An Investigation of Food Movement Strategies in the Neoliberal Era

by

Ashley McInnes

A Thesis
presented to
The University of Guelph

In partial fulfillment of requirements
for the degree of
Doctor of Philosophy
in
Geography

Guelph, Ontario, Canada

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ABSTRACT

AN INVESTIGATION OF FOOD MOVEMENT STRATEGIES IN THE NEOLIBERAL ERA

Ashley McInnes
University of Guelph, 2019

Advisor: Dr. Evan D. G. Fraser

This dissertation investigates the food movement’s barriers and strategies for changing the Canadian food system. I research the disconnect between two bodies of literature, one that posits that the food movement must engage in political action in order to support food systems change, and the other that the food movement alone has had little impact on policy change. In light of this tension, I utilize sustainability transitions theory to examine barriers to food movement engagement in policy change, and apply a politics of the possible framework to investigate food movement strategies. In this way, I ultimately examine the ways in which the food movement can work within the current system and simultaneously support systemic change. The overall aim of this research was to examine food movement strategies in Canada to further understanding of the potential impact of this movement for food systems change. This mixed methods research combines theoretical reflection and different empirical approaches to assess barriers to food movement participation in Canadian policymaking. The results provide both broad overview and in-depth examination of food movement strategies in the Canadian, neoliberal, context. Taken as a whole, the dissertation contributes to scholarship on sustainability transitions, debates on visions of sustainable food systems, and further understanding of the politics of the possible in the Canadian food movement. The findings suggest that the current political context influences the strategies that the food movement uses to optimize opportunities and mitigate barriers in transitioning to a sustainable food system.
ACKNOWLEDGEMENTS

Throughout this research, I have received exceptional support and assistance from so many people. I would first like to thank my supervisor, Dr. Evan Fraser, for his guidance and enthusiasm in supporting me throughout this process. Your firm commitment to work-life balance and book suggestions were at times absolutely crucial. I am especially grateful for the opportunities that you opened for me outside of my dissertation, some of which made it into the appendices.

I would also like to thank my committee members, Dr. Jennifer Silver and Dr. Ze’ev Gedalof. Dr. Silver, thank you for your thought-provoking insight and detailed advice at every step along the way. Your support has been truly invaluable to me. Dr. Gedalof, thank you for your methodological advice and for keeping my whole committee on track to finish A Dissertation, not The Best and Longest Dissertation.

I was fortunate to have my dream team in my dissertation defense, and I would like to thank Dr. John Smithers and Dr. Peter Andrée for making up half of that team. Thank you both for your insightful questions and thoughtful feedback, which has enhanced this dissertation.

I would like to thank the individuals involved in the food movement and Canadian agrifood policy who took the time to complete the survey and interviews in this dissertation, or simply chat with me about my research. This research would not have been possible without your participation. I would like to single out Dr. Victoria Wojcik at Pollinator Partnership Canada for speaking with me so enthusiastically about my research, agreeing to participate in the case study, and introducing me to the rest of the nonprofit organization and their partners.

Thank you to my friends who were of great support in providing happy times and early morning chats about everything that matters most. Acknowledgements to MC, in particular.
My family was invaluable to me throughout this process. I would like to thank you all for the happy distraction, the listening ear, and the childcare. Thank you to my little one, for making me laugh on even the most trying days. And finally, acknowledgements must go to my most excellent husband, Matt. Thank you for always being there for me. Thank you for supporting me in all of my endeavors, academic and inane.
PREFACE

Authorship of the first manuscript (Chapter 2) is shared between the student and another scholar. Authorship of the third manuscript (Chapter 4) is shared between the student and her full committee. Following the guidelines set forth by the Department of Geography, it should be noted that these manuscripts are dominated by the intellectual effort of the student. The student is the sole author on the remaining chapters, including the second and fourth manuscripts.
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1 Introduction

Over the past decade, distrust and discontent with the global food system has risen dramatically following the 2007-2008 food price crisis in which price spikes drove many into food insecurity (Lang & Heasman, 2015). At the same time, increasing understanding of the environmental impacts of agriculture, including climate change, ecosystem contamination and resource depletion, has prompted global interest in the need for broader consideration of food system sustainability (Godfray et al., 2010). Yet global institutional responses to this dual challenge have primarily emphasized technological and trade-based solutions that many argue are the primary cause of global food inequities and environmental degradation (Rosset, 2008; Clapp, 2016). As such, this response spurred increased discontent and distrust in a food system dominated by corporate interests and upheld by neoliberal policy (Clapp, 2016; Koc, 2015).

Rising in response to this widespread discontent with the global food system, the food movement has been called “the social movement of our time” (Friedland, Ransom, & Wolf, 2010, p. 533). The food movement is sometimes referred to as a collection of movements focused on particular issues such as organic, fair trade, food sovereignty, local food, alternative food, agroecology, and community food security (Friedland, 2010). Following protocol and terminology established in the food movement literature, this dissertation investigates the organizations and networks (and their initiatives) aligned with this social movement, and uses the term ‘food movement’ to describe these organizations and their initiatives unless it is useful to differentiate between them (e.g. Cameron & Wright, 2014; Levkoe, 2015). The exception is Chapter 3, which is situated within the food policy literature (see below). In this body of literature, the organizations and initiatives aligned with food movement are more frequently termed ‘civil society organizations’ (e.g. MacRae, Abergel, & Koc, 2012) and as such, this chapter follows this terminology.
For many, there is no doubt that the food movement has an important role to play in the development and implementation of a food system that supports social and environmental justice (Andrée et al., 2019). Yet precisely how the food movement can support a transition to a sustainable food system has been the focus of considerable scholarly debate (Goodman, DuPuis, & Goodman, 2014; Wittman, Desmarais, & Wiebe, 2011). This debate originated in classifying food movement organizations and their initiatives as “alternative” or “oppositional” to the conventional food system (Allen, FitzSimmons, Goodman, & Warner, 2003). Alternative food initiatives provide ways to produce, process, distribute, and grow community around food outside of the conventional food system, however while some recognize these initiatives as a means to more democratic governance of the food system (Andrée et al., 2019), others posit that they do little to challenge the conventional food system (Guthman, 2008; Wittman, 2009). These scholars suggest that oppositional food initiatives such as political advocacy are needed for food system transformation, yet a parallel body of scholarship investigating Canadian food policy processes shows that so far, the food movement has had little impact on federal policy (Kneen, 2011; MacRae, Abergel, & Koc, 2012). The disconnect between these bodies of scholarship requires further understanding of barriers to food movement engagement in policy processes, and the strategies that food movement organizations use to work within the food system and simultaneously support systemic change.

1.1 Analytical Frameworks: Transitioning to a Sustainable Food System

In this dissertation, I argue that the disconnect between one body of scholarship outlining the need for the food movement to affect policy and another outlining the inability to do so stems from the barriers of working to change a system from within the bounds of that system. As such, in this dissertation I clarify barriers to policy change and investigate how the food movement can work within the system while supporting systemic change. The policies that provide both the context and the focus of challenge in the Canadian food system are referred to as neoliberal policies. This is based on
scholars who are critical of the conventional food system and argue neoliberal policy produces or creates the conditions for many social, economic and environmental problems in the food system (Clapp, 2009). Neoliberalism refers to the political processes and regulations based on free trade, privatization of state programs and processes, deregulation of social and environmental protections that ‘impede’ business, and increasing participation of industry in decision-making through public-private partnerships (Castree, 2008; Eaton, 2013). To understand what it means to work within this neoliberal system while supporting systemic change, I draw on a number of conceptual frameworks that have been proposed by scholars in the fields of systemic change and social movements. These include: (1) concepts of food movement convergence, (2) the politics of the possible, and (3) sustainability transitions. These are outlined in more detail in later chapters (convergence in chapter 4; the politics of the possible in chapters 2, 4 and 5; and sustainability transitions in chapters 2 and 3). These key pieces of scholarship are briefly introduced here as concepts that require further investigation throughout this dissertation to understand possible roles for the food movement in a sustainable food system transition.

1.1.1 Food Movement Convergence

Food movement convergence theory (reviewed in detail in chapter 4) advances the need for diverse initiatives to collaborate, and debates in this body of scholarship focus on the extent to which the prevalence of food organizations and initiatives are converging into a single movement based on shared visions, strategies or alliances (Constance, Renard, & Rivera-Ferre, 2014). This concept grows out of the key debate on oppositional and alternative initiatives, as scholars consider whether there is convergence around oppositional or alternative initiatives. Here, two issues sometimes conflated in the literature are (1) whether the strategies utilized by the food movement are adequate to support food system change (Guthman, 2008), and (2) whether food movement initiatives adequately address issues of classism, racism and sexism (Allen, 2014). As such, oppositional typically refers to initiatives that are both in direct opposition to the dominant food system, sometimes termed ‘warrior’ initiatives aimed at
breaking down the dominant food system through public protest (Stevenson, Ruhf, Lezberg, & Clancy, 2007), as well as initiatives that have adequately transformational goals such as equitable redistribution of resources, sometimes termed ‘radical’ initiatives (Holt-Giménez & Shattuck, 2011). Alternative initiatives, such as farmers’ markets or community gardens, on the other hand, represent opportunities for individuals to opt out of the conventional food system, for example by purchasing food directly from a producer, and may or may not include more radical end goals (Allen, FitzSimmons, Goodman, & Warner, 2003). This dissertation focuses on the first issue (strategies) and the convergence debate is integrated throughout this dissertation, but is discussed in depth in Chapter 4. Broadly, this dissertation furthers this concept by statistically analyzing the extent of convergence in the Canadian food movement’s goals and strategies, and considering the extent to which the Canadian food movement is converging around neoliberalism (reinforcing the conventional food system) or a ‘politics of the possible’ (changing the food system).

1.1.2 The Politics of the Possible

This dissertation also builds on a body of literature called “the politics of the possible” that examines the ways in which initiatives demonstrate a potential to transform the food system by providing a viable alternative that could expand and replace the conventional food system over time (Cameron & Wright, 2014). Critiquing the ways in which alternative initiatives are reduced to their similarities with the conventional food system, scholars have begun to point out that doing so undermines the potential of alternatives (Harris, 2009). Further, the food movement has thus far been more successful in emphasizing pragmatic action over systemic change (Goodman, DuPuis, & Goodman, 2014; Hassanein, 2003). As noted, this debate is outlined in detail in chapters 2, 4 and 5 of this dissertation, but briefly, the politics of the possible theory investigates ways in which organizations could support systemic change through pragmatic action that demonstrates what a future food system could look like (Cameron & Wright, 2014). Important here is the argument that the food movement is not currently changing food policy, and political tactics may require more on-the-ground support in the form of
widespread alternatives that work “within the cracks” of the conventional food system (Gibson-Graham, 2006). These ‘cracks’ refer to points of discontent that open up spaces of possibility and demonstrate the viability of different, more sustainable, policies (Gibson-Graham, 2006). This debate relates to a key framework in the sustainability transitions literature, the multi-level perspective that aims to explain how sustainability transitions occur through the interaction of on-the-ground alternatives (at the niche level), broader societal and environmental pressures (at the landscape level), and policy change (at the regime level) (Geels, 2011).

1.1.3 Sustainability Transitions

Sustainability transitions literature (which is explored in more detail in chapters 2 and 3, and utilized again in chapter 5) examines how systems (such as energy, water, or food), transition towards more sustainable practices and policies (Geels, 2011). Scholars have noted the potential for this body of scholarship to contribute to food systems research in terms of its potential to widen the scope of inquiry by moving beyond polarizing debates (such as that around oppositional and alternative initiatives) to investigate “the pragmatic process of taking action and facilitating change” (Hinrichs, 2014). Though these debates are vital for the future of the food system and must not be ignored in the literature as a whole, a parallel investigation into transitions strategies is also required to facilitate a transition to a sustainable food system. Broadly, in this dissertation, sustainability transitions theory is used to explain the disconnect between the bodies of scholarship on food policy processes and food movement strategies noted above. In particular, the MLP is used to support the notion that alternative food initiatives are a vital support for the policy change that is the ultimate goal for many food movement organizations.

Taken together, food movement convergence, the politics of the possible and sustainability transitions illuminate how the food movement as a whole can support systemic change in the Canadian food system while working around the barriers inherent in the conventional food system. Each of these concepts provide analytical
support in understanding the food movement’s role in a sustainable food system transition in terms of barriers to policy change and strategies for affecting systemic change in light of these barriers, which is the focus of this dissertation.

