sustainable, family-operated farms in this country and abroad (Seedling 2005). In this author's own extensive experience working and living within the farming community in Ontario the term food sovereignty has little resonance, whereas the term food security appears to symbolize for producers some of the goals espoused by the food sovereigntists. Terminology employed by the food justice movements can be vague, misused and misunderstood among the general population and the agricultural community alike, and thus requires considerable clarification as the movements evolve.

Food Systems—Reconciling Differences

Although based on a similar premise—the sustained availability of adequate dietary nutrition for individual (or human) consumption—the concepts of food sovereignty and food security are unique in that they highlight different aspects of the food system (consumption vs. production), and emphasize distinct priorities (eradicating hunger vs. self-sufficiency). Furthermore, the two policy frameworks are wrought with tension, particularly between productive-consumptive and global-local relationships. Framing food policy upon the concept of local food systems presents an opportunity to merge key components of both food security and food sovereignty while incorporating the wider components of the food economy such as the economy, environmental sustainability, the built environment, employment, health, and community vitality. As such, the food systems policy framework has emerged as a tool that the broadly described *food justice movement* uses to achieve policy change. According to University of Toronto professor Rod MacRae, the food systems approach is particularly effective at the local level, but it carries implications for national and international policy change, as well.

The *food systems* approach is unique, and often preferred, because it boasts the potential to transcend political agendas and the associated misuse and confusion of terms described above by offering a practical model to address food policy comprehensively, and at the community level.

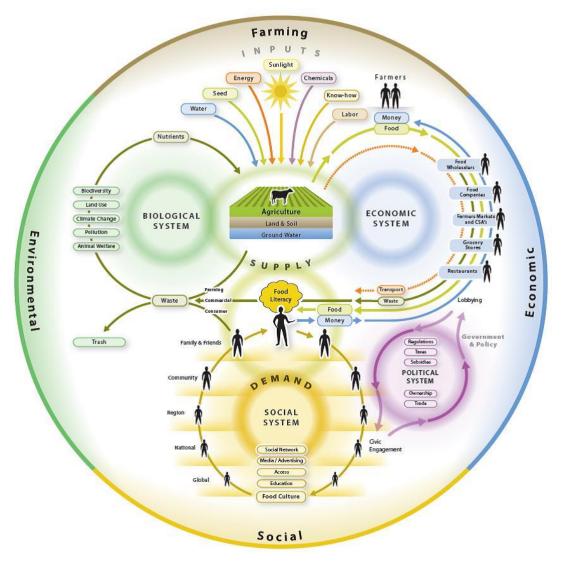


Figure 1. The Food System Map, Nourish Food + Community, 2011, www.nourishlife.org

The food systems framework, depicted above, may be employed to create a forum to integrate the two social movements, while also providing an opportunity to include more conventional perspectives, such as that of the broader agricultural and food processing sectors (the business side), in an effort to establish food policy at the global, national, regional and local levels. This is appropriate because, as University of Toronto's Jennifer Sumner emphasizes, a true understanding of the networks of relationship and exchange and human interaction embedded within the food system and spanning across it, be it globally or locally, is critical when seeking to achieve food

systems change. Figure 1 above illustrates the complexity of relationships and interactions embedded within the food system.

The food systems framework is useful because it enables the input of a broad range of philosophical and political approaches to contribute to a complete understanding of the system it seeks to address. Furthermore, this framework, when properly implemented, has the potential to ameliorate many of the tensions between food security and food sovereignty proponents described above, and between mainline and niche food sectors and production networks (quota poultry or milk and a local food co-op or community-supported-agriculture (CSA) market garden for example), while opening opportunity for a broader debate by including stakeholders from waste management, environmental services, education, workforce planning, and so on. When successful, the disparate groups can identify a common vision for a sustainable food system and deploy their networks to make it a reality. Figure 2 below illustrates the way the food system approach works in conjunction with the social and corporate policy associations.

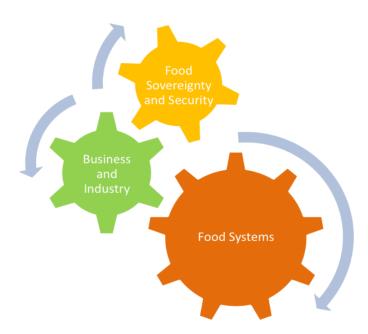


Figure 2. Integrating Policy Frameworks

In addition to incorporating different philosophical treatments to food policy, the food system approach merges a variety of traditional policy bodies into the policy making

process. These policy bodies typically address social, economic, ecological, environmental and agricultural issues in isolation, each endorsing its own perspective on food systems management. For example, the mainstream agricultural policy lobby typically endorses a corporate-economic approach to food policy (MacRae 1999) while social, environmental and health lobbies are beginning to seek policies that reflect the values enshrined in the food security and food sovereignty ethos (Riches 2000). The food systems policy framework, then, provides an ideal model to reconcile the divisive and at times contradictory or counterintuitive development of food policy by the various official policy silos actively engaged in food related policy formation in Canada (MacRae 1998, 1999).

Drawing on theories of ecological organizational design that describe the need for policy making institutions to develop processes that "match or mimic the diversity and complexity of the ecosystem problems they are attempting to solve" MacRae argues that a food systems policy body should reflect the components embedded within it. The goal is to create a policy body that resembles a "miniature ecosystem" sharing "a complex web of relationships, processes, systems and structures" with the system it seeks to address. The critical element is the "organization's ability to fit into the environment in which it works". This will, if properly applied, serve to increase the legitimacy and effectiveness of the policy association.

While both the food sovereignty and food security frameworks acknowledge that food should be addressed as a system, the food systems approach differs in that it avoids prioritizing the needs or political objectives of one stakeholder group over another. It is, in many ways, an approach elevated above political dispositions, focusing instead on the need to take a holistic or comprehensive approach to food systems policy that reflects the "symbiotic relationships, internal consistency and integrity" and mimics the "relationships, processes, systems and structures" of the food system (MacRae 1999). Figure 3 depicts the intersection of policy spheres that influence food policy in Canada through the systems based framework.

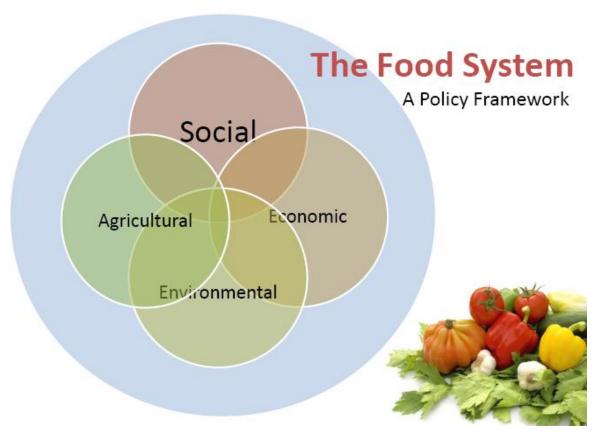


Figure 3. Food systems policy circles

2. Farmland Protection Strategies in Canada, the United States and Europe

Farmland loss is a global issue with serious local implications. It is estimated by the Ontario Farmland Trust that 7.4 million acres of Ontario's farmland has been lost since 1951, with the Central Ontario region losing nearly half of its viable agricultural land (49%) over the same period (2009). The reasons behind this loss vary, but result remains the same: there is less agriculturally productive land in a province expected to grow by upwards of three and a half million people over the next twenty years (Ministry of Finance 2008).

According to the Statistics Canada, Ontario contains 52% of the country's Class 1 soils, and as of 1996, 18% of Ontario's Class 1 soils have been permanently removed from productive agriculture as a result of urban development (Caldwell, Hilts and Wilton 2007; Hoffman 2001). When it is considered that Ontario is home to merely 6.8% of the country's farmland, over half of which is considered *prime agricultural* (Hoffman 2001)

and at the same time the country's largest and most concentrated urban population, which has historically settled in the country's prime agricultural areas, the risks of continued farmland loss for the region are immediately apparent (Caldwell, Hilts and Wilton 2007).

The following table illustrates that this phenomenon is not exclusive to Ontario. Across the country, the decline in the number of farms outpaces the decline in the area of farmland, and there is a general trend toward increasing farm size, particularly in the Prairie Provinces Manitoba, Saskatchewan and Alberta. The only province witnessing an increase in farm numbers (up 2.9%) and an increase in the number of acres of operated farmland (up 2.2%) between 2006 and 2011 is Nova Scotia. All other provinces experienced a drop in farm numbers and farmland area. The statistics do not identify the direct causes of the decline in farm numbers or farmed land, however, the decline may be attributed to a number of reasons, including urban development (Ontario, Alberta and British Columbia); non-agricultural development, including energy projects (all provinces) and the removal of marginal land from production (Newfoundland and Labrador, and Quebec). It is worth pointing out that the sharp decline in farm numbers and jump in farm size occurring in the Prairies is indicative of farm consolidation.

Table 1. Number of Farms and Farm Size, % Change in Canada, 2006-2011

Farms		Area		Average farm size	
number	% change, 2006 to 2011	acres			% change, 2006 to 2011
205,730	-10.3	160,155,748	-4.1	779	6.9
510	-8.6	77,349	-13.5	152	-5.0
1,495	-12.1	594,324	-4.1	398	9.0
3,905	2.9	1,018,075	2.2	261	-0,4
2,611	-5.9	937,829	-4.0	359	2.0
29,437	-4.0	8,256,614	-3.5	280	0.4
51,950	-9.2	12,668,236	-4.8	244	4.7
15,877	-16.7	18,023,472	-5.5	1,135	13.4
36,952	-16.6	61,628,148	-4.1	1,668	15.1
43,234	-12.5	50,498,834	-3.1	1,168	10.7
19,759	-0.4	6,452,867	-7.9	327	-7.4
	number 205,730 510 1,495 3,905 2,611 29,437 51,950 15,877 36,952 43,234	number 2006 to 2011 205,730 -10.3 510 -8.6 1,495 -12.1 3,905 2.9 2,611 -5.9 29,437 -4.0 51,950 -9.2 15,877 -16.7 36,952 -16.6 43,234 -12.5	number % change, 2006 to 2011 acres 205,730 -10.3 160,155,748 510 -8.6 77,349 1,495 -12.1 594,324 3,905 2.9 1,018,075 2,611 -5.9 937,829 29,437 -4.0 8,256,614 51,950 -9.2 12,668,236 15,877 -16.7 18,023,472 36,952 -16.6 61,628,148 43,234 -12.5 50,498,834	number % change, 2006 to 2011 acres % change, 2006 to 2011 205,730 -10.3 160,155,748 -4.1 510 -8.6 77,349 -13.5 1,495 -12.1 594,324 -4.1 3,905 2.9 1,018,075 2.2 2,611 -5.9 937,829 -4.0 29,437 -4.0 8,256,614 -3.5 51,950 -9.2 12,668,236 -4.8 15,877 -16.7 18,023,472 -5.5 36,952 -16.6 61,628,148 -4.1 43,234 -12.5 50,498,834 -3.1	number % change, 2006 to 2011 acres % change, 2006 to 2011 acres 205,730 -10.3 160,155,748 -4.1 779 510 -8.6 77,349 -13.5 152 1,495 -12.1 594,324 -4.1 398 3,905 2.9 1,018,075 2.2 261 2,611 -5.9 937,829 -4.0 359 29,437 -4.0 8,256,614 -3.5 280 51,950 -9.2 12,668,236 -4.8 244 15,877 -16.7 18,023,472 -5.5 1,135 36,952 -16.6 61,628,148 -4.1 1,668 43,234 -12.5 50,498,834 -3.1 1,168

As a result, legislators have made considerable effort to stem the removal of fine soils from agricultural production by establishing farmland preservation regimes entrenched within the framework of planning legislation. Farmland preservation regimes are based on the premise that it is in the public interest to prevent the permanent destruction of agricultural lands through urbanization, and to support farmers and the agricultural economy. Much of this argument hinges on the vitality, diversity and productive capacity of the local agricultural industry and the significant contributions it makes to the regional and national economies.

The University of Guelph's Wayne Caldwell and his peers identify the five overriding reasons that farmland preservation is in the public interest: food production, food security, economic contributions of the agricultural industry, stewardship and natural resource amenities and, the provision of a sustainable food production resource for future generations (2007).

There are several strategies employed to preserve farmland in Canada that reflect approaches adopted in Western Europe and the United States. Each are adapted to their local environment and political regimes, and have experienced varied levels of success. The following section describes a selection of strategies employed in the study areas.

The Agricultural Land Reserve, British Columbia, Canada

The Agricultural Land Reserve (ALR) was established under the Land Commission Act (1973) by the province's governing NDP party. The goals of the ALR are specific to agriculture—namely to preserve agricultural land from urban sprawl and to encourage and foster farm enterprise. The land designated by the ALR is not contiguous, but spread throughout 11.6 million acres of fertile and agriculturally productive land across the province.

Currently governed by the Agricultural Land Commission Act (2002) the region is designated as a controlled agricultural land use zone and administered by the Agricultural Land Commission (ALC), which is divided into six regional panels. The ALC

is an independent body accountable to the provincial government, responsible for managing the inclusion and omission of land from the ALR according to applications submitted by local governments and private landowners. The controlled agricultural land use zoning designation restricts non-farm uses and sub-divisions unless permitted by the Act or by order of the Commission. The Act permits the removal of land from the Reserve, but requires that the total amount of land within the reserve remains the same. This means that land removed (typically from the more fertile south) must be added into protection (which typically occurs in the less fertile north) (Carter-Whitney 2008, p 34).

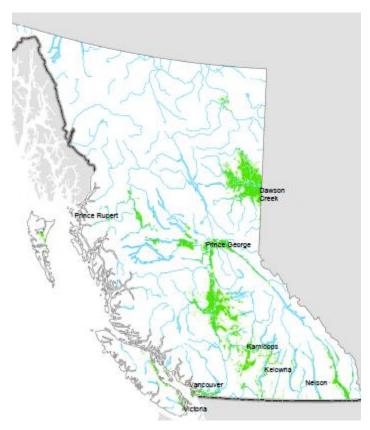


Figure 3. Map of ALR, courtesy of the Agricultural Land Commission, www.alc.gov.bc.ca

The ALR mandate also supports other economic activities deemed compatible with agriculture, including tourism, oil and gas exploration, aggregate extraction, food processing and wine production. The ALR enjoys popular public support (Carter-Whitney 208, p. 35) however a recent report by the Suzuki Foundation has condemned the Commission for the approval of several contentious omissions from the Reserves, and recommends reforms that include calling on the government to develop provincial policies to support agricultural practices that improve the health of communities and the

environment, as well as to improve research on threats to and opportunities for agricultural enterprise in the future (Campbell 2006).

In 2004 a citizens' group formed to increase public awareness of and counteract major threats to the ALR. The ALR Protection and Enhancement Committee acts as a watchdog to ensure that the ALR is properly administered, as well as to advocate for stronger laws and regulations to preserve and improve ALR land and to increase the transparency of decision making processes of the ALC. The Committee has also called for an end to the removal of ALR land (Carter-Whitney, 2008).

The Greenbelt, Ontario, Canada

In 2005, the Liberal Government of Ontario, led by Premier Dalton McGuinty, made good on a popular campaign promise to protect a belt of agricultural and natural land around Canada's fastest growing urban area, the Greater Golden Horseshoe (GGH). The Greenbelt has become the province's premier agricultural land preservation regime, and enjoys immense public support, however it is hotly contested and heavily criticized by some interest groups, most notably the agricultural community.

The Greenbelt Act (2005) empowered the Government of Ontario to designate a Greenbelt Area and establish a Greenbelt Plan to be administered by the Ministry of Municipal Affairs and Housing (MMAH). The Act identifies the main elements and objectives to be pursued by the Greenbelt Plan and enshrines in law the requirement that all planning decisions within the Greenbelt Area must conform to the Greenbelt Plan. A Greenbelt Council acts as an advisory body to oversee the implementation, performance and 10-year evaluation of the Greenbelt Plan.

Ontario's Greenbelt, established under O.Reg.59/05, is the largest greenbelt in the world, covering 1.8 million acres of land which includes the Oak Ridges Moraine Conservation Plan (ORMCP) and the Niagara Escarpment Plan (NEP) areas. The Plan area extends from Niagara Falls in the south to Tobermory in west and Peterborough in the north linking and extending the areas covered by the ORMCP and NEP. The three plans act in concert to limit urban sprawl and land fragmentation, and thereby protect the

countryside from unimpeded development. The policies of the Greenbelt Plan, the ORMCP and the NEP are intended to be complementary, however, in the event that either of the conservation plans conflict with the Greenbelt Plan, the original plan prevails, unless the conflict affects environmental and public health, in which case the most restrictive policy prevails.

The municipalities containing land within the Greenbelt must ensure that their official plans conform with the Greenbelt Plan. In the event that a municipal policy or bylaw is in conflict with the Greenbelt Plan, the Greenbelt Plan policy will prevail. The Act permits the Minister to appoint a hearing officer to conduct hearings on amendments to the Greenbelt Plan, and empowers the hearing officer to advise the Minister on the result of the hearings.

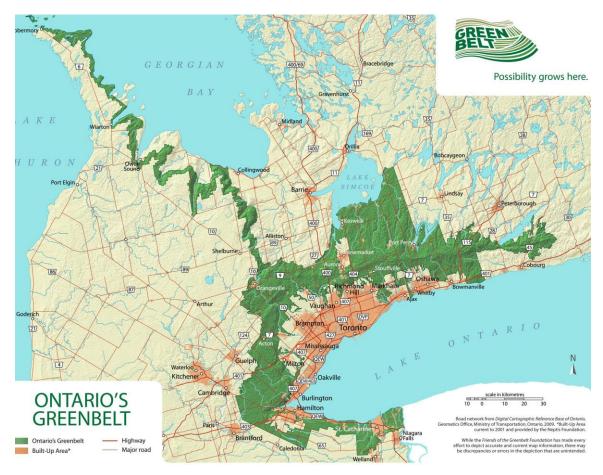


Figure 5. Ontario's Greenbelt, courtesy of the Greenbelt Foundation, www.greenbelt.ca

The Greenbelt Act and Plan operate in conjunction with Provincial Policy Statement (PPS), the Places to Grow Act and the Greater Golden Horseshoe Plan to manage urban growth and development in Ontario and the Greater Golden Horseshoe area in particular.

There are twelve objectives enshrined in the Greenbelt Act and Plan. The first four objectives address the protection and enhancement of agricultural lands and economies, while the remaining objectives refer broadly to the protection and enhancement of natural and cultural heritage, and limit green-field development and urban sprawl. The Plan employs a systems based approach to administer the areas within the designated boundary, commonly referred to as the *Protected Countryside*.

The three policy areas are the *Natural Heritage System*, *Settlement Areas* and the *Agricultural System*. Each system contains a separate set of policies to support the implementation of the Plan. The *Natural Heritage System* identifies and protects the natural and forested areas and water resources required to support biodiversity and healthy ecosystems. *Settlement Area* policies cover towns, villages and hamlets. The *Agricultural System* includes specialty crop land, prime agricultural land and other rural areas facing development pressure. The agricultural lands included within the Greenbelt Plan area were identified using the Land Evaluation and Review (LEAR) formula that included criteria based on soil classification, climate, agricultural productivity, and land fragmentation, and the consideration of projected future growth plans. The *Agricultural System* recognizes and incorporates the existing pattern of agriculturally significant lands identified in the constituent municipal official plans.

The objectives most relevant to agricultural land preservation, to be pursued by the policies within the Greenbelt Plan are:

- To sustain the countryside, rural and small towns and contribute to the economic viability of farming communities;
- To preserve agricultural land as a continuing commercial source of food and employment; and
- To recognize the critical importance of the agriculture sector to the regional economy. (Greenbelt Act, 2005)

The Greenbelt Plan articulates a series of visions and goals prioritizing the protection of farmland against loss and fragmentation, while supporting agriculture as the predominant land use. The Plan seeks to protect *specialty crop areas* and provide opportunity for infrastructure and value-added uses to be developed to support the sector; promote the Niagara Peninsula Tender Fruit and Grape Area (NPTFGA) as an agri-tourism destination and agri-food research centre; protect *prime agricultural areas* through the prevention of further fragmentation loss resulting from re-designation and lot creation; provide flexibility within the agricultural area to allow normal farm practices, agriculture, agriculture-related and secondary uses to support an evolving agricultural economy and to foster long-term investment and improvement in agricultural land (Greenbelt Plan, 2005).