1.2 Study Focus

This dissertation explores the role of food movements in a sustainable food system transition in Canada. Canada provides an interesting case study for 4 reasons: (1) the Canadian food system remains characterized by environmental degradation and deep social inequities despite its relative prosperity (Wiebe & Wipf, 2011); (2) Canadian policy is guided by neoliberal ideology, much like the rest of the Global North (Eaton, 2013); (3) the food movement has a high level of popularity in Canada (Elton, 2010); and (4) the Canadian food movement is well established, and highly organized in terms of networking and collaboration amongst food organizations (Kneen, 2011). Indeed, it is due to the high potential for the Canadian food movement to affect food systems governance, that United Nations Special Rapporteur on the Right to Food, Olivier De Schutter, visited Canada in May 2012 (Levkoe, 2014).

Using the three analytic frameworks introduced in the previous section, aims to highlight the disconnect between two bodies of literature examining food system transformations. First, a body of scholarship on food movements that advocates that oppositional or political action is the only strategy that will meaningfully change the food system, suggesting that alternatives provide a means to ‘opt out’ of the conventional food system but do not challenge it directly (e.g. see: Rosset, 2008). The alternative perspective comes from a body of literature focused on food policy, in which scholars argue that existing policy channels prohibit meaningful public consultation and prevent food advocates from participating in policy change (e.g. see: Abergel, 2012). The implication of this second approach is that, thus far, attempts at advocacy have been less successful than attempts at ‘on-the-ground’ change, for example through alternative markets such as farmers’ markets (Goodman, Dupuis, & Goodman, 2014). These two bodies of scholarship have progressed primarily in parallel, leaving scholars
and practitioners to question how the food movement can support a transition to a sustainable food system.

Looking into this disconnect requires deep analysis of each side in the Canadian context, as well as empirical analysis aimed more specifically at bridging this disconnect. Through both policy analysis and investigation into food movement strategies, I aim to bridge this gap and in doing so both support practitioners to enhance the transformative potential of the food movement (Friedland, 2010). In addition, I aim to push theoretical boundaries to move beyond analyzing potential impacts of the food movement’s work to provide insight on what actions organizations can take to support a transition to a sustainable food system (Gibson-Graham, 2006). By closely integrating theory and practice, I hope to provide clarity and insight to both scholars and practitioners through this work. My intent is to move beyond categorizing initiatives as ‘alternative’ or ‘oppositional’ and consider the context in which organizations are working, and how this context influences the strategies they use to optimize opportunities and mitigate barriers. By focusing on this disconnect, this dissertation’s key contribution is to provide an examination of food movement strategies in the neoliberal era, and consideration of what it means to work ‘within the cracks’ of the existing system.

1.3 Aims and Objectives

The overall aim of this research is to examine how the neoliberal context influences organizations working under the food movement banner and what strategies these organizations use – and which may be most effective – to enhance their transformative potential in this context.

Specific research objectives include:

1) To understand food system change strategies that work within, around, and in opposition to the conventional food system;
2) To investigate barriers to affecting policy change for food movement organizations;

3) To examine the strategies food movement organizations are using to operate within the system that they are trying to change; and

4) To provide a practical guide to working ‘within the cracks’ of the food system to affect change.

1.4 Dissertation Structure and Contributions

As a whole, this dissertation contributes to scholarship on the transformative potential of the food movement in the neoliberal context. To better understand the influence of the neoliberal context on the transformative potential of the food movement, I highlight the disconnect between one body of scholarship outlining the need for the food movement to affect policy change and another outlining their inability to do so. This requires further understanding of food system change strategies, barriers to food movement engagement in policy processes, and the strategies that food movement organizations use to work within the food system and simultaneously support systemic change.

Following these investigations, this research demonstrates that given the neoliberal context, neoliberal leanings and ‘alternative’ strategies may be necessary precursors to systemic change by (1) demonstrating what a new food system might look like, (2) garnering widespread support for this system, and (3) appealing to those currently governing sustainability transitions, including policymakers and industry actors.

This dissertation is structured as four chapters made up of four peer reviewed manuscripts. Three of these are already published while the fourth is currently under review. Chapter 2 is the first of these manuscripts and was published in the second edition of Critical Perspectives in Food Studies (Koc, Sumner & Winson). It provides a conceptual framework to address Objective 1, which is to understand food system change strategies that work within, around, and in opposition to the food system. Synthesizing the scholarly literature, I explore theories behind strategies to develop a sustainable food system, examine how actors navigate within and around the food
system that they are trying to change, and consider how discourse that supports the conventional food system impacts perceptions of possibilities for food system change.

Chapter 3 is published in *Environmental Policy and Planning*. In it, I analyze parliamentary committee meeting transcripts from the development of Growing Forward 2, Canada’s primary agricultural framework at the time of writing, to investigate barriers to affecting policy change for food movement organizations, undertaking Objective 2. The overall contribution this chapter makes to the dissertation is to investigate further the first body of scholarship of interest, which examines failures of food movement engagement in policy making. It extends this work with added clarity on the particular barriers faced by food movement organizations seeking policy change through formal policy consultation channels. In doing so, this chapter provides an empirical overview and analysis of the context in which food movement organizations are working when they aim to impact policy change as a strategy for transitioning to a sustainable food system. This manuscript also provides a practical contribution to scholarship through assessing the barriers for food movement consultation in Canadian food policy development. Finally, this article provides two theoretical contributions to scholarship. First, this article links sustainability transitions literature and food policy scholarship by using the multi-level perspective, a fundamental analytical framework in sustainability transitions literature, to investigate the consultation process as well as the context in which it occurred. I argue that this framework is a valuable tool for explaining why Canadian policy consultation processes are consistently viewed as failures by food movement groups. The second theoretical contribution is to the food crisis scholarship, as this article adds to analyses on the conflict between sustainable intensification and food sovereignty, particularly as it plays out in Canadian policy. In this manuscript, I consider barriers to food movement participation in policymaking and argue that food movement organizations will not affect food system change through existing policy channels.

Given the apparent lack of progress for food movement organizations at the political level, in Chapter 4, I turn to food movement strategies to examine what food movement
organizations are doing as they operate within the system that they are trying to change thus addressing this dissertation’s third objective. This chapter was published in *Agriculture and Human Values* and is based on the survey results from 143 participating food movement organizations. In this chapter, I provide an empirical overview of food movement strategies in British Columbia, Alberta, Ontario and Nova Scotia. The overall contribution this chapter makes to the dissertation is to investigate the second body of scholarship of interest, which considers the transformative potential of the food movement based on their strategies. I extend this work by providing empirical support for the extent of convergence in the Canadian food movement and analysis into neoliberalisation and the politics of the possible. In doing so, I provide insight into who the food movement is in Canada, what strategies they engage in, and consider how the food movement can support food system change within Canada. In addition, the overview of the debate between ‘alternative’ and ‘oppositional’ initiatives provided in this chapter, with analysis of opposing ‘readings’ of food movement initiative: neoliberalisation versus a politics of the possible, provides key background information for the following chapter. This manuscript provides a methodological contribution to scholarship by offering a new analytical perspective: utilizing quantitative methods in a body of research primarily composed of case studies and qualitative methods (Marsden & Franklin, 2013). By outlining the politics of the possible as an explanatory framework for food systems change within the convergence literature, the manuscript further develops the convergence literature and provides a theoretical contribution to scholarship.

Moving further into the politics of the possible literature in Chapter 5 (a version of which is currently under review in *Local Environment*), I qualitatively examine the micropolitics of a non-profit organization as a case study. This allowed me to address Objective 4, which is to provide a practical guide to working ‘within the cracks’ of the food system to affect change. The overall contribution this chapter makes to dissertation is to provide empirical analysis aimed more specifically at the disconnect between the two bodies of scholarship of interest by analyzing a case study of an organization working with in the
cracks of the neoliberal food system and achieving policy change through on-the-ground initiatives. In doing so, I provide an overview of how food movement organizations can ‘fill the cracks’ in the neoliberal food system. I demonstrate that, given barriers to food movement participation in policymaking and the power of industry in policymaking, aligning with industry actors may allow food movement groups to influence policy and support transformative change in the food system. This chapter provides a practical contribution to scholarship by outlining four success factors to help organizations understand how they can work ‘within the neoliberal cracks’ and affect food system change. These include: (1) single issue expertise; (2) diverse and collaborative partnerships; (3) opportunities-based action; and (4) dominant discourse. This chapter also makes a methodological contribution to scholarship by investigating a unique case study that is unique in Canada because – at the time of writing anyway - the organization was the single non-industry-based nonprofit invited to federal value chain round tables, key gateways to influencing policy. In addition, the methods in this chapter include validation strategies surprisingly rare in the food movement literature, specifically member checking, the process of checking in with participants following analysis for participants to judge the accuracy of quotes and credibility of the interpretation (Creswell, 2007). Finally, this chapter provides a theoretical contribution to scholarship through further development of ‘politics of the possible’ framework by providing strategic insight into what it means to work ‘within the neoliberal cracks’ through four success factors, and addressing the theoretical barrier of ‘demonstrate’ initiatives outlined in Chapter 2 (difficulty classifying what is a hybrid, or merely an alternative); and (3) discussing the ways in which these four success factors can shift power in the food system. The objective of this paper is to move beyond analyzing the theoretical impacts of the food movement’s work to provide insight on what actions organizations can take to support a transition to a sustainable food system, following recommendations proposed by Friedland (2010) to support a growing food movement and enhance their transformative potential through intentional analysis. In this paper, I consider what it means for organizations to ‘work within the cracks’ of neoliberalism and ultimately influence systemic change through feasible and strategic action.
The concluding chapter summarizes the overall findings of this research. This includes a brief discussion on the findings, the dissertation's contribution to scholarship as a whole, methodological reflections, as well as thoughts on future research. Research ethics approval (Appendix I) was received by the University of Guelph Research Ethics Board for all research involving human participants in this project.

Finally, a note on the methodology: since this dissertation follows a “manuscript” structure (as per Departmental norms), each of the main empirical chapters (3, 4, and 5) has their own methods section. In addition, appendix II contains a reflection on the limitations.

1.5 References


2 A Conceptual Framework for Understanding Food Systems Change

2.1 Preface to the Manuscript

This chapter defines how food systems change is understood throughout the remainder of the dissertation, namely through its attention to theories of food systems change advanced by different groups, and consideration of which strategies may be viable in the neoliberal era. A primary argument in this dissertation advances that the food movement is limited by working to change a system from within the bounds of that system, and this chapter contributes a broader theoretical understanding of working within, around and opposed to the system to advance change. Drawing on scholarly literature, I outline prominent theories of food systems change, emphasizing how actors work within and around dominant food systems structures. Briefly, I frame theories of food systems change under four broad categories: (1) Amend, which includes minor changes within the dominant food system; (2) Transition, including alternative initiatives such as farmers' markets, operating alongside or around the dominant food system; (3) Transform, which refers to fundamental change directly opposed to the dominant food system, typically in the form of advocacy; and (4) Demonstrate, which is a hybrid of Transition and Transform in which alternative initiatives promote both the value change needed to inspire fundamental change to the food system, and the practical solutions that demonstrate the feasibility of food systems change. It is here, in the Demonstrate section, that I introduce the concept of “cracks” in the dominant food system: spaces of possibility opened up by value change or challenges to the dominant system (Gibson-Graham, 2006), and filled by practical, on-the-ground initiatives such as farmers’ markets, which have the potential to expand their impact and promote further value change (Beckie, Kennedy, & Wittman, 2012). This concept becomes important later in the dissertation, as the main argument of this dissertation is based on the viability of various strategies in the neoliberal era, and these cracks provide spaces of possibility for systemic change.
2.1.1 Preface References


2.2 Publication Details


2.3 Manuscript One

Food systems conversations in the twenty-first century are becoming increasingly complex, as producers, consumers, rural and urban communities, academics, and policy makers embrace the potential of food to address a set of interconnected issues—from nutrition and health to livelihoods and regional development (Blouin, Lemay, Ashraf, & Imai, 2009). Since regional food systems are built both as alternative to and yet also within existing policy, regulatory, and legislative structures, these conversations and possibilities are framed by a global industrial food system built on liberalization of trade (Clapp, 2009), corporate concentration of ownership (Rosset, 2008), neo-liberal discourse (Holt-Giménez & Altieri, 2013) and resource depletion (Weis, 2010). These structures—and the discourse that supports them—play an important role in guiding how we think about food systems change (Marsden, 2013). While the potential benefits of ecologically regenerative, socially just, community-based food systems are well rehearsed in the literature, an equally compelling body of research has identified theoretical and practical barriers, minefields that stand in the way of that potential. The pervasive reach of food systems—that makes food such a powerful vehicle for enacting strategies for sustainability—also makes these strategies susceptible to the influence of
interdependent systems operating at scales from local to global, including ecological, climatic, financial, regulatory, trade, and governance systems (Bernstein, 2014). This chapter explores significant theories behind strategies to develop sustainable food systems by examining how food system actors navigate within and around the food system that they are trying to change; the targets, priorities, and practices that they employ; and how these strategies account for the implications of scale.