There are three policy areas governing land-use within the agricultural system. Specialty crop areas are identified by the province, while the prime agricultural areas and rural areas are identified in municipal official plans. According to the Provincial Policy Statement (PPS), specialty crop areas enjoy the greatest level of protection followed by the prime agricultural areas and the rural areas. Lot creation, non-agricultural use and urban boundary expansion is strictly prohibited in specialty crop areas, but normal farm practices, agricultural uses and agricultural-secondary uses are permitted and encouraged, and new land uses must comply with the minimum distance separation formulae. Land designated as specialty crop area may not be re-designated for as long as the planning regime exists. Prime agricultural area policies also prohibit non-agricultural use, but promote and encourage agriculture, agriculture related and secondary use activities. Lot creation is restricted but permitted under a set of parameters and new and expanding livestock facilities are permitted but shall comply with minimum distance separation formulae.

The objectives emphasized by the Greenbelt Act and the policies enshrined within the Greenbelt Plan are laudable. Indeed, one would be hard pressed to argue with the motherhood statements that articulate the objectives the Greenbelt is intended to achieve. Despite this, the Greenbelt legislation, and the government that enacted it, is subject to increased scrutiny and severe criticism primarily from agricultural interest groups, but also from a wide range of stakeholders including some members of the planning community.

Criticism of the Ontario Greenbelt

Complaints documented by the author during a series of conversations exploring the impact that the Greenbelt has had on agricultural practices since the inception of the legislation include allegations of political corruption; the lack of scientific formula included in the evaluation criteria used to define boundaries; a concern that the legislation revokes individual property rights; the belief that the Greenbelt adversely affects property values and increases the cost of borrowing; the impact of leap-frog development outside of the Greenbelt boundary; improper management of white-belt agricultural land and the suggestion that most land omitted from the Greenbelt Plan in the white-belt is already held by development corporations; the suggestion that agricultural land preservation was used to sell the Greenbelt idea, but in practice natural heritage protection takes priority; the allegation that consultations among agricultural interest groups was perfunctory in nature and generally ignored; and the insistence that the government has done little to support the viability of agricultural enterprise, regardless of the generous lip-service paid to farmers by the Hon. Ministers of Agriculture.

It is clear that there is a general sense of disenfranchisement with the Greenbelt legislation among the stakeholder group that is supposed to benefit from it the most: the farmers. Furthermore, it is not clear that the Greenbelt legislation has been successful in realizing the lofty goals stated above. While those consulted agreed that the protection of agricultural land is paramount, and should be pursued by the government, a very small minority expressed content with the effectiveness of the current legislation.

Greenbelt agriculture is unique to the province, and has been experiencing accelerated trends of decline, most notably in livestock production (Moreau, 2010; HCA, 2010). So while the Greenbelt Plan may be successful in truncating development and limiting farmland loss, it is not clear that the province has supported the viability of the industry in any significant way, and farmers are feeling the pinch. As one Niagara Region municipal councilor stated, "The concept of the Greenbelt is positive, but what we're missing is the action plan to meet the objectives. We have no good food policy for the province; we have no good agricultural policy for the provinces...The objectives of the Greenbelt have never really supported the economy or the stability of the farmer." After agreeing that the notion of the Greenbelt is positive, however flawed in

implementation, a local farmer remarked, "What we have to do is make the Greenbelt work. It has to be viable, farmers need to be able to make a living (if we are to stay on our land) and right now that's not the case."

Many participants questioned the purpose of protecting farmland but not farmers, and challenged the government's decision to demarcate and protect a limited amount of land that is not considered the best quality land in Ontario, and not all farmland in the province. The conversations reaffirmed that the Liberal government has lost the trust and faith of the agricultural constituency as a result of the Greenbelt legislation, however, more research is required to further understand the impacts, positive and negative, that the Greenbelt may have had on the agricultural industry within its borders.

Discouragingly, neither MMAH nor the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) had accurate agricultural statistical data upon which to evaluate and measure the success of their proposed policies before implementing the plan. For example, research conducted by the Friends of the Greenbelt Foundation suggested that there are "more than 7000 farms" in the Greenbelt (Petrie 2008, p. 1), while an OMAFRA presentation indicated that there are over 8000 (Turvey, 2006). In reality, there are 6251 farms in the Greenbelt (Moreau, 2009). It is this author's opinion that the government and the Foundation's lack of fundamental knowledge of the agricultural economy within the Greenbelt is a troubling indication that the province had collected limited reliable information about the farming community prior to implementing the Plan, and has yet to collect bench-mark data to monitor and evaluate the success of Plan in meeting its objectives. Currently, the University of Guelph's Rural Planning and Development program is the single institution with accurate and up-to-date agricultural census data regarding the specific boundaries of the Greenbelt.

The Neptis Foundation reaffirms many of the concerns articulated by the farming community above, pointing out that "most of the (Central Ontario) region's environmentally sensitive lands and features, and much of its prime agricultural land, lie outside the proposed Greenbelt" and could experience increased development pressure (leap-frogging). (Neptis 2005 p. 2). Recent development patterns affirm that this is happening, especially in Simcoe, Halton and Brant Counties. The Foundation also reinforced the need to support the Greenbelt Plan with a range of policies that will

support agricultural activities while acknowledging that "land protection is the first, essential step. Other farm-friendly policies are pointless if the land base is gone." (Neptis 2005, p. 6).

The Urban Growth Boundary, Oregon, USA

An alternative method of protecting agricultural land is to fix urban boundaries as a legal border separating urban land from rural land. Rather than identifying areas of land where development is restricted, urban growth boundaries surround areas of land within which development is permitted. This is the strategy, founded on the principles of "smart growth", pursued by the state of Oregon. The border drawn around the urban area contains projected growth. The Oregon Urban Growth Boundary (UGB) was established in 1979 with the intent to protect agricultural and forested lands from urbanization, as well as to promote greater efficiency in land-use, and to develop the urban core. The UGB is integrated into the statewide planning program through the Comprehensive Land Use Planning Coordination Statute, the Local Government Planning Coordination Statute and the Organization and Government of Cities Statute which together form a comprehensive and formal relationship between state and local government that requires local governments to conform to the plan. A key aspect of these planning regimes is the emphasis of statewide coordination between the regions.

Oregon state law requires that a fixed urban boundary surround every city in the state, and that urban expansion beyond the boundary is strictly prohibited. Development may only occur within the defined area. The UGB is reviewed every five years, during which time a boundary expansion may be considered, to meet a 20-year supply of land to accommodate future population growth. Boundary expansions are only considered where there is a sound need, as defined by the state, and development on agricultural land may only be considered after efforts to intensify within the UGB are exhausted. An advantage to concentrating growth within a defined area is that it allows the municipality to direct infrastructure spending to improved transportation corridors and public transportation services rather than on the construction and extension of new roads. Additional legislation under the Land Conservation and Development Commission severely restricts fragmentation of agricultural land outside the boundary into residential

parcels. The UGB enjoys popular public support and has been endorsed by both Republican and Democrat governments, however, the most persistent and serious threat to the UGB is the need for affordable housing. This argument is debated contentiously between developers and home builders on one side and proponents of the UGB on the other. There is currently no data to confirm that Oregon is facing an affordable housing crisis, according to one analyst (Carter-Whitney, 2008).

Farmland Conservation Easements, Eastern States, USA

One alternative method for farmland protection is an approach which has traditionally been used in pursuit of natural and cultural heritage protection: conservation easements. A conservation easement is a legal agreement between a landowner and a conservation agency, typically a local or state government or a private, non-profit land trust, in which the development rights from the landowner's private property are severed and sold or donated to the conservation agency in return for the conservation of the land. Conservation easements are one of the dominant tools used for private land conservation in North America.

The University of Pennsylvania's Tom Daniels describes farmland preservation as a voluntary program through which landowners agree to place limitations on the use of their land to include only farming activities and other open-space or natural heritage functions in return for financial reimbursements and/or tax benefits. These agreements rely on a legally binding contract, called a Deed of Easement, which describes the limitations or restrictions of use and may include clauses that prescribe agricultural practices on the land. The Deed is signed by the proponent landowner and the conservation agency and filed with local government authorities. The Deed runs with the land in perpetuity and the restrictions apply to all future landowners holding title to the parcel of land.

Easements can be overturned at the will of the local government agency exercising its power of eminent domain to declare the land for public use, such as the construction of a transportation or energy corridor. A Deed of Easement may also be dissolved if the conservation agency, fails to monitor the farmland for compliance with the terms of the Deed.

These legal arrangements enable farmers to raise money from the sale of a conservation easement rather than through the sale of land for agricultural or non-agricultural uses (development, industry or rural estate, for example). This is an attractive alternative for a farmer who would otherwise consider the sale of land to fund his or her retirement. Of course the cash raised can also be reinvested into the farm operation, or used for another purpose, such as sending children to school, or covering medical expenses. After the easement is sold, the land is restricted to agricultural use, but retains value as farmland. The land usually becomes more affordable for other farmers to purchase and operate in the area, particularly if the farm is located near a high-pressure development area.

There are two main strategies through which state governments support the purchase of Conservation Easements from landowners. Maryland and Pennsylvania issue grants to local county governments, which matches funding, with which the local authorities purchase easements from landowners. The state department of agriculture makes individual arrangements directly with landowners seeking to protect their land in smaller states such as Vermont and Delaware.

One aspect of applying conservation easements on farmland that could potentially cause issues is that easements could create a 'leap-frog' effect. If, for example, every farm parcel surrounding a growing settlement area was 'protected' with an easement, the settlement area would be forced to grow upwards, a positive impact, but then over and beyond the protected farms should more lands be required; even if lands were designated and zoned for urban uses, an easement could prohibit their development. Another fundamental question is whether the Trusts that apply conservation easements on land are in fact operating with a strategic vision in terms of land preservation or are protecting lands randomly with little, if any, efficiency (Daniels and Lapping, 2005).

Spotlight: The American Farmland Trust, USA

The American Farmland Trust (AFT) is "a national conservation organization dedicated to protecting farmland, promoting sound farming practices and keeping

farmers on the land." The Trust collaborates with farmers, conservationists, policy-makers and other proponents to help secure viable agricultural land for the production of fresh food and the provision of rural amenities, such as naturalized wildlife corridors and pastoral landscapes.

AFT was founded in 1980 and has since protected more than three million acres of farmland across the United States. The organization conducts research studies and releases reports in addition to facilitating the creation of Conservation Easements between individual proponents, and advocating for enhanced legal standing and meaningful application of existing easements and other farmland protection arrangements. For more information, please visit www.farmland.org.

Spotlight: The Ontario Farmland Trust

The Ontario Farmland Trust (OFT) is a charitable organization that has utilized conservation easements to implement farmland protection. The Ontario Farmland Trust is non-governmental, non-profit organization that was established in 2002. Since that time the Trust has built relationships with farm groups, published several papers and a book on farmland protection, and advocates for sustainable agricultural and rural land use policy that promotes farmland protection and preservation in Ontario. Easements negotiated through the Trust are registered on-title with the farm property and cannot be removed without consent of the landowner and the Trust, regardless of whether the farm is sold.

The Ontario Farmland Trust currently holds three farms under protection: the 97acre Belain Farm, Town of Caledon, Peel Region (which is also included in the Greenbelt and Niagara Escarpment Commission); the 141-acre Hindmarsh Farm, south of the Town of Goderich, Huron County; and the 50-acre Samuel-Stevens property, north of Milton, Halton Region. More information about the Ontario Farmland Trust and the protected farms be found can at www.ontariofarmlandtrust.ca.

Groen Hart, Ranstad, Netherlands

Het Groen Hart is a 182,677 hectare (451,404 acre) region of agriculturally and environmentally significant land and water surrounded by five large Dutch cities, known as the Randstad Ring. The contiguous urban development of Rotterdam, Den Haag, Leiden, Haarlem, Amsterdam and Utrecht virtually surrounds the Groen Hart (Green Heart), although there are several mid-sized and smaller cities located within its boundaries. Groen Hart contains approximately 5% of the total land mass of the Netherlands, and nearly 75% of the land contained therein is used for agriculture. The area known as the Randstad includes the built environment of the five major cities and the area contained within it, and is home to 8 million people—nearly half the entire population of the Netherlands.



Figure 6. The Green Heart, Netherlands, courtesy of The Harrison Studio, www.theharrisonstudio.net

Since the 1950s, the Dutch government developed policy to preserve the rural character and agricultural vitality of the region by placing limitations on urban development (including residential, greenhouse agricultural, and industrial) in the five large cities within the Randstad Ring, thereby strengthening the boundary between the rural and urban landscapes and encouraging dense mixed-use urban design concepts. Compact living and working spaces accommodate a small country of tall people who are avid users of active and public transportation and global leaders in sustainable lifestyles. The restrictive development policy builds upon policy developed in the 1980s to enhance the agricultural and environmental integrity of the area, although the area was previously considered uninhabitable due to its marshy terrain, and had not been historically preserved for its agricultural or environmental value. The nature corridors, known as "Rijksbufferzones" were originally constructed to separate the Randstad cities, despite their current function. The Groen Hart was established as a nationally significant landscape in 1988 through the policy document The Fourth Report on Spatial Development in the Netherlands. In 2006 the Dutch government developed the National Spatial Strategy that detailed policy tools to improve the management of the region and further define urban planning policies to protect and enhance the agricultural and natural areas.

While other major land protection regimes are used to stymie urban sprawl and create belts of green space around cities, the Green Heart protection policies seek to conserve the land within the country's largest concentration of residential and industrial development. This unique scenario renders the Green Heart as the convenient development land, and prime residential real estate, thus placing significant pressure on local governments to develop within it. It is worth noting that the Netherlands is one of the smallest, most densely populated and most agriculturally productive countries in Europe. The national commitment to maintaining the integrity of the region has prompted the development of a new high-speed rail line beneath the agricultural area, to avoid undue above ground development. The Ministry of Housing, Spatial Planning and the Environment is a national department that administers land use planning and development for all of the Netherlands, carrying on a long tradition of intentional urban design.

The London Metropolitan Green Belt, London, England

English land designated under Green Belt protection covers over 1.6 million hectares (3.9 million acres), or nearly 13% of the country. The London Metropolitan Green Belt (LMGB) is one of 14 such plans in England, and is the country's largest, covering 30% (484,173 hectares) of the total protected area.

The Metropolitan Green Belt, also known as the London Green Belt, was precipitated by the enactment of the Green Belt (London and Home Counties) Act in 1938 by the Greater London Regional Planning Committee. The early version of the Act encouraged local authorities to protect open space surrounding the metropolitan region through land purchases and by entering agreements with landowners that would bar development and maintain green and open spaces. The Green Belt Act was followed in 1947 by the Town and Country Planning Act which enabled other local administrations in the United Kingdom to develop their own green belts within their planning regimes as well.



Figure 7. The London Metropolitan Greenbelt, courtesy of Welwyn Hatfield, www.welwynhatfield.co.uk

In England and Wales, the implementation and management of local green belts is directed by the National Planning and Policy Framework (NPPF), enacted in 2012.

The Framework replaces the former Planning Policy Guidance Note 2: Green Belts, and is part of a national strategy to reform the planning system by improving access and reducing complexity to national planning rules and guidelines. The NPPF is administered by the Department for Communities and Local Government and was released in March of 2012. Enshrined in the Localism Act, 2011, the NPPF falls under the policy direction "Making the planning system work more efficiently and effectively". The NPPF provides guidance to local authorities on when and how to permit development within green belt designated land, and discourages development unless it is proven that the merits of the proposal exceed those of leaving the land within the protected area. According to the Department for Communities and Local Government 2012 statistical release, there were just 130 hectares of land removed from the Green Belts nationwide between 2011 and 2012—less than 0.01% of the entire Green Belt area.

Green Belts in the United Kingdom are designed and intended to truncate urban sprawl and preserve open spaces in perpetuity. The five functions, as defined by the Department are:

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the settling and special character of historic towns; and
- To assist in urban regeneration by encouraging the recycling of derelict and other urban land (Department 2012).

Nearly 92% of the land contained within the Green Belt is undeveloped, but only 58% of that land is employed agriculturally, whereas 71% of all land in England is agricultural (CPRE, 2010). Of the remaining 42% of land within the designated area, much of the land is occupied by recreational spaces (golf courses) and non-agricultural animal housing (catteries and horses).

Agriculture does not typically enjoy premier standing for land use in the LMGB in the view of the local planning administrations or the general public, according to research conducted in 2009 by the Campaign to Protect Rural England (CPRE), although given the national rise in interest for locally produced food, priorities may shift

over the next several years. When polled on which Green Belt activities are most often enjoyed or intended to be enjoyed, recreation ranked ahead of local food, however the majority of respondents in each of the three regions covered by the LMGB reported a preference in buying food produced within the Green Belt, compared to that produced outside the boundaries (CPRE 2010).

The City of London is under extreme growth pressures, and is commonly known as a global city within which flight capital (from depressed economies such as Russia in the past and now Greece) is invested in high value properties as a tax shelter. According to housing and planning consultant Colin Wiles, London will need to accommodate up to 2 million more people in 1 million homes within the next twenty years (although he does not account for the prevalence of absentee home ownership). The market is already very tight and prices in the city are notoriously high, fuelling arguments for the removal of upwards of 100,000 acres of Green Belt lands to accommodate the burgeoning population. The NPPF advances the ideal of building on marginal land or brown space, but some critics allege that this could be problematic as these spaces are not suitable locations for pleasant residential neighbourhoods and would contribute to sub-standard living areas and a certain kind of slum development. The next few years will be crucial to determine how the City of London and the London Metropolitan Green Belt will weather the rather unpleasant economic circumstances of the country to fuel growth and the potential for homeownership, and whether the population growth projections (a fickle planning tool to begin with) will be accurate. Ever vigilant, responsible planners and policy makers are quick to recognize that it is easier to build homes on farmland than it is to restore farmland on former residential lots.

Potential Reforms to Enhance Farmland Preservation

Crucial to the success of farmland preservation strategies in Canada and the study region is the value that the general public ascribes to food and, by extension, the lands that produce food. This economic, environmental, social and psychic value must be increased to secure the agricultural land base required for future production. Canadian governments appear to be ahead of the curve, with each party at the provincial and federal level in an apparent race to reaffirm their commitment to rural

Canada by promoting their own version of a local food act, and engaging in public conversations about the value of agriculture in our communities.

Municipal government administrations, however, are in an especially promising position to facilitate local food systems development, education and awareness as these administrations are responsible for community development, research, policy development, program delivery, strategic planning and community consultation. Thus, as suggested by Toronto based Harriet Friedmann, the incorporation of food systems planning into the broader land use planning practice does not require additional service provision but rather is an extension of service provision. In addition to the social, environmental and economic benefits that local food provides to a community, local farmers could benefit from the opportunity to integrate into local food networks and remain viable on a smaller-scale rather than allowing the market to force them into large scale, industrial-style farming, or conversely, out of the market altogether (Campbell, 2004). In collaboration with the provincial government, authorities could further aid farming operations by reducing (or subsidizing) the requirements for on-farm processing of agricultural goods and allowing direct farm marketing to be more profitable. One example of such is to develop or continue to support financial programs to increase food processing capacity in rural communities; modify quota and food safety regulations to reflect the needs of a variety of sizes of farms, abattoirs and processing facilities to fuel competition; and circumvent the challenges of a one-size fits all approach to policy making, that tends to characterize agricultural policy in this country.

In addition to educating the public on the importance of food and foodlands, the realities of living in the countryside need to be communicated to non-farm populations who may consider relocating to the countryside without a proper appreciation for their neighbours' lifestyles and business requirements. Education on normal farm practices is a proactive solution to reducing conflict between farm and non-farm interests in agricultural communities. Furthermore, the perceived negative implications of small acreages in agricultural areas need to be revisited through future revisions to provincial growth and land use polices and reviews of municipal and regional plans. There is considerable unmet potential to allocate small-lot agricultural zones and special policy areas to accommodate direct to market fruit and vegetable and small scale livestock operations that presents an agricultural buffer zone between sub-urban residential

neighbourhoods and sizeable production agriculture operations, especially animal. Small lots will also provide easier entry into farmland ownership by aspiring new farmers, as well as accommodate fluctuating growth patterns on the peri-urban fringe, if approached carefully, and with the intent to maximize the potential use of land for food production.