2.3.1 Theorizing Food Systems Change

Precisely which strategies can best develop a sustainable food system has been the source of much debate in the food systems literature, and food scholars have applied a number of frameworks for understanding strategies used to create systemic change (e.g. Hinrichs, 2014; Holt-Giménez & Shattuck, 2011). Derived from these frameworks but adapted based on the scholarship presented in this chapter, the coauthors developed a framework to highlight the ways in which strategies are defined through visions of possibilities. That is, this framework considers what proponents of different solutions perceive as possible in the current systemic context, and thus the most likely strategy for changing the system. Based on perceptions of what is possible, strategies have different priorities, focuses, and means. In this framework, strategies are organized on a spectrum from minor adjustments to amend the current food system, to gradual shifts that facilitate transition, to fundamental changes that transform, or to a hybrid that will demonstrate alternative values—through successes at the community level—and the possibilities for fundamental change to the broader food system (see Table 2.1). This section outlines the theories behind these four strategies, and identifies the ways in which each strategy supports working within or in opposition to the current food system.
Table 2.1: Strategies for food systems change.

<table>
<thead>
<tr>
<th>Possibilities</th>
<th>Amend (Within)</th>
<th>Transition (Around)</th>
<th>Transform (In opposition)</th>
<th>Demonstrate (Within the cracks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small modifications; a &quot;greening&quot; of the industrial food system and more food in areas where hunger is prevalent; very little (if any) structural change is possible</td>
<td>Slow transition toward a better food system through provision of alternatives</td>
<td>Radical and fundamental transformation of the economic, political, and food systems; structural change at all levels (community to international)</td>
<td>Demonstration of feasibility of alternatives through community-based action that changes values and governance</td>
<td></td>
</tr>
<tr>
<td>Priorities</td>
<td>Producing more food with lower environmental and social impact</td>
<td>Creating, replicating, and networking of alternative structures</td>
<td>Dismantling of corporate monopolies and enhancement of food sovereignty</td>
<td>Nurturing the values necessary for sustainable systems</td>
</tr>
<tr>
<td>Focus</td>
<td>Technology: Green and efficient production methods</td>
<td>People: Locally adapted production methods; reconnection of producers and consumers</td>
<td>Regulations, power, and control (resource distribution [land, water, seed], equitable food distribution, community autonomy)</td>
<td>Shared social understanding of what is possible and viable, and what should be valued</td>
</tr>
<tr>
<td>Means</td>
<td>Technology improvements (higher yield, greener) and transfer to regions with low yields; strategies for implementing technology into sustainable food production systems</td>
<td>Providing alternatives to the conventional food system; producer and consumer awareness of alternative options; scaling-out existing alternatives</td>
<td>Demands for political changes to national and international regulatory structures (e.g. trade, labour, patents, land access)</td>
<td>Community-based action that changes values: takes advantage of devolution, regionally uneven development</td>
</tr>
</tbody>
</table>

2.3.1.1 Strategy 1—Amend: The Sustainable Intensification Debate

Proponents of “amend” strategies seek small changes to the current food system that could have large impacts by producing more food—and improving food security—while reducing negative environmental consequences. Working within existing food system structures, “amend” strategies are largely focused on technological innovations and transferring productionist technologies to low-producing regions. Scholars who advocate
sustainable intensification as a means to improve the food system largely fall into this camp of strategies (Garnett et al., 2013). The spread of Green Revolution technologies—including high-yielding seed varieties, machinery, synthetic pesticides, and fertilizers—has increased global food production, but the technologies have not reached all regions, and have also caused a number of environmental impacts (see Weis, 2017; Pretty, 2008). Scholars in this camp are concerned with reducing such impacts while meeting the needs of the rising global population, which is expected to reach 9 billion by 2050 and is increasingly consuming high-calorie and resource-intensive foods—e.g. processed foods, meat, and dairy foods—while a larger number of people are going hungry around the globe. Primary food system concerns include the need to reduce world hunger, meet rising food demand, and do so under increasing environmental stress due to climate change and declining land, water, and energy resources (Godfray et al., 2010).

Suggesting that global food production will need to rise by 70 per cent, scholars who advocate sustainable intensification emphasize technological innovations that must be implemented in highly productive regions and transferred to under-producing regions (Godfray et al., 2010). Given increasing competition for land and other resources and the ecological costs of clearing new land for food production, emphasis is placed on intensifying production on existing farmland while making better use of resources, inputs, and technologies (Garnett et al., 2013).

Some are careful to acknowledge that technological enhancement only leads to sustainable intensification when it reduces or eliminates ecological harm, and must be implemented in concert with enhanced use of ecological goods and services, collective action and human capital (Pretty, 2008). However, for others the push to increase production takes priority over the means by which this is accomplished. Some have suggested that production could be raised by as much as 58 per cent by closing yield gaps—the difference between actual and potential yield in a particular location, given existing agricultural technology and practice (Foley et al., 2011). Yield gaps of over 50 per cent currently exist in much of Africa, Latin America, and Eastern Europe, and
closing yield gaps could improve food security without cultivating additional land (Foley et al., 2011). Important innovations here include yield-enhancing technology combined with agricultural practices and technologies that reduce the environmental impacts of conventional food production. Technological strategies for developing a sustainable food system are commonly supported in international policy circles including the World Bank and the Food and Agriculture Organization of the United Nations (Holt-Giménez & Shattuck, 2011).

But is there a need to raise global food production? Currently over 2,800 dietary calories per person per day are produced (FAO, 2013), which is more than 600 calories above average caloric requirement. Yet almost 1.5 billion adults are overweight or obese (Popkin, Adair, & Ng, 2012) while over 800 million people are undernourished (FAO, 2013). In light of this inequity, increasing food production may not be sufficient to reduce hunger (Misselhorn et al., 2012). Critics of sustainable intensification argue that it focuses too closely on technological fixes that did not work during the Green Revolution and do not address the structural barriers created by trade liberalization, corporate concentration, and inequitable distribution of resources, thereby doing little to support a sustainable food system (Holt-Giménez, 2013). Strategies that emphasize technological solutions have been criticized for ignoring inequitable distribution and the power relations involved in social systems (Lawhon & Murphy, 2011). For instance, who owns the proposed technological innovations, and who will benefit by their implementation?

These criticisms indicate practical barriers to implementing sustainable intensification; strategies that do not directly engage those most affected by their implementation may not effectively address the needs of those that the strategies seek to support. As a result, proponents of “transition,” “transform,” and “demonstrate” strategies reject the focus on technology and argue that people-centred strategies are more likely to help those most affected by crises in the food system—and create sustainable food systems (Holt-Giménez, 2014).
2.3.1.2 Strategy 2—Transition: Providing Alternatives to the Industrial Food System

“Transition” strategies, also termed “alternative” (Allen, FitzSimmons, Goodman, & Warner, 2003) or “progressive” (Holt-Giménez & Shattuck, 2011), emphasize solutions that are profoundly different from the industrial food system without directly challenging that system. Working around the industrial food system, rather than explicitly opposing it, “transition” strategies are primarily implemented at the community level. The means for implementing “transition” strategies include practical or “on-the-ground” initiatives that target local priorities by allowing individuals to opt out of the industrial food system without directly challenging that system. “Transition” strategies occur primarily through initiatives to shorten supply chains and reconnect producers and consumers.

“Transition” strategies are guided by the assumptions that creating alternative food markets and relationships, and eating differently, can change the food system (Goodman, DuPuis, & Goodman, 2014). Watts, Ilbery, and Maye (2005) differentiate weak alternative market-based initiatives, which are based on product characteristics (e.g. organic) and may be susceptible to corporate cooptation and thus do little to transform the food system (Knezevic, 2017), and strong alternatives, which are based on networks (e.g. farmers’ markets; consumer-farmer relations) and may be important in creating a sustainable food system (Watts et al., 2005). Similarly, Fridell (2009) differentiates co-operative fair-trade businesses such as Planet Bean in Guelph, Ontario, and corporate social-responsibility fair-trade agendas such as that implemented by Starbucks. Through Planet Bean, coffee producers are directly linked with café workers, who can build relationships with consumers (Fridell, 2009). While Planet Bean maintains a commitment to consumer education, equitable North–South trade relations, and promoting structural change, Starbucks completes the minimum action needed to reduce public criticism and capture profits in the fair-trade niche market (Fridell, 2009). Starbucks’s weak commitment to fair trade is demonstrated by its efforts to manipulate consumer perceptions, questionable labour practices in the global North (e.g. use of exploitative prison labour and fighting unionization efforts), and
development of an alternative private supplier program with stronger environmental
standards but weaker social justice standards (e.g. linking coffee bean prices to market
fluctuations) than the Fair Trade certification used by Planet Bean (Fridell, 2009). While
lowering standards can increase corporate involvement in labelling initiatives and has
resulted in a greater proportion of production under these standards, this may do little to
change the food system as a whole (Friedmann, 2005).

Another key premise of “transition” strategies is that the replication—or “scaling out”—
and networking of locally based initiatives acts to create simultaneously both templates
for locally based action and the collaboration necessary for a “movement of
movements” (Blay-Palmer et al., 2013). Critics have identified two barriers to the
effectiveness of this approach: the seemingly incompatible priorities of many of these
initiatives, including viable farm incomes and food access (Allen et al., 2003; Mount,
2012), and the ineffectiveness of fragmented and local-scale initiatives that address
symptoms rather than the structural, state, and global causes of their problems (Holt-
Giménez & Shattuck, 2011).

A third theoretical barrier—for practical initiatives based in markets—is the “trickle
down” assumption that the shopping habits of elite consumers create demand for
healthier, greener food items, eventually making these items more affordable for all
(Friedmann, 2005). In the neo-liberal context, rising consumer demand for
organic/quality food items may result in a combination of lower state-enforced standards
and higher voluntary standards, exacerbating existing social inequalities as wealthy
consumers purchase healthy, organic, high-quality food, while poor consumers are left
to purchase highly processed, low-quality food (Friedmann, 2005). This assumption is
based in individualistic neo-liberal logic, and distracts from necessary broad, systemic
changes while privileging elite consumers and corporations that profit from the niche
markets (e.g. organic, fair trade) promoted in these initiatives (Fairbairn, 2012; Levkoe,
2011).
As such, some scholars suggest that many “transition” strategies represent mild reforms that will do little to create transformative change in the food system without policy support garnered through demands for fundamental systemic change (Holt-Giménez & Shattuck, 2011).

2.3.1.3 Strategy 3—Transform: Opposition, Protest, and Food Sovereignty

Holt-Giménez and Shattuck (2011:111) describe the current food system as a set of “tragic records”: “record levels of hunger for the world’s poor at a time of record global harvests as well as record profits for the world’s major agrifoods corporations.” Taking a strong stance against productivism, these scholars argue that capital-intensive technology is a key problem in the food system, rather than a solution (Hinrichs, 2014). Indeed, Holt-Giménez (2013:970) argues that farmers “are losing their seeds, soil, land and livelihoods as a result of the expansion of the large-scale, capitalist agriculture” that characterizes the current food system. Over the past 30 years, low food prices combined with high input costs—including farming technologies and proprietary seeds—drove peasant and family farmers away from farming in both the global North and South. However despite this seemingly persistent “crisis of low prices” (Rosset 2008:460), today, in an era of corporate control over the food system, we are experiencing a crisis of high prices in which people who may have previously grown their own food are going hungry. As such, these scholars argue that little will change without addressing the challenges that tools of the industrial food system—including proprietary technologies, free markets, privatization of resources, monopolies, and corporate power—create for small-scale agro-ecological peasant and family farmers (e.g. Holt-Giménez, 2013; Rosset, 2008).

For these researchers, the rising food sovereignty movement that protests against the industrial food system is necessary to develop a sustainable food system (Rosset, 2008). These scholars call for initiatives that explicitly oppose the industrial food system, and support fundamental transformation by dismantling corporate monopolies and building policy that supports equitable redistribution of land, water, and seed resources.
Transforming the food system through broad structural changes requires collective action against the neo-liberal ideology that guides the industrial food system (Guthman, 2008) and social pressure to force policy changes (Rosset, 2008).

Another key focus in “transform” strategies emphasizes agro-ecological production methods to improve farmers’ livelihoods and reduce the environmental impacts of agriculture by respecting traditional farming practices and reducing dependence on costly inputs, proprietary technologies, and seeds (Fernandez et al., 2012; Rosset, 2008). Agro-ecological practices improve farm resilience and reduce negative environmental impacts of agriculture by applying ecosystem principles to farming and using biodiversity and natural cycling to reduce inputs that adversely affect the environment (Koohafkan et al., 2012). A study of subsistence farmers in India found that shifting from locally adapted seeds to high-yielding varieties led to a loss of genetic diversity in crops, which reduced crop resilience to environmental stresses such as pests and extreme weather (Bisht et al., 2014). As such, some scholars argue that agro-ecology supports social and environmental values not provided by highly productive monocultures (Pant, 2014).