Provincial and regional planning guidelines or policy statements could be revised to permit fewer applications for expansion of settlement areas in densely populated areas, and areas designated for population growth, such as those identified by Ontario's Places to Grow Plan. The policy statements could mirror the National Planning and Policy Framework guiding development in the English countryside by strictly mandating—and enforcing—mixed-use urban residential-commercial-industrial zones (possibly to include land designated for urban agriculture and greenhouses) on brown field development sites and in-fill the increasingly unpopular "super centres" that dominate sub-urban landscapes across North America. This type of creative zoning would facilitate the application of the Minimum Distance Separation formulae to non-farm developments as it would allow livestock farms in close proximity to settlement areas to continue operating and expand when necessary.

The development of policies for specialty crop areas such as Ontario's Holland Marsh and the Niagara Peninsula Tender Fruit and Grape Area has proven to be a practical and effective approach to preserving farmland, but there are some questions about the policy's ability to enhance agricultural viability of the operations therein. The success of this approach could be applied in other areas to ensure that the lands required to support the viable production of other agricultural goods, such as livestock, are equally protected. The rationale behind special policy areas to date has been that these lands are able to support a type of agriculture which is not supported elsewhere. With increased non-farm development in agricultural areas, livestock production may become a type of agricultural production which is supported in few regions and may require special policy areas consideration as well.

In terms of economic-based reforms, the governments could consider a redistribution of tax revenue which benefits farmers and in so doing, support the use of agricultural land for agricultural purposes. Levies on the sale of agricultural products is

one approach that could gain momentum as governments explore redistributive financial policies to assist industry recover in the wake of the most recent financial crisis. Furthermore, provincial and municipal governments could create tax and assessment policies that support and encourage value-added, on-farm enterprises such as abattoirs, and fruit and vegetable processing facilities. Due to the limitations of the scope of this project, this line of inquiry must rest, for now.

A related reform would be to re-examine the standards and guidelines that are imposed on on-farm enterprises so as to make them equally efficient and safe but more accessible to small-scale farms. Farmers would also welcome support for programs which recognize the environmental and stewardship services provided by farms to the general public. These types of programs already exist but are in need of financial support. Examples of successful pilot projects include Norfolk County's ALUS (Alternative Land Use Services) and Huron County's PEGS (Payment for Ecological Goods and Services) program. Finally, a system wherein farmers were compensated for the perceived loss of land value as a result of provincial land use planning initiatives such as the Greenbelt, may help in addressing the unrest that occurs when such plans are put in place. The idea here is that while one farm, located outside of the protected area, may be able to be sold for development and thus is of high value, a farm located directly across the road, inside the protected area, is essentially useless in terms of development potential which may impact sale price.

The perceived and real loss of property value, and the sense of different, or preferred treatment among landowners occupying and operating properties in designated areas could be eliminated, however, if the urban growth boundary model such as the one employed in Oregon is applied. Indeed, many farmers consulted in the Agriculture in the Greenbelt focus groups, referred to above, argued that it made little sense to protect only a portion of Ontario's agricultural land (some of which is less agriculturally productive than the remaining unprotected lands). If farmland is to be protected, all farmland should enjoy equal protection through the administration of fixed boundaries surrounding urban areas.

3. Community Food Systems Planning: Linking Farmland Preservation to Food Systems Policy

The food systems policy approach to supporting and sustaining local food economies *and* preserving farmland reflect the dynamics of the food system as encouraged by University of Toronto's Rod MacRae above. The local food economy is, in many ways, a tangible manifestation of the theoretical approaches to food policy reform described in the previous sections. Michigan State University's Getachew Abate describes the local food economy as a concept that emerged as a deliberate attempt to "address and alleviate the social, economic, and environmental concerns related to the global food system" (2008, p. 385). Furthermore, he argues, the local food economy seeks to reorient the food system away from dependence on global sources by emphasizing "self-reliance, integration, sustainable production, processing, distribution and consumption of food to enhance the economic, social and environmental health of a particular place" (2008, p. 385).

Abate puts forward the notion that two schools of thought have dominated the conceptual approaches to understanding local food economies: the European and the North American. The European approach is oriented toward rural economic development and the production of niche and specialty products linked to specific territories or terrains (known in the Slow Food movement as "terroir"). The North American approach has a decidedly more political bent, and is associated with a range of issues related to the environment, the economy and the society of a region although the European approach to local food relies directly on the availability of farmland in specific areas (Abate 2008). These differences contribute to what he describes as "theoretical and methodological challenges in understanding local food economies and their potential dissimilarities among regions" (Abate 2008 p. 388-9). The recession that began in 2008 in the United States precipitated the passionate pursuit of food security and self-reliance that are now influencing European sensibilities as the recession continues to rock the Euro. Economic and environmental pressures appear to have re-heated sovereigntist notions of self-sufficiency and, in many ways, anti-corporatism, and are driving a North American approach to food activism, over the last few years.

Despite the differing conceptual approaches to local food, and the confusion and the tensions embedded within the different frameworks of understanding, Abate identifies the key driving forces behind local food economies as: environmental concerns; *farmland preservation;* health, nutrition and food security; local community and economic development; niche and specialty products; food tradition; and creating green space for recreation and leisure (2008).

Similarly, the original impetus behind farmland preservation in the 1960s and 1970s developed out of a concern for food security, which was, at the time, closely associated with the emerging environmental movement according to the University of Toronto's Michael Bunce. The dominant argument in farmland preservation discourse was based on what Bunce describes as a productivist argument: the continued and unabated destruction of farmland will compromise food production capacity and leave citizens vulnerable to foreign food supplies (1998). As the green revolution in agriculture took hold, and agricultural productivity increased, the perceived threat of urbanization to the food supply weakened. University of Guelph's Bronwyn Wilton recalled Feitelson's (1999) argument that the importance of land as a factor of production is compromised by trends of increasing food surpluses as a result of expanded productive capacity due to technological innovation, and the relatively minimal loss of farmland to urbanization is low at the global level (Wilton 2007).

Lynch refutes the productivist argument that if "conversion occurs because people are willing to pay more for land for residential and commercial structures than a farmer can earn by growing a crop on it, then conversion *appears* optimal" by maintaining that non-market values of the multifunctionality of farmland justify preservation (2008). Furthermore, Lynch identifies that one of the forces driving conversion of farmland into non-agricultural use is the negative net returns for some farm products, and the vulnerability of farm viability in a global economy (2008). As local food economies seek to support the viability of the rural economy, particularly the smaller farms and businesses most vulnerable to consolidation, the role of the local food justice movement in supporting farmland preservation regimes becomes increasingly apparent.

Food Justice Movements and Citizen Initiated Food Policy Formation

The food systems framework is applicable at the international, national, provincial and local level. However, as MacRae points out, the "existing institutional responses at the federal, provincial and municipal levels are inadequate to address fundamental food security problems at the local level and that municipalities, which in many provinces have responsibility for public health, need to take a new approach if long-lasting solutions are to be found" (1999).

One of the key attributes of the local food system that the food justice movement seeks to address is the threat of farmland loss to the viability of future food production. Food policy councils seek to create viable local agricultural economies founded on a stable, secure and productive base of agricultural land in their constituencies. Applying a food systems based approach, the rationale of policies endorsed by such food policy councils to support farmland preservation is this: the security of local food provisioning in face of environmental, social and economic threats such as climate change, population growth and peak oil, requires the availability of prime agricultural lands and a thriving farming economy in close proximity to urban populations. Councils can then work with other proponents in their communities, most notably farmers and municipal staff to conduct community food assessments and create food systems plans. The information gathered in the food assessment informs the creation of the plan to encourage municipal decisions and programming that address the needs identified in the assessments (food deserts for example) and work towards achieving the community's shared vision of a sustainable food system. Municipal official plans, agricultural plans and specialty crop areas are other planning policy approaches that can assist a community in transitioning toward a stronger, more resilient local food system.

Planning Tool: The Food Policy Council

Food system planning or reform can be facilitated by the formation of a local food policy council. As of 2012, food policy councils have been formed in well over fifty North American cities. The rate of formation of said councils or the adoption of local food charters (a common first product of the councils) is frequent, and an up-to-date database of municipalities that have an iteration of such an organization does not exist. These

citizen-based policy bodies are often the result of a grass-roots appeal for more sustainable food system policies and planning strategies. Food policy councils are frequently formed when there is a community-wide desire to broaden the discussion on community food issues beyond access and production (Blay-Palmer 2009).

Built on the premise of inclusivity, a broad mix of stakeholders are integrated into the policy formation process, thereby reducing the potential for one interest group to dictate the terms of food system management for the entire community. This aspect of the policy association contributes to its legitimacy to develop policy and legislation that will be appropriate to the local environment. By incorporating the policy body within the municipal political system, this model of policy formation attains decision-making authority and can have a direct impact on important municipal planning and policy documents such as official plans and budget allocations (Hamilton 2003).

According to Toronto's Gerda Wekerle, integrating a food policy body into the municipal political structure enables the food justice movements and others to engage with municipal planners, and advise on areas relatively new to planning practice. Municipal planners interests in food system design and policy are embryonic, at best, and tend to be narrowly employed in determining the location of food services and community gardens, food production facilities and farmers' markets. Economic development officials in rural communities may also focus on the creation of business improvement schemes intended to diversify and strengthen the local economy, such as developing a restaurant entertainment area or maximizing agri-tourism potential (Wekerle 2004).

Input from the food policy council could serve to expand food system planning activities to include the examination of the effectiveness of emergency food service provision and the sources of poverty and hunger in a community, location and design of communities to ensure adequate healthy food provision and urban agriculture activities, and the redesign and location of schools to accommodate healthy food choices and food production learning opportunities, development of sustainable local food economic systems and the protection of agricultural lands from the destructive forces of urban encroachment (Pothukuchi and Kaufman 1999, 2000). Councils can also advise municipal officials on the "inter-relation between different parts of the food system and

the need for coordination and integration of actions if policy goals are to be achieved" (Hamilton 2003, p 443).

Food policy councils can further advance municipal decision making by developing a model for citizen based policy making and grass-roots democracy that can have impacts far beyond the food system. Engaging with a food policy council has the ability to "increase the confidence, political efficacy, knowledge, and skills of those involved" (Levkoe 2006, p. 90) which can translate into citizen participation in other policy spheres. Wekerle contends that food justice movements, when endowed with influence through food policy councils, can facilitate progressive and transformative planning practices:

"Food justice movements, as place-based movements engaged in local organizing and community development, represent an engaged citizenry that should be of interest to urban planners focused on various forms of citizen planning. Food justice movements are also exemplars of networked movements, incorporating everyday resistances, oppositional practices, and state agencies, which shape policy processes and outcomes at various scales" (Wekerle, 2004 p379).

The food policy council provides an interesting local forum for a broad debate about what has caused the failure of the food system to meet the needs of the people it should be designed to serve. It is critical, in order to retain legitimacy and have an impact on higher-order agricultural policy, that the council seek to engage genuine and positive participation and endorsement from the mainstream agricultural community. In the experience and opinion of this author, too often these councils and other food justice movements operate in the absence of the broader agricultural community, preferring instead to parlay with representatives of the niche and alternative farmers, who usually already endorse the same set of values. On the same note, it is likely that alternative and small-scale farmers are more attracted to and comfortable working in urban and official arenas, further limiting the outreach potential.

The food policy council must strive to build trust within the agricultural community, and rebuild bridges and networks of association between rural and urban

communities in order for this scheme to achieve what it is truly striving toward: comprehensive change that promotes sustainability within the food system. Without the full endorsement of the agricultural community, it will be simple for legislators to dismiss progressive food systems policy as not representative of the will and desire of producers, and rest easy on the business-as-usual agricultural policy. When urban, rural and agricultural Canadians begin to ally on a platform for comprehensive food systems change that will benefit producers and consumers financially as well as culturally, socially and environmentally, only then will we see a true change in the way that we eat. The food policy council presents a wonderful opportunity to launch this social transformation.

The broad mandates embedded within food policy are supported by a series of objectives which inform the policy initiatives and other activities that the council intends to work toward. Again, these objectives vary by municipality and are tailored to the specific needs of the community and the political climate of the community. Council objectives, to be true to the systems approach to policy making, should span a range of policy considerations including human and environmental health, local economic development, emergency food provision, and creating and sustaining multi-sectoral partnerships and networks to adequately address emerging food system issues.

The food policy council thus presents itself as an innovative instrument for policy change at the municipal level. Should the policy council identify that the creation and maintenance of family farms within the local food system is a community priority, this formal association may advance policy recommendations that support farm viability through planning and economic development programming. The food policy council also provides a forum for community discussion on the relationships between rural and urban residents, and the role of agriculture and food production within the community. As a hub of a large and dynamic social network, the food policy council is an exciting way for municipalities, farmers, and eaters to begin to re-imagine how communities produce, distribute and consume food in an environmentally, economically and socially sensible way.

Unfortunately, there is a lack of formal evidence evaluating the success of civil coalitions such as food policy councils in creating, supporting or sustaining viable local food economies in North America. While there is tremendous support for the strategies and tactics taken by food justice movements to enhance local food economies, little comprehensive analysis has been conducted to prove that these coalitions, or projects, are effective in achieving their mandates (Blouin et. al. 2009). It cannot be disputed, however, that these councils and associated food justice associations play a significant role in the creation and maintenance of sustainable local food systems and farmland preservation regimes upon which these local systems will depend.

Planning Tool: Community Food Assessments and Plans

Community food assessments and plans are formal approaches built upon the principles endorsed by and the elements enshrined in the food policy council, but are not necessarily contingent on their existence. A municipality may engage in a community food assessment and use that information to develop a plan in absence of a local food policy council, however, in many instances food policy councils are involved. Food policy councils may support the assessment and plan as a function of the municipality itself, as an official committee of city council (such as the Toronto Food Policy Council or the Hamilton Community Food Security Community), or as an agency of civil society (such as the Waterloo Food Round Table).

Community food assessments are built upon the food systems framework, incorporating as many of the different elements of the food system—from production through to waste management—as necessary. Food assessments seek to establish baseline information about the status of the local food system, although the data collected and the methods of collection can vary from community to community and can be influenced by the project budget—the bigger the budget, the more information can be collected. These projects highlight the collaborative process between the different stakeholders in the food system and examine as broad a range of food issues as their budget and time will allow. The completed assessment will guide decisions on a range of public issues from child welfare, education, environment, public infrastructure, land use planning and economic development. Since the assessment is relevant to so many different departments and community agencies, it is helpful if the assessment is

conducted from the auspices of local government and that the stakeholders share a sense of ownership over the process and the results. The involvement of the agricultural community in such an endeavor is paramount.

Food assessments evolve over four distinct phases. The first phase, research, focuses on identifying all of the community's food related resources and assets. The second phase involves the declaration of the community's vision for a healthy, sustainable food system in the future. The third phase turns to identifying community priorities and developing strategies to achieve the ideal food system, sometimes referred to as action plans. These plans are also articulated as community food systems plans. Finally, in the fourth phase the action plans are implemented, monitored and evaluated for success.

Community food assessments are driven by a steering committee representing the range of food systems stakeholders referred to throughout this paper. The committee defines the scope of work and the terms of reference for carrying out the assessment. The City of Calgary recently conducted a broad food assessment that included a literature review of contemporary food systems issues and activities; a comprehensive analysis of federal, provincial and local policies and initiatives; a review of best practices; and the identification of key findings, opportunities and barriers to sustainable food systems management. The assessment highlighted a land inventory of arable farmland and food production space within the city boundaries.

The City of Calgary was prompted to engage in such an assessment in response to the absence of clearly defined roles and responsibilities for the three tiers of government (local, provincial and federal) and thus sought to define their own role in order to enhance their own food system in collaboration with other government partners. The City had already been involved in supporting food activities such as community gardens and orchards, emergency food provision and regional land use, as well as sustainability awareness programs.

The process began by identifying the different federal, provincial and municipal agencies that are active within the food system, and described their respective roles. The various functions of each city department as they relate to food were then identified,

in order to clarify to council and the administration how this endeavor was intended to bridge the gaps between the policy silos within the municipal government and between the upper tier governments as well. This was followed by an identification of the community organizations involved in food activities within the city, in order to bridge the gap between civil society and public service. The assessment prioritized citizen participation in the assessment and highlighted a wide range of opportunities through which the research team were able to engage with the public.

Community food assessments and plans identify ways in which achieving sustainable food system can contribute to the overarching goals of the community, often identified through community visions, a planning tool commonly employed by municipalities to identify community priorities and set goals for long-term livability. Sustainable food systems feed into community well-being, environmental sustainability, economic prosperity and livability in the following ways:

- Community well-being: fostering community engagement; supports cultural
 exchange; creates opportunities for festivals and events; supports funding
 programs for emergency food provision and food skills training; increases
 community health and leads to decreased pressure on health services; creates
 recreational activities.
- Environmental sustainability: improving waste management systems and decreasing food waste; creating potential for new green energy technologies; decrease energy use; increase sustainable food production; improve water management and quality.
- Economic prosperity: support local small and medium sized businesses; create
 jobs in food production and processing; provide more choice for local consumers
 and retailers; strengthens local rural economy.
- Livability: Identifies and eliminates food deserts; reduces transportation requirements for food distribution; creates neighbourhood social/commercial hubs; encourages mixed-use zoning and development; enhances community appeal; creates sense of place; improves walkability.

Community food systems plans are formal policy documents approved and adopted by municipal governments to guide decisions that impact the vitality of the community food system. The plans adopt the elements that promote the city's priorities into policies that may be implemented to help achieve the vision identified in the assessment. The plan may also be incorporated into the municipal official plan (described below) and enacted into law.

Spotlight: The American Planning Association (APA) Policy Guide on Community and Regional Food Systems Planning

The American Planning Association has developed an excellent guide on food systems planning that is equally applicable in Canada. A sample of potential roles for municipal planners to play to protect local farmland and farm viability, excerpted from the Policy Guide follows:

- Support preparation of area-wide economic development plans that
 incorporate food production, processing, wholesale, retail and waste
 management activities as well as consideration of the impacts these activities
 have on the local and regional economy in terms of jobs, tax and sales
 revenues, and multiplier effects.
- Support efforts to raise public awareness of the importance of the food sector to the local and regional economy.
- Conduct assessments of prime agricultural lands that will be affected by current and projected development trends.
- Analyze factors that support or constrain the viability of agriculture in the
 region such as high property taxes, access to markets, high cost of capital and
 land use regulations that restrict farmers ability to earn additional income
 through agri-tourism or farm stands. Special attention in this category may be
 given to "agriculture of the middle," i.e. farms that fall in between local and
 commodity markets.
- Develop or modify policies, regulations, and other tools such as agricultural land preservation zoning, purchase of development rights, transfer of

- development rights, and partnerships with land trusts, to protect prime agricultural land.
- Partner with organizations that promote better understanding of farm life for urban dwellers to reduce the urban/rural divide.
- Through plans, state (provincial) and federal agricultural policies and funding, and development regulations, support food production for local consumption, direct marketing by farmers, agri-food tourism, and niche marketing of specialized agricultural products such as wines, cheeses, and cherries.
- Support studies that consider the impact on the area-wide economy of locally
 oriented food production and distribution activities such as farmer's markets,
 food co-operatives, community supported agriculture farms, local food
 processing facilities, community gardens, public markets, niche farming
 enterprises, and other locally sourced food businesses.
- Undertake studies assessing trends in farm consolidation, including underlying factors, to inform plans to support "agriculture of the middle."
- Contribute to the preparation of regional food resource guides that identify
 organizations and businesses that are involved in local and regional food
 production, processing, and retailing, the better to educate the public and
 build links between local producers and local consumers.

The complete guide can be found at www.planning.org.

Planning Tool: Municipal Official Plans

Municipal Official Plans present the ideal opportunity to articulate the community's agricultural goals. During recent years, there has been a great deal of interest in agri-tourism, shopping at farmers' markets, and eating local food; all of which are initiatives an Official Plan can help to support through goals, objectives, and policies (County of Norfolk, 2006). The County of Norfolk has taken such an approach by permitting value-added uses such as processing, preserving, storing and packaging of farm produce; outlets for the retail sale of local farm produce; introduce or expand agritourism offerings; and host agricultural events in agricultural areas. The inclusion of such

policies in the Official Plan is beneficial for several reasons: first, this vision can be implemented through provisions in the zoning by-law such as the allowance of greenhouses in agricultural areas; second, it allows the municipality to use the Official Plan as justification to fund incentive schemes that benefit farmers involved in local food initiatives; and finally, it creates a policy basis for the development of future projects and programs which support the local agricultural industry and in doing so, helps protect farmland. These policies are enabling smaller farmers to diversify revenue streams, increase on-farm revenue generating capital and on the whole, improve the financial outlook for small-acreage high-value-per-acre operations.