Two important barriers stand in the way of this strategy: the scale of action required for structural change and the inertia of policy makers. Collective action and social pressure “in opposition” has proven difficult to mobilize—particularly in those societies where the discourse of neo-liberalism has fractured the “common sense” understanding of the collective social articulation of values. So far the food movement has been more successful in achieving behavioural change (i.e. ethical consumption choices) than the political change envisioned by early activists (Goodman et al., 2014). Bernstein (2014) argues that the expectation of political change based on the tenets of food sovereignty is unreasonable, given the diversity of actors and interests—from peasants to low-income consumers—and the scale of the program necessary to implement change. The latter would involve coordinated efforts to address numerous factors that shape global food systems, including trade liberalization, financialization, austerity, concentration
throughout the food chain, control of genetic material, agrofuels, and fossil fuel addiction (Bernstein 2014). As a result, some scholars argue that, while policy-oriented initiatives are important, widespread political change will not happen instantly, and therefore political pragmatism, or a willingness to negotiate, compromise, and accept incremental results is required, since “there are no clear, practical alternatives to incremental change at this time” (Hassanein, 2003:84).

While wholesale policy changes may be extremely important for long-term sustainability, many of these policies may take years, if not decades, to implement (MacRae, 2011). Perhaps most importantly, policy changes can only be implemented so far as policy makers accept them. If calls for policy change are perceived as unfeasible by policy makers, these calls are unlikely to be heeded. This applies not only to radical changes such as state-level redistribution or reallocation of resources, but also to smaller changes that might rattle the “lock-in mechanisms” of the existing food supply chain, including sunk investments in infrastructure, existing training/expertise, firm values and discourse, power and lobby groups that resist change, and consumer lifestyle and preferences (Geels, 2011).

2.3.1.4 Strategy 4—Demonstrate: Collective Impact

Given the theoretical and practical barriers of “transition” and “transform” strategies, a number of scholars suggest that alternative food system structures and practices must not only help to shape social practice but also demonstrate what is possible by transforming how regional food systems are organized and governed (Lowitt et al., 2016). That is, it is not enough that alternative structures are “outside” of conventional market chains or that alternative practices are “different” or innovative: that difference, that innovation must integrate and demonstrate a core set of fundamental values—including collective subjectivities (Levkoe, 2011), increased equity, and democratization of control (Cadieux & Slocum, 2015)—that are both central and shared strategic priorities. Many have suggested that, since food movements are fragmented in their goals and approaches to the food crisis, there may be a need for “convergence in
diversity” (Constance, Friedland, Renard, & Rivera-Ferre, 2014) or a common platform that respects this diversity while providing a unified alliance that both protests against the industrial food system and provides an alternative to it (Amin, 2011; Mount et al., 2013). This necessitates the construction of broad-based consensus through alliances that pull together farm and food system advocates and demonstrate the full range of value that alternative practices can bring to ecosystem and community resilience, health, and well-being. Such a strategy will entail repoliticization of change strategies by bringing together those working on political or structural issues and those working “on the ground” to share knowledge and experiences, develop a shared understanding of what must be valued in a sustainable food system, and advance feasible actions and policies to build that system (Amin, 2011; Holt-Giménez & Shattuck, 2011).

“Demonstrate” strategies differ from “transition” strategies to the extent that they explicitly identify alternative values that are essential to sustainable systems. Practical initiatives create collective impact by filling “cracks” in the industrial food system, providing pressure from within the system to open up new spaces of possibility for structural change (Gibson-Graham & Cameron, 2007). For instance, agro-ecological production practices and direct markets provide pragmatic actions and everyday practices that may be needed to supplement the broader movements for political change (e.g. Fernandez et al., 2012; Wittman, 2009). The need to link political demands with agro-ecology to achieve social, economic, and environmental goals are increasingly apparent as “both NGOs and the farmers realize that simply producing more food more ecologically will not save their livelihoods from the enclosures of the corporate food regime” (Holt-Giménez & Shattuck, 2011:126). In a study of farmer-based political initiatives in Brazil, only after rejecting industrial agriculture practices and adopting agro-ecological practices were farmers able to achieve economic stability (Holt-Giménez, 2009). Additionally, the initiatives support policy change by combining advocacy with action through founding schools that integrate agro-ecological training with agrarian advocacy (Holt-Giménez, 2009).
Of course, as with any broadly defined categorization, the limits of “demonstrate” strategies will be tested. For example, some have suggested that, in the global North—where there are far more consumers than producers—market-based initiatives may provide an opportunity to engage members of the public uncomfortable with political activism (Stevenson, Ruhf, Lezberg, & Clancy, 2007). Indeed, market-based initiatives may be vital for successful political action, if policy change requires public awareness and collective action (Stevenson et al., 2007). Further, if transforming the food system “depends on entrenching alternative values ever more deeply in everyday practices” (Goodman et al., 2014:5), then one means for bringing alternative values into everyday practices is through market-based initiatives that engage a broad spectrum of community members (Stevenson et al., 2007). Therefore, the expansion of alternative markets that enhance social and environmental values, are notably distinct from capitalist markets that value only economic returns, and create community value change through everyday practice will in fact support broader structural change (Andrée, Ballamingie, & Sinclair-Waters, 2014).

For many of these scholars, the discourse of the “opposition” strategy paints a totalizing view of neo-liberal political structures that precludes the potential for alternatives to transform the food system (Andrée et al., 2014; Gibson-Graham & Cameron, 2007). This capitalocentric thinking ignores the ways in which community-based market initiatives are different from traditional capitalist markets, and instead sees all forms of economic activity in relation to capitalism—whether “the same as, the opposite of, a complement to, or contained within capitalism” (Gibson-Graham & Cameron, 2007:23). Criticisms of market-based initiatives—that assume such initiatives unavoidably reflect capitalism and neo-liberalism-by-association—may serve to undermine the transformative potential of such alternatives since “if there is nothing untouched by capitalism, there is no place to stand from which to combat it” (Gibson-Graham & Cameron, 2007:21). Focusing too closely on whether market-based initiatives represent true alternatives to the dominant market structure may undermine and weaken community support for alternatives (Gibson-Graham, 2006). Rather than focusing on the
ways in which current market structures inhibit change, Gibson-Graham and Cameron (2007) advocate the politics of the possible—searching for cracks or spaces of possibility and focusing instead on the ways in which such initiatives demonstrate a desire to transform the dominant economic model.

Political initiatives that work within neo-liberal structures may have greater potential for adoption (and thus transformation) than radical calls for dismantling existing policies precisely “because of the appearance of mere reformism” (Mount & Andrée, 2013:588). Eaton (2013) demonstrates this model in her investigation of the 2001 coalition to ban Roundup Ready (RR) wheat in Canada, which included environmental organizations, consumer interest groups, and producer organizations. Given federal commitment to market competitiveness and export-oriented agriculture, and an insistence by RR proponents that the only appropriate method for determining the suitability of RR wheat in Canada was through the market—i.e. by introducing the product and allowing individual choice to dictate RR wheat sales—the coalition’s most convincing argument to ban RR wheat was to demonstrate that RR wheat would threaten Canada’s competitiveness in export markets. Working within neo-liberal logic allowed the coalition greater success than a call for dismantling corporate power.

While alternative food initiatives are constrained by neo-liberal structures, they simultaneously influence these structures (Mount & Andrée, 2013). As a result of neo-liberal processes of devolution that saw a downloading of responsibilities to regional and local governments—without attendant funding—Mount and Andrée (2013) found an increasing prevalence of hybrid food initiatives made up of public–civil society organization (CSO) partnerships, where government agencies partner with non-profits in order to access alternative funding and deliver public services. Hybrid public–CSO initiatives “may produce a strong base for strategic alliances with widespread discursive appeal and legitimacy” to policy makers (Mount & Andrée, 2013:588). Developing new forms of governance not only within but because of the neo-liberal context “constitutes an important point of egress for AFNs, allowing local and regional actors to re-frame
their relations in a common-sense manner, and negotiate regionally responsive policies and regulation” (Mount & Andrée, 2013:588).

There is no doubt that actions in hybrid spaces are susceptible to co-optation, a possibility in any complex governance arrangement that invites both democratization and diverse priorities. Additionally, spaces neglected by the state lack state funding, making any initiatives inhabiting these spaces precarious. Finally, by addressing the negative outcomes of neo-liberalization without specifically highlighting and challenging root causes, these actions face the charge that they are simply dressing wounds while providing implicit support for neo-liberal policies. Yet where such acts demonstrate the possibility of alternative value constructions that respond to local needs, they demonstrate the potential of strategies that operate within the cracks of neo-liberalism.

2.3.2 Visualizing Sustainable Food Systems: Implications of Scale

As scholars and food systems practitioners theorize how to develop sustainable food systems, they must also consider what, precisely a sustainable food system entails—in terms not only of values but also of the infrastructure and policy that supports those values. Given the increasing market share of organic and fair-trade alternatives, combined with characteristics such as product certification and global supply chains that make such alternatives compatible with the conventional food system, these two initiatives may most effectively support the development of a sustainable food system. Yet while both organic and fair-trade initiatives have improved aspects of the conventional food system in terms of environmental and social standards, respectively, they have also suffered from consumer skepticism and criticism over relaxed standards and the conventionalization of production and marketing practices (Guthman, 2004; Lockie & Halpin, 2005; Smith & Marsden, 2004). Conventionalization occurs when an alternative niche falls prey to increased competition, intensification of production, concentration of markets, falling premiums, and a loss of producer control (for discussion, see Mount & Smithers, 2014). The spectre of conventionalization limits what change strategies are possible, since sustainable food systems must be based on long-
term viability for producers; structures that reproduce conventional outcomes—that is, food chains based on diminishing returns and lack of producer control—will only serve to discourage producers who are looking to alternative systems for alternative outcomes (Mount & Smithers, 2014).

Such criticisms imply that local food systems may be better suited to support sustainable food systems. Yet one of the challenges of developing sustainable food systems stems from the fact that many of the factors that influence these systems—including trade, investment, regulations, and governance—operate across multiple scales, from local to global. These factors are primarily designed to facilitate global conventional food systems, yet they often raise barriers that interfere with the operations of alternative and local food systems. Most often these barriers come in the form of subsidies that lower the prices of conventional products and regulations designed to ensure that food produced and processed in large-scale industrial facilities meet food safety or international trade standards—regulations that are entirely inappropriate to the scale and practices of regional food systems (Blay-Palmer, Landman, Knezevic, & Hayhurst, 2013; Mount et al., 2013).

In North America, despite the growth over the last decade of direct sales and alternative initiatives, most local food markets remain under-supplied (Boecker & Micheels, 2015; Low et al., 2015). One persistent critique suggests that, without an increase in scale that involves more people, more food, and a larger proportion of economic activity, they will not have a significant impact on the broader food system (Goodman, 2004; Mount, 2012; Stevenson & Pirog, 2008). While education and demonstration are critical components of the modern, increasingly urban sustainable food system, in order to provide a platform for sustainable food system development and regional self-reliance (Clancy & Ruhf, 2010), these alternatives must include and incorporate increased production for localized markets in peri-urban and rural regions. Of course, while increasing in scale, these alternatives must not only avoid reproducing the issues of the systems that they are replacing, they must also be seen to actively address those issues. Practically, this means that alternative systems must avoid potential pitfalls—
including conventionalization and conflicts in managing supply—while developing alternative infrastructure and methods of governance, in order to increase in scale while producing sustainable outcomes.

While much of the early Canadian growth in alternatives has resulted from scaling out—that is, reproducing successful, small initiatives in multiple communities—for many the question remains whether these initiatives can scale up without losing important values and legitimacy. While small-scale alternatives could increase efficiencies through increased scales of operation, the challenge comes in doing so without sacrificing qualities that are essential to the success of small-scale initiatives, including transparency, accountability, trust, reassurance, and authenticity (Mount, 2012; Rogers & Fraszczak, 2014). In this regard, the lessons of the conventionalization of the organic sector serve as a cautionary tale for many alternatives. Increased scale without appropriate attention to methods that ensure viable farm incomes and enhance the connections between producers and consumers will create the conditions for the reproduction of conventional outcomes (Mount & Smithers, 2014).