Financial investment in local food distribution infrastructure, such as a produce auction, can take a variety of forms. One way in which the municipality can support the viability of farms providing for the local market is to conduct feasibility studies for "food hubs", auction houses and food terminals, and farmers' markets. The municipality can then proceed to support the efforts of organizations and individuals keen to launch these initiatives through supportive zoning, lenience on fees, or through the provision of professional support from the economic development and planning staff. Local food infrastructure is "family farm friendly" and municipalities are in an excellent position to support the creation and maintenance of these facilities financially, and through zoning and by-law considerations.

Planning Tool: Special purpose policy areas for peri-urban agriculture

Special purpose policy areas exist in many forms within the Canadian planning context to allow for exceptional policies to be applied to defined geographical areas with the intent to support or enhance the activities contained within. One of the most relevant and comparable zoning designations used in provincial policy in Canada Specialty Crop Area designation administered by the Ontario Ministry of Municipal Affairs and Housing (MMAH).

A *specialty crop area* is defined in the Provincial Policy Statement (Government of Ontario, 2005a) as an area of farmland designated using a set of evaluation procedures established by the province where certain types of crops, including tender

fruits; grapes; vegetable crops; greenhouse crops and crops from "agriculturally developed organic soil lands" are predominantly grown (Government of Ontario, 2005a, Section 6.0). These special agricultural areas have characteristics that are considered unique and lend themselves to the production of a wide range of products not broadly cultivable in other areas of the province. Suitable soils, special climatic conditions, a pool of farmers skilled in the production of specialty crops and capital investment in the infrastructure required to produce, store and process the crops are among the evaluation criteria used to identify and protect *specialty crop areas*. A different set of evaluation criteria is developed and applied by the province when identifying *specialty crop areas* on a case-by-case basis.

Specialty crop areas are afforded greater protection than other farmland from development pressures, but not from aggregate extraction under the PPS, municipal official plans and other land designation regimes, such as the Greenbelt Plan (Government of Ontario, 2005c). The special status permits planning considerations not universally applied to other prime agricultural areas. These restrictions are not described in detail in the PPS, but as interpreted in official plans, specialty crop areas are protected from the expansion of settlement area boundaries, residential lot creation and non-residential uses. Further limitations on permissible land uses and provisions for programs that support specialty crop areas are outlined in official plans, and the Greenbelt Plan.

There are three specialty crop areas in Ontario: the Niagara Peninsula Tender Fruit and Grape Area, the Holland Marsh and the Special Agricultural Area in Grey County. The Holland Marsh Specialty Crop Area and the Niagara Peninsula Tender Fruit and Grape Area were both identified as *specialty crop areas* according to an evaluation methodology developed by OMAFRA for the purposes of delineating specialty croplands within the Greenbelt Plan area and is now intended for use throughout the province as well.

The Holland Marsh contains 125 farms on 15,000 acres of some of Canada's finest organic black muck soils. Prized for the wide range of horticultural products cultivable in the area, the Holland Marsh also contains a sophisticated network of canals, pumping systems, irrigation systems, storage, packing and processing facilities

indicating an enhanced level of capital investment in agricultural infrastructure for this region. The Holland Marsh is an agricultural powerhouse, contributing an estimated \$1 billion to the provincial economy annually (Bartram, 2007).

Similarly, the Niagara Peninsula Tender Fruit and Grape Area (NPTFGA) contains 100,000 acres of highly productive and extremely valuable crop land within a micro-climate that enables farmers to produce grapes and tender orchard fruit such as cherries, peaches and plums, that are not widely cultivable across Ontario. A 2003 study estimated the total economic impact of Niagara agriculture to be \$1.8 billion annually (Regional Municipality of Niagara, 2003).

The Holland Marsh and the NPTFGA are both contained within the land designated as the Greenbelt under the Greenbelt Act and Plan (Government of Ontario, 2005b and 2005c). The Greenbelt Plan contains policies directing land-use limitations on specialty crop land within the region, which are developed further in the official plans of York and Niagara regions. Considered the highest tier of agricultural land by the PPS, the Plan prohibits settlement boundary expansion, non-agricultural lot creation, and residential lot creation within the specialty crop areas. The Plan does, however, allow the full range of normal farm practices, agriculture and agriculture-related and secondary use activities to continue on specialty cropland. The specialty crop areas are supported by a range of agricultural services and service providers that enhance the viability of the producers located within the area.

While the land-use policies for both the NPTFGA and the Holland Marsh are declared by the Greenbelt Plan the official plans of the Regional Municipality of Niagara, the County of Simcoe and York Region must conform. The municipal official plans can outline more detailed policies to support the special designation, as long as those policies are not contradictory to the Greenbelt Plan or the PPS. For example, the NPTFGA is referred to as the Unique Agricultural Area in the Regional Municipality of Niagara's official plan, even though it is consistent with the land base identified as a specialty crop area in the Greenbelt Plan (Government of Ontario, 2005c). Niagara's OP includes a set of municipal policies that are distinct from the policies for the remaining agricultural land, referred to as Good General Agricultural Area. The Niagara OP differs from the Greenbelt Plan where it extends support for the Unique Agricultural Area

beyond land-use protection, by acknowledging the need to guarantee the economic viability of agriculture in addition to protecting agricultural land in perpetuity (Regional Municipality of Niagara, 2007). By identifying a series of policies that support the commercial viability of the Region's farmers, and articulating a commitment to provide support for farming programs in the absence of provincial and federal support, the municipality has demonstrated the understanding that if agricultural activities are not economically viable, farmland protection will be in vain.

The development of policies for specialty crop areas such as Holland Marsh and the tender fruit lands has proven to be a practical and arguably an effective approach to promoting agricultural viability while reducing the impact of non-agricultural development on our finest soils. The success of this approach could be applied in other areas to ensure that the production of other agricultural goods, such as livestock, are equally protected, promoted or enhanced.

A similar concept to that described above could be useful in enhancing the viability of small farms located in a cluster, constituting a "special agricultural area". A local municipality may find that designating an area of small farms oriented to producing edibles for the local marketplace on the urban fringe could create a "buffer" zone between urban and rural areas. A buffer-zone "special agricultural area" could include zoning by-laws that permit smaller acreage land-holdings, permissive zoning stipulations for investments in value-added infrastructure such as bed and breakfasts, on-farm retail and food service, recreation and education facilities and other consumer- and farm-friendly enterprises.

A "special agricultural area" could potentially serve as a bridge between the urban-residential areas of a municipality and the mainstream large-scale commodity agricultural production more common in this province. Smaller organic farms are less likely to invite grievances from their non-farming neighbours for their "normal" farming practices, given the difference in the nature of their farming practices compared to a larger dairy or hog operation. Common sense suggests that small to mid-scale fruit, vegetable or mixed-crop/livestock operations would co-exist rather peacefully against an urban boundary, as well as beside larger, more industrial style farming operations common in this province. Not only that, but many non-farming residents in the

community may see the amenity value in having a strawberry farm or an apple orchard next door, and welcome their presence within the community.

The "special agricultural area" may be supported further by the incentive schemes referred to above, such as municipal support for farmers' markets and other food distribution infrastructure and eat local policies to further support the viability of the small farms. The creative application of conservation easement schemes, discussed in detail in Section 2, owned and managed by the municipality or a third-party organization keen on preserving farmland would be a suitable approach to further limiting the impact of rural estate establishment on protected farms. Furthermore, if in the long-term intensification of the urban area has reached its limit, the "special agricultural area" could be extended outward, and farms on the urban fringe could be modified to accommodate more mixed-residential developments that incorporate agriculture into the neighbourhood design. This policy change can be advanced within the municipality by the proponents of local food and sustainable agriculture. These proponents have the potential to form very important policy bodies in municipalities and in the province as interest in food and agriculture continues to grow beyond the rural and agricultural communities.

4. Conclusion

This research study explored the relationships between state, provincial and regional governments, municipalities and civil society in the formation of farm-friendly local food policies that create or enhance local food systems. The policies, and their potential applicability within Canada and internationally are viewed as successful mechanisms, taken in part or in whole, that have been designed to enhance and support the viability of farms embedded within the local food economy.

The analysis demonstrated the practical ways through which the energy generated by the food justice movements, as seen through the lenses of food security, food sovereignty and food systems, may be harnessed by local policy bodies and translated into policy directions that promote the health and well-being of a community, the economic vitality of local farms and food businesses and, enhance farmland preservation schemes.

Sustainable food systems planning is a noble endeavor. Done well, it should incorporate the full spectrum of food systems stakeholders and accommodate the entire scale of food production and processing businesses to achieve balance and address the inequalities in food access and economic opportunities, as well as to mitigate environmental and health consequences of a wholly industrialized, heavily processed food industry. Farmers of all disciplines need to be at the table to provide insight of how food is produced, illustrate the challenges and opportunities facing different kinds of agricultural activity in the country and work within their communities to promote farmland preservation.

"Food offers a unique opportunity for learning because it has the power to galvanize people from diverse backgrounds and opinions" - C. Levkoe

Collaborative planning and policy advisory, based on consensus and rooted within the community, can be an effective method of developing sustainable local food systems among disparate stakeholders. The creation and maintenance of a sustainable local food system and a viable agricultural economy has been declared a priority by many Canadian cities including Winnipeg, Hamilton, Vancouver, Edmonton, Calgary, Waterloo, Guelph, Toronto, Halifax, and Sudbury. Through the formation of a food policy council and comprehensive plans to direct legislation affecting the food system, these city councils and municipal departments now have a legal responsibility to incorporate committee mandates into relevant future policy and planning decisions.

It is important to remember that many decisions regarding agricultural practice and food trade occur at the provincial, national and international level, and that many of the agents controlling the policy agenda that reinforces the global food system simply make themselves unavailable to the efforts to integrate a systems perspective into food policy.