One significant barrier to scaling up is the fact that the aggregation, processing, distribution, and marketing infrastructure that would support local or regional-scale systems either has disappeared or is ill-equipped to meet the requirements of modern, alternative markets. While appropriate physical infrastructure receives much attention and funding in this regard (Mount, 2012), without matching social infrastructure these changes will not demonstrate a viable alternative or build the support required to challenge the status quo. This social infrastructure must build alternative ways of valuing and interacting within a governance structure that fits together the complex human interests, priorities, and relationships—and their food chain—in ways that make sense. Sustainable food systems require a fine balance between elements that may appear incompatible on a spreadsheet, including producer viability, ecological enhancement, and broader social accessibility to fresh, nutritious food. Infrastructure to reproduce these systems will almost certainly require new organizational and governance structures—including co-operative and not-for-profit elements that
encourage regional collaboration (Lamine, 2015; Pirog, Harper, Gerencer, et al., 2014; Sumner, McMurtry, & Renglich, 2014), allow for the negotiation of diverse priorities (Mount, 2012), and enable the development of shared markets and values-based food supply chains (Clancy & Ruhf, 2010; Renglich, 2015).

However, it is early days for these efforts to scale up. Attempts to fit new alternatives into existing food distribution and marketing structures have run up against the rationales and practices that drive those structures (Bloom & Hinrichs, 2010). Many communities and regions are investing in or otherwise encouraging new infrastructure—including both market-driven and co-op food hubs—as a means of offering maximum return to producers while maintaining transparency and connections throughout the food chain (Cantrell & Heuer, 2014), and delivering regional economic multiplier effects (Schmit, Jablonski, & Kay, 2013). It remains to be seen which models can balance the seemingly incompatible over the long term—that is, whether market-based models can balance profit with increased community food access and ecological benefits, or alternative models can deliver producer viability along with social justice and fresh, nutritious food.

Whether scaling up or scaling out, pressures of managing and maintaining supply are inevitable (Mount, 2017)—as success will attract more producers looking for high rates of return, and with increased supply, market pressures will push prices down. At the same time, larger numbers of “players” will inevitably increase the number of differing priorities to be reconciled, leading to more complex, messier governance structures. This is a critically important concern for those advocating the “collective impact” theory of food systems change. As various alternative political and practical initiatives converge, there is a need to consider which sorts of policies and governance structures support collaboration. Movements are not built on assumptions of shared values and goals, derived from umbrella concepts—such as “peasant,” “food sovereignty” or “ethical consumer” (see Bernstein, 2014)—but on willingness and ability to appreciate and accommodate diverse priorities, extract commonalities, and work toward mutually beneficial food systems. Collaboration is essential to produce tangible, identifiable
regional examples that will demonstrate alternative value conceptions, challenge accepted wisdom, and therefore serve more effectively to garner support in the context of productivist and neo-liberal discourse that supports and entrenches the conventional agri-food system.

The defining features of neo-liberalism include privatization of what is public and marketization of everything else; deregulation to reduce state interference in the free market and reregulation to provide state interference that facilitates privatization and marketization; running public services as if they were businesses; and encouraging civil society to provide public services that do not lend themselves to bottom-line business assessments (see Castree, 2008). The latter is particularly relevant to the “reform,” “transition,” and “demonstrate” strategies which, by ameliorating the worst of the social and environmental effects of the current system without addressing root causes, could be accused of creating the conditions for its reproduction.

Neo-liberalization relies fundamentally on a discourse that delivers the tenets of neo-liberalism with the ring of common sense. Eaton (2013) suggests that neo-liberalism in practice not only aims to adjust political economic policies in favour of agri-business, it also aims to influence how people understand the world, thereby influencing how people act. Neo-liberal discourse influences how people (such as farmers, social movement actors, and Canadians) perceive what is possible (Guthman, 2008) and “makes certain policies and explanations seem natural . . . and others seem unfair” (Eaton, 2013:xv).

While proponents of neo-liberalism extol the benefits of unfettered capitalism, “the very idea that the state can be taken out of the market is not based on the actual history of capitalism [which] reveals that capitalist social and political relations have always required a strong state to create and reproduce them” (Fridell, 2013:13). These mutually reinforced bonds shape the food system: corporate influence led to neo-liberal restructuring in the Canadian food system during the 1980s (Qualman, 2011), and continues to this day—for example, in multinational free trade agreements (Fridell, 2013). Trade agreements are market rules constructed by the state, and the state is a
key player in ensuring the rules are followed (Fridell, 2013). While proponents of capitalism may oppose state interference through social and environmental regulations, they rely on an authoritative state, both to enter into and to uphold trade agreements and capitalist market structures.

Some strategies, including those based on sustainable intensification, may place too much power in neo-liberalism and capitalism as monoliths that enforce a food system that cannot be changed—only amended. Yet strategies that advocate transformation of the food system through political demands may leave no place to stand from which to combat neo-liberalism. Other strategies find space to work around neo-liberal structures and create pockets of alternatives within the industrial food system, viewing these pockets as cracks within neo-liberalism that could be expanded to change the food system as a whole; cracks that demonstrate the possibilities for a more sustainable food system built on social equity, environmental justice, and economies that support communities.

2.3.3 Conclusion

While scholars have advocated a variety of strategies for developing sustainable food systems, the highest transformative potential may result from a strategy that supplements a broader movement for political change with pragmatic everyday practice (Marsden & Franklin, 2013). Strategies that are capital intensive, technology based, and focused on increasing production may exacerbate key problems in food system sustainability, as such solutions do not drastically differ from those offered by the Green Revolution, which did little to alleviate widespread hunger, loss of peasant and family farmers, and environmental degradation (Holt-Giménez, 2013). Some scholars instead see solutions in strategies that centre on people, whether through the provision of alternatives, demands for radical reform that supports producers and consumers, or a demonstration of collective values. Solutions based in political change are logistically complex, while solutions based in practice may suffer from parochialism. To build a
A sustainable food system may require a strategy that infuses solutions based in practice with the capacity to demonstrate the need for, and feasibility of, political change.

Advocates and practitioners must converge to facilitate transformative change since neither demands for radical change nor community-based initiatives will change the food system alone (Transnational Institute, 2012). There is some evidence for growing convergence in Canada, as research has shown that many food organizations operate simultaneously within public, private, and community spheres, and that core priorities and projects change over time as new challenges and opportunities arise (Mount & Andrée, 2013). Hybridity and fluidity within organizations indicate the difficulty in attempting to classify alternative food organizations as utilizing one of “transition,” “transform,” or “demonstrate” strategies. In turn, the difficulty of classifying food-movement practices highlights the challenges inherent in creating distinct strategies in theory, based on food movement practices and approaches that often overlap or complement one another, even within one organization. These theoretical barriers provide an optimistic vision of the potential for the food movement to change the food system, as the overlap demonstrates possibilities for movement building through alliances between diverse organizations. Additionally, the overlap demonstrates possible spaces and mechanisms for collaboration—between organizations, between those with diverse priorities, between political and pragmatic strategies—that will be essential in developing a sustainable food system.

Although there is a clear need for political change to facilitate development of a sustainable food system, initiatives that create alternatives within the current food system may be an important first step toward this change, particularly considering the current popularity of these initiatives (Marsden & Franklin, 2013). Production-oriented and certain forms of market-based activities (i.e. network-based markets) provide an opportunity to engage in pragmatic, on-the-ground activities simultaneously with broader initiatives for political change (Goodman et al., 2014; Wittman, 2009). Systemic change demands community engagement; initiatives that aim to engage consumers may be necessary to ensure that policy outcomes are supported by the public (Hinrichs,
That is, the prevalence of alternative markets may provide the means for creating a change in what people view as possible.

Yet as alternative markets increase in scale—by either scaling up or scaling out—we must consider carefully the qualities and values needed in a sustainable food system, and whether (and which) trade-offs must be made to maintain adequate food supplies. Infrastructure required to reproduce this system includes new organizational and governance structures—including co-operative and not-for-profit elements of the true food value chain. Balancing essential scale production in peri-urban and rural regions may be needed in the modern, increasingly urban sustainable food system, and education and demonstration are critical components of food system change strategies. Changing public perceptions of the way things are, the way they ought to be, and the possibilities for getting there may help destabilize the monolith of neo-liberalism and allow niche alternative markets to expand their reach, ultimately leading to the development of a sustainable food system.

2.3.4 References


Castree, N. (2010). Neoliberalism and the biophysical environment 1: What 'neoliberalism' is, and what difference nature makes to it. *Geography Compass,*


3 Transitioning to a Sustainable Food System through Policy? Examining Barriers to Food Movement Participation in Policy Change

3.1 Preface to the Manuscript

Following the theories of systemic change presented in the previous chapter, the remainder of the dissertation provides empirical evidence for investigating how the food movement can support a transition to a sustainable food system in Canada. Specifically, I aim to address the disconnect between food movement scholars outlining the need for oppositional, political action, and food policy scholars outlining failures of the federal government to adequately engage the food movement. As noted in the introduction, in this dissertation I argue that this disconnect stems from food movement organizations working for systemic change from within the bounds of that system. As such, there is a need to more closely investigate the barriers faced by the food movement when seeking political change. In this chapter, I examine these barriers.

This chapter outlines the political context that the Canadian food movement is working in (a broad overview of the Canadian food system is included in Appendix III, followed by a white paper outlining recommendations for improving food systems governance in Canada in Appendix IV). The political context is framed using the multi-level perspective (Geels, 2011), including an explanation of ‘landscape’ and ‘niche’ pressures that are opening cracks in Canada’s food system. Utilizing the multi-level perspective, a fundamental sustainability transitions conceptual framework, this paper addresses two needs in the food movement literature: (1) for a conceptual framework that grounds the plethora of case studies in food movement scholarship (Moragues-Faus & Marsden, 2017), and (2) to more clearly link food scholarship with sustainability transitions scholarship to clarify how transitions toward a sustainable food system may occur (Hinrichs, 2014). In addition, I contribute to analyses of sustainable intensification and food sovereignty as different ideologies in conflict in international policy circles, specifically regarding how this conflict impacts and plays out in Canadian food policy
development and influences opportunities for food movement organizations to affect policy change.

In this chapter, I examine the consultation process of Growing Forward 2, Canada’s primary agriculture policy framework at the time of writing. Using sustainability transitions theory, I provide insight on why Canadian federal public consultation processes are consistently viewed as failures by groups seeking systemic change. I use empirical data to examine more closely the barriers faced by civil society actors that make up the food movement, focusing on the tools used to uphold the status quo. Conducting a text analysis on parliamentary committee meeting transcripts, I consider who was invited to speak, and the way in which food movement actors were silenced, and industry groups given voice, through the topics that they were invited to speak on. Further critiquing the “transform” strategies introduced in Chapter 2, in this chapter I argue that broad systemic changes led by the food movement are not possible in existing policy channels, and utilize sustainability transitions theory to demonstrate possibilities for broad systemic change outside of these policy channels.

3.1.1 Preface References


3.2 Publication Details

McInnes, A. (in press). Integrating sustainability transitions and food systems research to examine consultation failures in Canadian food policymaking. *Environmental Policy and Planning*.

3.3 Manuscript Two

3.3.1 Abstract

Researchers have called for further integration of sustainability transitions theory into food scholarship. The objective of this paper is to integrate these bodies of literature by examining a Canadian case study, Growing Forward 2 (GF2) through the multi-level perspective. I argue that this framework is a valuable tool for explaining why Canadian policy consultation processes are consistently viewed as failures by civil society organizations (CSOs), and provide clarity on the barriers to CSO consultation in food policy development. Using qualitative analysis on expert witness statements in GF2 committee meetings, I found two key barriers within GF2. First, expert witnesses were predominantly from industry and producer groups, with limited and strategic CSOs invited to voice their suggestions. Second, witnesses were invited to speak on particular topics, resulting in policy based on pre-determined goals in support of the regime. I argue that these barriers provide voice to industry groups, and exclude CSOs from having their voices heard, suggesting that Canada will not transition towards a sustainable food system – as defined by CSOs – through existing policy channels. This article also contributes to analyses on the conflict between sustainable intensification and food sovereignty as it plays out in Canadian policy.

Keywords: sustainability transitions; food policy; sustainable intensification; food sovereignty; multi-level perspective

3.3.2 Introduction

While many scholars insist that civil society organizations (CSOs) seeking to support a transition to a sustainable food system must engage in political action to encourage
policy change (Guthman, 2008; Wittman, 2009), others point out that since neoliberal restructuring in the 1980s, the Canadian federal government has consistently excluded CSOs from participating in policymaking in a meaningful way, resulting in little substantial change to Canadian food policy during this time (Abergel, 2012; Koc & Bas, 2012). The disconnect between these arguments requires further understanding of barriers to CSO participation in policy change, as well as how sustainability transitions occur. Researchers have suggested that more explicit integration of sustainability transitions theory in food scholarship can help to build a more critical food scholarship and better support food systems change (Hinrichs, 2014). This paper aims to address this gap through a Canadian case study by using the Multi-Level Perspective (MLP), a sustainability transitions theory to examine the consultation process for Growing Forward 2 (GF2), Canada’s former agriculture policy.

Sustainability transitions research aims to promote action for large-scale societal transitions within particular sectors, such as energy, water, transportation or food (Hinrichs, 2010). This is done through analysis of how new, more sustainable social systems emerge and replace existing systems. A key analytical framework in sustainability transitions research is the MLP, used to conceptualize where and how sustainability transitions occur (Geels, 2011). Transitions are explained as the interaction between three levels: niche, regime, and landscape (Geels, 2011). The niche level is the space where innovation occurs and develops, such as research and development laboratories or niche markets (e.g. farmers’ markets; labelling schemes); it is the domain where individual agency is most easily exercised (Geels, 2011). The regime level includes the formal rules and established practices (e.g. common practices, policy, regulations, and institutions), and is typically the key area of interest in policy studies (Geels, 2011). The landscape level includes broad contextual influences such as the environment, demographic trends, political ideology, societal values and economic patterns (Geels, 2011). These levels are not intended to predict sustainability transitions, but instead provide a heuristic device to conceptualize factors involved in sustainability transitions (Geels, 2011).
GF2 was developed during a time of increasing landscape pressure, known as an on-going global ‘food crisis’ characterized by high and volatile food prices that began in 2008 and initiated an increasing awareness of corporate control over the food system, agriculture-driven environmental destruction, and global food inequity that continues a decade later (Clapp and Scott, 2018). This period in Canada also saw intensification of the ‘farm crisis’ in which farm incomes remain low despite rising agri-business profits (Qualman, 2011). Responding to these landscape pressures and other food system concerns including animal welfare, farmworker justice, Indigenous food sovereignty, and others, CSOs in Canada have advanced place-based solutions at the niche level, known as food movement initiatives (Levkoe, 2014). Despite these landscape and niche pressures, GF2 was not substantially different from its preceding policy framework aimed at productionist and export-oriented agriculture (Wipf, 2013), demonstrating a process of regime stabilization.

Following a more in depth review of these pressures, I outline my methods and findings, examining the federal committee consultation process and considering the ways in which this process provided the means for the regime to stabilize itself. In doing so, I assess the barriers to CSO participation in food policy consultation in Canada and consider how CSOs within and outside of Canada may better support a transition towards a sustainable food system. By articulating the GF2 consultation as a process at the regime level and considering both food systems researchers (Lang, 2005) and sustainability transitions researchers (Avelino & Wittmayer, 2016; Geels, 2011) in my analytical framework, I provide further understanding of theory in the politics of sustainable food system transitions. I argue that sustainability transitions theory explains the consistent failures of CSO consultation in food policy development, and in doing so, provide clarity on barriers to CSO-driven policy change by outlining the mechanisms by which CSOs are excluded from the consultation process. This case study shows that CSOs may better support broad systems change outside of formal policymaking channels at the regime level. I conclude with consideration of the utility of sustainability transitions research for investigating the role of CSOs in sustainability
transitions.

3.3.3 Sustainability Transitions in the Canadian Food Policy Context

As noted, scholars have suggested that, since 2008, we have faced a global “food crisis” characterized by rising and volatile food prices, and agriculturally driven environmental decline (Clapp, 2009; Foley et al., 2011). The food crisis is a significant landscape pressure in the food system (Marsden, 2013), yet scholars, policymakers and activists disagree on the ultimate drivers, and thus proposed solutions, of this crisis. Lang and Heasman (2015) posit that food policy is currently in a ‘Food Wars’ phase in which competing and contradictory solutions are advanced in policy circles, as different actors with different priorities and interests seek to influence food systems change in their favour. Two dominant and conflicting ideologies, sustainable intensification and food sovereignty, have been at the forefront of these debates.

Scholars advancing sustainable intensification argue that the growing crisis in the food system is a “threelfold challenge” to reduce world hunger and meet rising food demand under increasing environmental stress due to climate change and declining resources (land, water and energy) (Godfray et al., 2010, p. 812). The ultimate driver of this crisis is low production and its solution is to increase production by 70% by 2050, while reducing environmental impacts of agriculture (e.g. Foley, et al., 2011). Sustainable intensification was first coined in the U.K. by The Royal Society (2009), and the goal to increase production by 70% quickly became the dominant discourse in international governments and policy circles, and was taken up by food scholars situated in science and technology (Tomlinson, 2011). Driven by the same productionist ideology that underlies the current food system, improved technology is key to meeting the threelfold challenge. For instance, precision agriculture that combines sensors, machinery and information management systems to monitor each location within a field, or individual animals, can increase production while improving resource management (Gebbers and Adamchuk, 2010). Genetically modified organisms offer similar promises to increase production and improve the agricultural environment (Fedoroff, 2013). These solutions
broadly maintain productionism as the status quo in the food system, with enhanced technology.

In contrast, scholars advancing food sovereignty suggest that such capital-intensive technologies have in fact worsened incomes for producers and led the environmental destruction associated with agriculture, and propose instead systematic changes to the food system away from productionism. Food sovereignty was first introduced by Via Campesina in 1996 as a movement in the Global South for peasant solidarity and the decommodification of food, yet has been advanced by social scientists and activists as an alternative to neoliberal food policy in the global north (Wittman, Desmarais, & Wiebe, 2011). In Canada, civil society organizations including Food Secure Canada and the National Farmers Union promote political change rooted in food sovereignty (Food Secure Canada, 2016; NFU, 2012). Scholars advancing food sovereignty question the need to increase production by 70% since in the initial model, this was stated as the most likely future scenario, rather than a normative goal (Tomlinson, 2011). For these scholars and activists, the food crisis is better characterized by ‘record levels of hunger for the world’s poor at a time of record global harvests as well as record profits for the world’s major agrifoods corporations’ (Holt-Giménez and Shattuck, 2011, p. 111). As corporate concentration and industry power have increased over the past 30 years, a seemingly persistent crisis of low food prices drove many away from farming, yet today, in an era of corporate control over the food system, we are experiencing a crisis of high prices (Rosset, 2008). As such, these scholars argue that the ultimate driver is corporate control and unequal distribution of resources. In the global north, food sovereignty as a solution is often defined as local food systems that advance ecologically and socially sustainable principles (Wiebe and Wipf, 2011). Specific policy solutions for the global food crisis include reducing corporate control, primarily through protection for domestic markets (against dumping, and high and volatile prices), national food supply management, recovery of peasant and family farmers (through policy supportive of marketing boards, floor prices, public funding), and dismantling corporate monopolies (Holt-Giménez and Shattuck, 2011; Rosset, 2008). Environmental
challenges are best addressed through agroecological principles and protecting community rights to land, seed, and water (Holt-Giménez and Altieri, 2013; Rosset and Altieri, 1997). These conflicting ideologies – sustainable intensification and food sovereignty – indicate global landscape pressures with the potential to solidify or disrupt the regime, respectively.

3.3.3.1 Landscape Pressures in Canada

In Canada, the 2008 food crisis manifested in increasing pressure on food banks and increasing costs to Canadian consumers, but also in brief, if uneven, relief to the ‘farm crisis’, the on-going economic hardship faced by producers (Desmarais and Wittman, 2014; Wipf, 2013). Canadian producers, caught between input suppliers raising the cost of inputs, and food processors controlling the prices of final products and keeping them low, have long been stuck in a cost-price squeeze that has forced many away from farming (Qualman, 2011). Though high commodity prices provided economic relief to some producers, particularly grain producers, during the 2008 food crisis, the relief was not experienced uniformly across Canada, and agribusiness continued to capture the majority of producer incomes (Wipf, 2013). During the period of time leading up to the development of GF2, Canada also experienced a string of food safety concerns, and floods, droughts, diseases and pests affecting Canadian farms, including listeriosis in a Toronto-based meat processing plant in 2008, H1N1 in Canadian hogs in 2009, and Spring flooding in prairie regions in 2010 and 2011 (Alberta Agriculture and Forestry, 2011; Arnason, 2011; Wipf, 2013). An additional landscape pressure at this time, with the potential to derail Canada’s export-oriented system, was the failure of the Doha Round of international trade agreements, primarily due to the failure of the UK and US to rein in agricultural subsidies (MacRae, 2014). These landscape developments put pressure on the regime to change or adapt, and led to a number of niche responses.

3.3.3.2 Niche Responses in Canada

In response to these landscape pressures, producers increased calls for disaster relief (Wipf, 2013), and Canadian consumers began participating in a ‘vote with your fork’
campaign that gained attention across the country (Elton, 2010). These consumers are concerned about consumer health, Indigenous food sovereignty, producer incomes, animal welfare on farms, and the environmental impacts of agriculture ranging from pesticides and water supplies to carbon emissions of distant value chains, all issues consistent with food sovereignty (Desmarais and Wittman, 2014). Though changing values are landscape pressures, the increase in niche-level initiatives responding to these changing values is more readily captured by current research. Increasing pressure on the regime from the niche level at this time was seen in the expansion of farmers’ markets (Beckie, Kennedy, & Wittman, 2012), and the increasing consumption of Organic-certified products (Kendrick, 2009). These initiatives move beyond consumption patterns, and aim to educate and engage the public on environmental and social justice issues, as well as direct attempts at policy change through a rising number of food policy councils (Beckie, et al., 2012; MacRae and Donahue, 2013). The increase in consumer and civic engagement within these niche initiatives has been characterized as a growing ‘food movement’ within Canada, led by CSOs and strengthened through the development of a national food movement network, Food Secure Canada, in 2006 (Kneen, 2011). In the time leading up to the development of GF2, Canadian scholars and CSOs argued for food sovereignty policies to be implemented in federal food policy, and for increasing attention to domestic issues over international trade (Wittman, Desmarais, & Wiebe, 2011).

3.3.3.3 Regime Stabilization in Canada

In the midst of these landscape and niche pressures, Canada tabled GF2, an agrifood policy framework aimed primarily at increasing production for global markets. Though focused on ‘agrifood’ policy, GF2 may be a key starting point for food systems transformation since currently there is no broad food ministry in Canada and food-based policy discussion often falls to the federal ministry Agriculture and Agrifood Canada (AAFC) despite a number of other federal ministries that govern food related issues, including Health Canada and Fisheries and Oceans Canada. For instance, in 2015 the development of a food policy was included as a top priority in the mandate letter sent to
the AAFC Minister, Laurence MacAuley, by Prime Minister Trudeau (Trudeau, 2015). Implemented in 2013, GF2 was a five-year program following the original GF framework, though it marked a shift away from subsidy programs. Instead, the $3 billion investment by the federal government focused on non-subsidy programs including strategic initiatives in economic competitiveness, market opportunities, and product and technology innovation. Specifically, the strategic programs included a $2 billion provincial component (cost-shared with the federal government on a 60:40 federal/provincial ratio) that provided flexibility for provinces to address local issues that fall within three priority areas: Innovation, Competitiveness and Market Development, and Adaptability and Industry Capacity (AAFC, 2015). In addition, the $1 billion federal component provided funding for technology development (AgriInnovation; $698 million), market development and improving food safety systems (AgriMarketing; $341 million), and adaptation to changing market preferences and business development to enhance profitability (AgriCompetitiveness; $114.5 million). Subsidy funding included undefined amounts for four Business Risk Management (BRM) programs: AgriStability, Agrilnvest, AgriInsurance and AgriRecovery, as well as support for supply management. Not substantially different from previous Canadian agrifood policy, GF2 is a manifestation of the regime stabilizing itself in the midst of a number of landscape and niche pressures.

How regime stabilization occurred despite a federal consultation process and an increasingly vocal CSO network aligned with food sovereignty principles requires further investigation. Indeed, Canadian federal food policy has consistently neglected to reflect CSO interests (Kneen, 2011). Scholars argue that since neoliberal restructuring in the 1980s, agribusiness has been the dominant voice in policy to the exclusion of CSOs (Blay-Palmer, 2012). As a result, food system scholars have begun to investigate public consultation in federal food policymaking (MacRae, Abergel, & Koc, 2012). This body of literature is littered with examples of failed public consultations. For example, the Canadian Biotechnology Advisory Committee was established by the federal government to address biotech policy through public consultation and expert advice, yet was ultimately boycotted by CSOs due to the federal government’s close ties with the
biotech industry and nominal involvement of CSOs (Abergel, 2012). Critics have suggested that its only function was to permit pre-determined policies to proceed unhindered (Abergel, 2012). An investigation of Canada’s Action Plan for Food Security yielded similar findings: while private corporations were not involved in the consultation process, their interest in maintaining competitiveness in a global market was emphasized in the final report, while CSOs had their concerns recorded but did not find the process not truly consultative as there was no opportunity for discussion with policymakers (Koc and Bas, 2012). Others have pointed out successes, including federal rejection of both recombinant bovine growth hormone and Roundup Ready Wheat due to significant opposition from CSOs, though in coalition with farm and supply chain lobby groups (Andrée, 2011; Magnan, 2007), and through international-market-based arguments (Eaton, 2013), indicating that civil society alone has had limited success in adjusting Canadian food policy.