As small, family farms vacate the market (and the landscape), larger farms continue to consolidate and scale up, further orienting their products to an international market. This is not necessarily a bad thing, but there needs to be room for both, and it appears that small and medium sized farms focused on local markets are still being

squeezed out, despite the enthusiasm for local food. This trend can have negative implications on rural economies, employment, the environment and human psychology and health—one must not forget the impact that farm foreclosure has on the psyche of rural communities. Many farmers are seeking change in agricultural policy in ways that will benefit the financial and environmental sustainability of their operations and communities, in a way that supports different types and scales of farming equally. The food policy council must endeavour to build alliances within the agricultural community to create political willpower that will enable real change.

Influencing national and international agricultural policy is a daunting task; however, the globalized nature of the agricultural system should not discourage the potential of the local food policies to create meaningful change. Even though the key decision makers in the agricultural industry are elusive and will frustrate any national or international effort to compromise their influence on policy and their hold on power and profits, they rely on the everyday activities of farmers across the continent to support their businesses. Common sense suggests that if food activists and agricultural producers of all stripes can find a common ground for understanding there will be new potential for rural community economic development, and enhanced effectiveness of farmland preservation regimes for future generations.

Works Cited

Abate, G. (2008). Local Food Economies: Driving Forces, Challenges and Future Prospects. *Journal of Hunger and Nutrition*. 3(4):384-399

Bartram, Jessica. (2007). *The Holland Marsh: Challenges and Opportunities in the Greenbelt*. Friends of the Greenbelt Occasional Paper Series. Retrieved from: http://www.greenbelt.ca/sites/ourgreenbelt.ca/files/hollandmarshfinalnewmap.pdf

Blay-Palmer, A. (2009). The Canadian Pioneer: The Genesis of Urban Food Policy in Toronto. *International Planning Studies*, *14*(4), 401-416.

Blouin, C. et. al. (2009) *Local Food Systems and Public Policy: A Review of the Literature*. Equiterre and The Centre of Trade Policy and Law, Carleton University, Ottawa, Ontario.

Bunce, M. (1998). Thirty Years of Farmland Preservation in North America: Discourses and Ideologies of a Movement. Journal of Rural Studies. 14(2):233-247

Caldwell, W. (1995). Rural Planning and Agricultural Land Preservation: The Experience of Huron County, Ontario. *The Great Lakes Geographer 2(2)*, 21-35.

Caldwell, W. & Dodds-Weir, C. (2002). Ontario's Countryside: A Resource to Preserve or an Urban Areas in Waiting? A Review of Severance Activity in Ontario's Agricultural Land During the 1990s. Guelph: University of Guelph.

Caldwell, W. & Dodds-Weir, C. (2003). Farmland Preservation: An Assessment of the Impact of Rural Non-Farm Development on the Viability of Ontario's Agricultural Industry. Guelph: University of Guelph.

Caldwell, W., Hilts, S. & Wilton, B. (2007). *Farmland Preservation: Land for Future Generations*. Farmland Preservation Research Project, Centre for Land and Water Stewardship, University of Guelph, Ontario.

City of Hamilton. (2007). Terms of Reference for the Community Food Security Stakeholders' Committee. Hamilton, ON: Public Health Services.

City of Vancouver (2007). *Vancouver Food Policy Council Terms of Reference*. Vancouver, BC: Board of Health Retrieved from: http://vancouver.ca/ctyclerk/cclerk/20071115/documents/pe1.pdf

County of Huron. (1998). Official Plan. Retrieved, from: http://www.huroncounty.ca

County of Norfolk. (2006). Official Plan. Retrieved from: www.norfolkcounty.ca

Daniels, T. & Lapping, M. (2005). Land Preservation: An Essential Ingredient in Smart Growth. *Journal of Planning Literature*. 19(3), 316-330.

Department for Communities and Local Government. (2012) Local Planning Authority Greenbelt Statistics: England 2011/2012. Planning Statistical Release 30, November 2012. Retrieved from:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/23232/green_belt_2011_to_2012.pdf

Food and Agriculture Organization, United Nations (FAO). (1999). *Cultivating our Futures: FAO/Netherlands Conference on the Multifunctional Character of Agriculture and Land. Scoping Phase. Synopsis: The Multiple Roles of Agriculture and Land.* Rome: Sustainable development Division of FAO. Retrieved from: http://www.fao.org/mfcal/p_scopsy.htm

Food and Agriculture Organization of the United Nations (2003). *Trade Reforms and Food Security: Conceptualizing the Linkages*. Commodity Policy and Projections Service, Commodities and Trade Division, Food and Agriculture Organization of the United Nations. Rome, Italy. Retrieved from: ftp://ftp.fao.org/docrep/fao/005/y4671e/y4671e00.pdf

Food Grains Bank. (2008). Food Soveriegnty and the Foodgrains Bank. (2008). Foodgrains Bank. Retrieved from: http://www.foodgrainsbank.ca/uploads/Food%20Sovereignty%20-%20020109.pdf

Food Sovereignty: A Right For All. (2002). Political Statement of the NGO/CSO Forum for Food Sovereignty. Rome. Retrieved from: http://www.foodfirst.org/progs/global/food/finaldeclaration.html

Friedmann, H. (2007). Scaling up: Bringing public institutions and food service corporations into the project for a local, sustainable food system in Ontario. *Agriculture and Human Values* 24(1), 389-398.

Friedman, J. (1987). *Planning in the Public Domain: From knowledge to action.* Princeton University Press, New Jersey.

Government of Ontario. (2005a). *Provincial Policy Statement*. Retrieved from: http://www.mah.gov.on.ca/Page215.aspx

Government of Ontario. (2005b). The Greenbelt Act. Retrieved from: http://www.e-laws.gov.on.ca/html/statutes/english/elaws statutes 05g01 e.htm

Government of Ontario. (2005c). The Greenbelt Plan. Retrieved from: http://www.mah.gov.on.ca/Page189.aspx

Hamilton, N. (2003). Putting a face on our food: How state and local food policies can promote the new agriculture. *Drake Journal of Agricultural Law.* 7(2).

Hilts, S. & Caldwell, W. (2005). Farmland Preservation: Innovative Approaches in Ontario. *Journal of Soil and Water Conservation 60(3)*, 66-70.

Hoffman, N. (2001). Urban Consumption of Agricultural Land. *Rural and Small Town Canada Analysis Bulletin*. Statistics Canada. (3)2. Retrieved from: http://www.statcan.gc.ca/pub/21-006-x/21-006-x2001002-eng.pdf

Holt-Gimenez, E. (2009). From Food Crisis to Food Sovereignty: The Challenge of Social Movements. *Monthly Review*. (61)3. Retrieved from: http://www.foodfirst.org/en/node/2505

Lang, T. (1996). *Going public: Food campaigns during the 1980s and 1990s.* In D. Smith (ed.) Nutrition Scientists and Nutrition Policy in the 20th Century London, UK: Routledge.

Levkoe, C. (2006). Learning democracy through food justice movements. *Agriculture and Human Values*. 2006(23): 89-98

Lynch, L. (2008). Desirability, Challenges, and Methods of Protecting Farmland. *Choices: The Magazine of Food, Farm and Resource Issues.* 23(4):16-24

MacRae, R. (1999). Policy Failure in the Canadian Food System. *For Hunger Proof Cities—Sustainable Urban Food Systems.* International Development Research Centre. Ottawa. Retrieved from: http://www.idrc.ca/en/ev-30622-201-1-DO_TOPIC.html

Ministry of Finance (2008). Ontario Population Projections. Retrieved from: http://www.fin.gov.on.ca/en/economy/demographics/projections/demog08

Neptis Foundation (2005). *Neptis commentary on the draft of the Greenbelt Plan.* Neptis studies on the Toronto metropolitan region. Neptis Foundation.

Ontario Farmland Trust (OFT). (2009). Farmland in Ontario: Are We Losing a Valuable Resource? Ontario Farmland Trust Factsheet. Guelph, Ontario. Retrieved from: http://www.ontariofarmlandtrust.ca/sites/default/files/farmland%20loss%20factsheet%20 updated.pdf

Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) (2009). *The AgriProcessing Initiative*. Funding Programs and Support. Retrieved from: www.omafra.gov.on.ca/english/food/industry/agriprocessing-prog.htm

Pothukuchi, K., and J. Kaufman. 1999. Placing the food system on the urban agenda: The role of municipal institutions in food systems planning. Agriculture and Human Values 16:213-24.

Pothukuchi, K., and J. Kaufman. . 2000. The food system: A stranger to the planning field. American Planning Association Journal 66 (2): 113-24.

Regional Municipality of Niagara. (2003). *Regional Agricultural Economic Impact Study*. Retrieved from: http://www.regional.niagara.on.ca/living/ap/raeis_download.aspx

Regional Municipality of Niagara. (2007). *Official Plan.* Retrieved from: http://www.regional.niagara.on.ca/living/icp/pdf/Vol-1_RPP_2007_web.pdf

Riches, G. (2000). We are what we eat: Food security and social policy. *Perception*. Canadian Council on Social Development. (24)1. Retrieved from: http://www.ccsd.ca/perception/241/fs.htm

Sumner, J. (2008). Sustainable Food Systems and the Civil Commons: Beyond the Individualizing Borders of Neoliberalism. Unpublished paper.

Seedling. (2005). Food Sovereignty: Turning the Global Food System Upside Down. Seedling. Grain.org. Retrieved from: http://www.grain.org/seedling/?id=329

Statistics Canada. (2007). The financial picture of farms in Canada. *Connections*—2007. Retrieved from: www.agrifood.info/connections/2007/Statistics Canada (2).pdf

Stoms, D.; Jantz, P.; Davis, F. and DeAngela, G. (2009). Strategic targeting of agricultural conservation easements as a growth management tool. *Land Use Policy* 26(1), 1149-1161.

Sumner, J. (2008). Sustainable Food Systems and the Civil Commons: Beyond the Individualizing Borders of Neoliberalism. Unpublished paper.

Watkins. M.; Hilts, S. and Brockie, E. (2003). Farmland Preservation Discussion Paper Series, A Centre for Land and Water Stewardship Publication. Guelph: University of Guelph.

Wekerle, G. R. (2004). Food justice movements: Policy, planning, and networks. *Journal of Planning Education and Research*, 23(4), 378-386.

Wilton, B. (2007). Farmland Preservation Perspectives. Chapter 1 in Farmland Preservation: Land for Future Generations. Caldwell et. al. eds. Farmland Preservation Research Project, Centre for Land and Water Stewardship, University of Guelph, Ontario. P 13-33