While these case studies represent strong evidence of industry power in Canadian food policy, and indicates that there are barriers to CSO participation in these processes, little is known about the specific mechanisms supporting these barriers. By analysing the GF2 consultations through a sustainability transitions lens, this research provides clarity on the specific mechanisms by which CSOs are excluded from policy consultation, and as such provides insight on why civil society has had limited success in changing food policy.

3.3.4 Methods

This analysis of GF2 is situated within sustainability transitions theory and the MLP as outlined in the introduction. This analytical method has been challenged by a number of researchers who seek to more carefully consider the politics implicated in sustainability transitions (e.g. Lawhon and Murphy, 2011; Shove and Walker, 2010). Critics of this framework suggest that there is tension between the need for broad systematic change and democratic processes of sustainability transitions, and suggest that by analysing power and participants in the processes (for instance, policy consultation), researchers
can help explain why sustainability transitions happen in some places but not others (Lawhon and Murphy, 2011). There is a growing body of research to close this gap in sustainability transitions scholarship (Avelino, Grin, Pel, & Jhagrow, 2016), and Hinrichs (2014) argues that food systems researchers are well placed to contribute.

Avelino and Wittmayer (2016) note that sustainability transitions research lacks clarity on who is involved in sustainability transitions, in part because differentiating actors has challenges, as ‘the boundaries between sectors are contested, blurring, shifting and permeable’ (Avelino and Wittmayer, 2016, p. 634). For instance, how does one characterize a non-profit whose members are large-scale corporations and whose primary goal is to gain access to international markets? Should it be grouped with a farmers’ market organization that seeks to help individual farmers gain access to local markets by directly linking producers and consumers? The need to more clearly characterize actors involved in systemic change at different levels is one gap in sustainability transitions theory where food systems scholarship can add clarity.

Food systems scholars have conceptualized a ‘food policy triangle’ in which groups are characterized into state, food supply chain and civil society (Lang, 2005). State includes all levels of government, and though civil society traditionally refers to all nonstate actors, in agriculture and food policy studies, it is useful to differentiate the food supply chain from other CSOs, sometimes referred to as social movement organizations (Andrée, 2011) or food movement organizations (McInnes, Fraser, Gedalof, & Silver, 2017). These CSOs include not-for-profit groups that have filled gaps in service delivery since the hollowing-out government services typical of neoliberal governments, as well as organizations seeking broad systemic change (Andrée, 2011; MacRae, Abergel, & Koc, 2012). The triangle is a starting point, as food systems scholars have long highlighted major power disparities within the food supply chain (Winson, 1994). As such, in the analysis, I conceptualized these groups further based on literature specific to food systems research (e.g. Andrée, 2011; Eaton, 2013) (Figure 3.1).
Though the food supply chain includes both producers and industry (including industry research, commodity groups representing the full value chain, input industry associations, trade or marketing associations, and post-production industries), given the extensive research on the growing power of industry groups and declining power of producers (e.g. Magnan, 2011), as well as close ties between the federal government and the agricultural industry (e.g. Qualman, 2011), I examined these groups separately.

Civil society is divided into academics, public interest groups, producer service organizations, and banking or loan administrators. In this analysis, academics included individuals working in universities, whether they were there representing the university or attending the consultation as an individual, and were considered separately from other CSOs due to their role outlined in previous research on Canadian food policy and the potential for including either sustainable intensification or food sovereignty perspectives (Andrée, 2011). Public interest groups included those explicitly aligned with food sovereignty principles, as well as organizations working on systemic change more broadly in areas of human and environmental rights (MacRae, et al., 2012). Producer service organizations also included groups aligned with food sovereignty principles, but were considered separately from public interest groups due to their specific focus on producers as opposed to the public more broadly (e.g. technical training, direct sales, and small business consulting and advocacy). Banking or loan administrators were also considered separately given their unique position as a market actor outside of the supply chain.

The actors invited to consult on GF2 were grouped accordingly as they may have unique agendas, impacting the solutions and policy suggestions they advocated for (Seed, Lang, Caraher, & Ostry, 2013). Whether these agendas support or challenge the regime, or are more closely aligned with sustainable intensification or food sovereignty, is examined in the analysis.
In the qualitative analysis, I followed Lawhon and Murphy (2011) in examining how solutions are defined, by whom, and whose vision is enacted in policy. With these considerations in mind, I examined all 87 expert witness statements in the GF2 committee meetings to determine who was invited to speak, which topics witnesses were invited to discuss, and what the key recommendations were. In addition, I reviewed key documents pertinent to GF2 including the Saint Andrews Statement (SAS; the GF2 guiding document), the GF2 Committee Report (intended to summarize the expert witness statements), and the final GF2 policy framework for the themes that emerged in the witness statements. Using QSR NVivo, analysis and coding was conducted through in-depth reading of the transcripts to ensure the full meaning was elucidated (Creswell, 2007). That is, since different groups may use the same terms with different meanings, I examined terms within their context (Cope, 2005). For instance, proponents of both agroecology and sustainable intensification may use the terms ‘science’ or ‘technology’ despite vastly different approaches (Rosset and Altieri, 1997), and were coded accordingly. I began coding using four categories from the literature: technology, government regulations, local food and social welfare (Fraser, 2013) and adjusted these as new themes emerged in the transcripts, ending with seven
categories of recommendations (Cope, 2005). I then conducted discourse analysis to examine how these recommendations were justified given the landscape and niche factors outlined earlier. I outline these recommendations in the next section, following an outline of the GF2 topic and witness selection in AAFC Standing Committee’s GF2 study.

3.3.5 Findings

3.3.5.1 AAFC Standing Committee Study of GF2: Expert Witness and Topic Selection

Preceding the Committee’s official commencement of the study, analysts from AAFC conducted public consultations on the state of the industry to develop the Saint Andrews Statement (SAS) to guide GF2. This public consultation process occurred outside of Parliament, contributing to a lack of transparency in federal policy development. In addition, this consultation was driven by AAFC employees, and was limited to groups and individuals that they chose to engage. They focussed on industry groups and producers, with particular emphasis on producers implementing cutting-edge innovations, demonstrating commitment to pre-determined policy goals around innovation, a key component of sustainable intensification. In terms of CSO engagement, an AAFC witness statement indicated that the consultation process was limited and strategic:

One of the things we did differently this time was select in each province what the provincial officials perceived to be leading-edge farmers who were demonstrating significant innovation in the business models, agronomics, or technologies they were using. We engaged them directly in new ideas to make sure we weren't getting stuck in a rut and hearing the same voices all over again. . . I think we've covered the waterfront on both the producer and processor side, as well as with the civil society groups that we deliberately engaged.

- Greg Meredith, AAFC; Meeting 11
These consultations led to the SAS in July 2011, which outlined the intent of GF2 and directed the Committee’s GF2 public consultation (FPT Ministers of Agriculture, 2011). The SAS included two key policy objectives: competitiveness in domestic and international markets, and adaptability and sustainability for the sector (FPT Ministers of Agriculture, 2011). To meet these objectives, SAS included two key drivers: innovation and infrastructure (FPT Ministers of Agriculture, 2011). These themes can be seen throughout the Committee’s GF2 study, and in the final framework, demonstrating the strong role of government employees in guiding federal policy.

The Committee commenced the next phase of the consultation process by holding committee meetings to hear from expert witnesses between October 2011 and February 2012. The committee heard from 119 expert witnesses speaking in 87 witness statements. Witnesses were allotted 10 minutes to speak to a particular topic, followed by questions from the Committee members. Witnesses were selected by committee members based on who they had relationships with or wanted to hear from (personal communication with an anonymous committee member), and approved by a subcommittee out of the public record. Though the lack of transparency here provides little insight on the witness selection process, the final list of witnesses indicates that the selection process indicates bias towards industry.

In terms of the food policy triangle, the food supply chain dominated the witnesses, who came primarily from producers or producer groups, and industry groups (Table 3.1). Civil society was less well represented, and academics were the most common group of witnesses in this group. In addition, the invited academics came primarily from agricultural science departments traditionally aligned with sustainable intensification, as opposed to high profile Canadian scholars advocating food sovereignty (Wittman, et al., 2011), primarily in social science departments, indicating a selection process biased towards the regime even within civil society. Though both Food Secure Canada and the National Farmers Union, prominent food sovereignty groups in Canada, were invited, as a whole relatively few public interest groups and producer service organizations were
invited, providing little representation of food sovereignty-oriented groups. A few banking or loan administrators and government departments were also invited to speak.
Table 3.1: Topics that expert witnesses were invited to speak on.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Producers or Producer Groups (n=30)</th>
<th>Industry Groups (n=27)</th>
<th>Academics (n=14)</th>
<th>Public Interest Groups (n=6)</th>
<th>Producer Services (n=5)</th>
<th>Banking or Loan Administrators (n=3)</th>
<th>Government Departments (n=2)</th>
<th>Total (n=87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science and Innovation (7 meetings)</td>
<td>6 (20.0%)</td>
<td>10 (37.0%)</td>
<td>8 (57.1%)</td>
<td>1 (16.7%)</td>
<td>1 (20.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>26 (29.9%)</td>
</tr>
<tr>
<td>Competitive Enterprises (5 meetings)</td>
<td>8 (26.7%)</td>
<td>3 (11.1%)</td>
<td>1 (7.1%)</td>
<td>0 (0.0%)</td>
<td>4 (80.0%)</td>
<td>2 (66.7%)</td>
<td>0 (0.0%)</td>
<td>18 (20.7%)</td>
</tr>
<tr>
<td>Marketing and Trade (4 meetings)</td>
<td>2 (6.7%)</td>
<td>8 (29.6%)</td>
<td>5 (35.7%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>1 (50.0%)</td>
<td>16 (18.4%)</td>
</tr>
<tr>
<td>Business Risk Management (4 meetings)</td>
<td>14 (46.7%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>1 (16.7%)</td>
<td>0 (0.0%)</td>
<td>1 (33.3%)</td>
<td>0 (0.0%)</td>
<td>16 (18.4%)</td>
</tr>
<tr>
<td>Consumer Demand and Priorities of Society (3 meetings)</td>
<td>0 (0.0%)</td>
<td>6 (22.2%)</td>
<td>0 (0.0%)</td>
<td>4 (66.7%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>10 (11.5%)</td>
</tr>
<tr>
<td>Overview of GF and St. Andrews Statement (1 meeting)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>1 (50.0%)</td>
<td>1 (1.1%)</td>
</tr>
</tbody>
</table>
The Committee invited expert witnesses to speak to particular topics, including Science and Innovation, Competitive Enterprises, Marketing and Trade, BRM and Consumer Demand and Priorities of Society. To recall, these topics were chosen based on the SAS, which focused on competitiveness and adaptability via innovation and infrastructure. Examining the number of witnesses invited to speak on each topic shows strong commitment to innovation, profitability, and export markets, all productionist objectives, as well as the close ties between industry and AAFC. More witnesses were invited to speak about innovation than any other topic, demonstrating support for technology-based goals of sustainable intensification. The majority of remaining meetings focused on competitive enterprises, trade, and BRM, all of which contradict food sovereignty goals. Almost half of producers were restricted to discussing improvements to the existing BRM programs. Academics, the next most common group of witnesses, were invited primarily to speak about innovation or export markets. The small number of witnesses invited to speak on consumer demand and priorities of society, and the grouping of societal priorities with consumer demand, shows little commitment to the public interest. In addition, more industry groups than public interest groups were invited to speak to consumer demands and the priorities of society.

The pre-determined topics were at times used to actively silence the few public interest groups invited, when they challenged the regime. For instance, Leo Broderick from the PEI Health Coalition outlined concerns about the introduction of GM animals into Canadian agriculture and aquaculture systems, including the Enviropig, and was interrupted by the Chair, Larry Miller, who stated that “The GMO study, or biotech, are things that we have done, but this is about Growing Forward 2, and I would advise you to stick to that” (Meeting 5). Yet industry groups were able to speak about consumer ‘misconceptions’ of GMOs and the committee report included the biotechnology study as an appendix (AAFC Standing Committee, 2012). Despite the strategic topic and witness selection, the recommendations put forward by witnesses were not completely limited to innovation, profitability, and export markets, as outlined in the next section.
3.3.5.2 AAFC Standing Committee Study of GF2: Expert Witness Recommendations

The analysis revealed 6 broad categories of recommendations in addition to a small variety of ‘Other’ recommendations (Table 3.2). The recommended policy directions included: reduce barriers to science and innovation; support Canada’s competitiveness in the global market; support alternative markets within Canada; stricter social and environmental regulations; improve existing BRM programs; and support for new farmers. Within each category were more specific recommendations, outlined in Table 3.3.
Table 3.2: GF2 policy and program recommendations by expert witness groups.

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Producers or Producer Groups (n=30)</th>
<th>Industry Groups (n=27)</th>
<th>Academics (n=14)</th>
<th>Public Interest Groups (n=6)</th>
<th>Producer Services (n=5)</th>
<th>Banking or Loan Administrators (n=3)</th>
<th>Government Departments (n=2)</th>
<th>Total (n=87)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce barriers to science and innovation</td>
<td>18 (60.0%)</td>
<td>23 (85.2%)</td>
<td>12 (85.7%)</td>
<td>2 (33.3%)</td>
<td>2 (40.0%)</td>
<td>2 (66.7%)</td>
<td>2 (100.0%)</td>
<td>61 (70.1%)</td>
</tr>
<tr>
<td>Support Canada's competitiveness in the global market</td>
<td>15 (50.0%)</td>
<td>18 (66.7%)</td>
<td>6 (42.9%)</td>
<td>1 (16.7%)</td>
<td>1 (20.0%)</td>
<td>2 (66.7%)</td>
<td>2 (100.0%)</td>
<td>45 (51.7%)</td>
</tr>
<tr>
<td>Support alternative markets within Canada</td>
<td>11 (36.7%)</td>
<td>7 (25.9%)</td>
<td>4 (28.6%)</td>
<td>4 (66.7%)</td>
<td>2 (40.0%)</td>
<td>0 (0.0%)</td>
<td>1 (50.0%)</td>
<td>29 (33.3%)</td>
</tr>
<tr>
<td>Stricter social and environmental regulations</td>
<td>13 (43.3%)</td>
<td>5 (18.5%)</td>
<td>5 (35.7%)</td>
<td>4 (66.7%)</td>
<td>2 (40.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>29 (33.3%)</td>
</tr>
<tr>
<td>Improve existing Business Risk Management programs</td>
<td>15 (50.0%)</td>
<td>0 (0.0%)</td>
<td>2 (14.3%)</td>
<td>1 (16.7%)</td>
<td>1 (20.0%)</td>
<td>3 (100.0%)</td>
<td>0 (0.0%)</td>
<td>22 (25.3%)</td>
</tr>
<tr>
<td>Support for new farmers</td>
<td>1 (3.3%)</td>
<td>1 (3.7%)</td>
<td>1 (7.1%)</td>
<td>1 (16.7%)</td>
<td>1 (20.0%)</td>
<td>1 (33.3%)</td>
<td>0 (0.0%)</td>
<td>6 (6.9%)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (6.7%)</td>
<td>5 (18.5%)</td>
<td>4 (28.6%)</td>
<td>3 (50.0%)</td>
<td>3 (60.0%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>17 (19.5%)</td>
</tr>
</tbody>
</table>
Table 3.3: Detailed GF2 policy and program recommendations in MLP framework.

<table>
<thead>
<tr>
<th>Policy/Program Recommendation</th>
<th>Specific Recommendations</th>
<th>Example Quotations</th>
<th>Supports or Challenges Regime</th>
<th>Landscape Pressure</th>
<th>Niche Pressure</th>
</tr>
</thead>
</table>
| Reduce barriers to science and innovation | • Increase research funding and improve access to existing funds  
• Change public perceptions of farming technologies including pesticides and genetically modified organisms  
• Producer training and technology transfer  
• Government-University collaboration and communication  
• Interprovincial communication and collaboration on research  
• Invest in startups and commercialization  
• Protect intellectual property rights | • ‘Canadians know very little about the regulation of pesticides and plant biotechnology and their respective contribution to food security in Canada and around the world. This is unfortunate. To give Canadians confidence in the regulation of the products that will inevitably be needed to feed the world and protect the environment, more needs to be done to educate the public about the good work our government does on their behalf.’ Peter MacLeod, Vice-President, Crop Protection Chemistry and Dennis Prouse, Vice-President, Government Affairs, CropLife Canada; Meeting 9  
• ‘I would stress again that the best way to build and enhance the cattle industry and all of agriculture is through ensuring that we operate in a very competitive business environment, domestically and globally, and that we increase investment in research, innovation, and technology transfer.’ Ryder Lee, Manager, Federal Provincial Relations and Travis Toews, President, Canadian Cattlemen’s | Supports | Sustainable intensification and trade; innovation framed as a solution to global and domestic food security | Niche level pressures framed as consumer mistrust |
<table>
<thead>
<tr>
<th>Policy/Program Recommendation</th>
<th>Specific Recommendations</th>
<th>Example Quotations</th>
<th>Supports or Challenges Regime</th>
<th>Landscape Pressure</th>
<th>Niche Pressure</th>
</tr>
</thead>
</table>
| Support Canada’s competitiveness in the global market | • Sign bilateral trade agreements with countries without current trade agreements (develop new markets)  
• Reduce trade barriers within existing trade agreements  
• Develop international standards supporting Canadian production methods  
• Adapt Canadian production to adhere to international standards  
• Improve infrastructure and streamline trade logistics  
• Branding initiatives  
• Conduct market research and produce key commodities with high demand in the global market  
• Increase technology and processed food exports  
• Fund entrepreneurs with business strategies to access global markets | • ’It is critical that Canada act aggressively and uncompromisingly to pursue our export interests around the globe. I have to say this government has put in place the most ambitious trade agenda this country has seen in a generation. We are now looking at the possibility of trade deals with lucrative markets that include the EU, India, South Korea, Japan, and the trans-Pacific partnership.’ Kathleen Sullivan, Executive Director, Canadian Agri-Food Trade Alliance; Meeting 24  
• ‘From a public policy perspective, our suggestion is that Canada has to play a strong leadership role in working to eliminate the problems that create non-tariff barriers to trade. A continued focus on the one-world-approach to global pesticide policy; being a champion of the need for science and risk-based approaches to the sources of non-tariff trade barriers such as GMOs, soil or weed seeds; and bringing Codex into the 21st century and ensuring that it provides up-to-date information are areas that are going to take increased investment by' | Supports | Sustainable intensification and trade; productionism emphasized and current trade barriers framed as unscientific | Domestic niche pressures largely ignored |
<table>
<thead>
<tr>
<th>Policy/Program Recommendation</th>
<th>Specific Recommendations</th>
<th>Example Quotations</th>
<th>Supports or Challenges Regime</th>
<th>Landscape Pressure</th>
<th>Niche Pressure</th>
</tr>
</thead>
</table>
| Support alternative markets within Canada | • Educate consumers on the value of local/organic food  
• Develop dual supply chains with matching regulations for conventional and alternative markets  
• Fund ecological/organic farmer training  
• Support farmer transitions to alternative production methods and local markets (technology, training and infrastructure)  
• Develop regulations supportive of local processing infrastructure  
• Develop labeling regulations and provide tax incentives for environmental farming practices  
• Support small and medium-sized farms  
• Support local businesses  
• Research investment in alternatives including | ‘If the Canadian agrifood industry is going to thrive in the 21st century, it will have to differentiate and exploit value wherever it is. That means we'll have supply chains for commodities and products that are GM or GM-free, organic, and halal. They'll have unique functional attributes, and we don't have regulatory and supply chain systems in place to currently handle them.’ Peter W.B. Phillips, Professor, Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan; Meeting 8 | Challenges | Food sovereignty; emphasis on domestic issues and supporting ecological principles in farming | Niche level initiatives framed as expanding rapidly and thus requiring supports |
<table>
<thead>
<tr>
<th>Policy/Program Recommendation</th>
<th>Specific Recommendations</th>
<th>Example Quotations</th>
</tr>
</thead>
</table>
| Stricter social and environmental regulations | - Food safety standards, monitoring and research  
- Environmental regulations  
- Animal welfare regulations  
- Workers’ rights  
- Regulation of niche markets  
- Modernize legislation to support healthy eating  
- Monitor firms to reduce corporate consolidation and monopolies  
- Regulate input costs  
- Compulsory labeling of genetically modified organisms  
- Regulation of labeling words such as ‘organic’  
- Careful consideration of new products  
-Democratic decision-making | - ‘The commercialization of Roundup Ready alfalfa will eventually make it impossible to grow organic crops. We plead with the committee to assist us in this regulatory matter.’ Ted Zettel, General Manager, Organic Meadow Co-operative; Meeting 12  
- ‘Growing Forward represents a concern . . . allowing input suppliers and big agribusiness companies to get bigger and bigger and actually to grow to dominate the industry. We feel that if we're going to talk about BRM, one of the things that must be addressed is this problem of farmers not being able to draw much income, if any income at all, from the market, especially since the late 1980s’ Kevin Wipf, Executive Director, National Farmers Union; Meeting 20  
- ‘A large percentage of Canada’s food is genetically engineered  
- ‘The commercialization of Roundup Ready alfalfa will eventually make it impossible to grow organic crops. We plead with the committee to assist us in this regulatory matter.’ Ted Zettel, General Manager, Organic Meadow Co-operative; Meeting 12 | Supports or Challenges | Landscape Pressure | Niche Pressure |
<p>| Animal welfare and environmental production | - Support civil society organizations | functional foods, or ethnic cuisine. We believe that government dollars to assist in the flourishing of smaller-scale, local processing infrastructure pays off in stimulating a vibrant, sustainable regional economy.’ Ted Zettel, General Manager, Organic Meadow Co-operative; Meeting 12 | Supports or Challenges Regime | | |</p>
<table>
<thead>
<tr>
<th>Policy/Program Recommendation</th>
<th>Specific Recommendations</th>
<th>Example Quotations</th>
<th>Supports or Challenges</th>
<th>Landscape Pressure</th>
<th>Niche Pressure</th>
</tr>
</thead>
</table>
| Improve existing Business Risk Management programs | • Increase funding for Business Risk Management programs  
• Increase access to Business Risk Management programs (e.g. adjust reference margins in AgriStability and modify insurance production levels in Agrisurance)  
• More timely access to Business Risk Management programs  
• Clarify program participation requirements  
• Simplify application processes  
• Ensure fairness across provinces and sectors and allow for flexibility | against the will of the people of Canada, the majority of whom reject genetically engineered foods and want compulsory labelling. GE food was imposed on society without our knowledge and we are caught with it.’ Mary Boyd, Representative and Leo Broderick, Representative, P.E.I. Health Coalition; Meeting 5 | Supports | Farm crisis used to justify BRM programs, largely ignoring agribusiness uptake of farm profits | Niche level issues largely ignored, except regarding program expansion |
| Support for new | • Improve land access  
• Farmer training programs | ‘[GF2 should be] putting money towards new and young farmers | Challenges | Food Sovereignty; | Niche level initiatives |
<table>
<thead>
<tr>
<th>Policy/Program Recommendation</th>
<th>Specific Recommendations</th>
<th>Example Quotations</th>
<th>Supports or Challenges Regime</th>
<th>Landscape Pressure</th>
<th>Niche Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td></td>
<td>through apprenticeships, mentorship programs, access to land, and educational services’ Annamarie Klippenstein, Board Member and Kevin Klippenstein, Chair, Organic Farming Institute of British Columbia; Meeting 15</td>
<td>farm crisis framed as need for more small-scale farms and land redistribution</td>
<td>framed as increasing consumer demand</td>
<td></td>
</tr>
</tbody>
</table>
| Other                         | - Increase domestic consumption of key commodities through marketing programs  
- Provide business training for farmers  
- Support global food sovereignty by prioritizing fair trade over free trade  
- Dialogue with Indigenous communities within Canada  
- Build a National Food Policy  
- Looser labeling guidelines | 'We need to establish and support a national round table for farm business management, giving stakeholders a voice and a stage, and re-examine procedures and processes to facilitate national coordination and mitigate abuse.' Richard Robert, Chair and Heather Watson, General Manager, Canadian Farm Business Management Council; Meeting 12 'We also recommend that there needs to be a commitment to paper burden reduction targets—placing constraints on regulators so that for every new requirement that's introduced, one or two will be eliminated.' Virginia Labbie, Senior Policy Analyst, Saskatchewan and Agri-business, Canadian Federation of Independent Business; Meeting 14 | Both supports and challenges | Some witnesses drew on landscape pressures to outline the need for food sovereignty, others emphasized the need for unregulated markets | Some witnesses drew on niche level initiatives to outline the need for a food system guided by the will of the people; others framed niche level initiatives as an opportunity to achieve market growth |
In general, the recommendations reflected the topics that witnesses were invited to speak on, and as such broadly supported the regime. The majority of witnesses spoke of the need to reduce barriers to science and innovation, including strategies to increase innovation through research and commercialization. The next most common recommendation was to support Canada’s competitiveness in the global market, and included strategies to increase exports, primarily through decreasing trade barriers, enhancing trade infrastructure and marketing strategies. Not well supported by public interest groups, each of these recommendations were primarily supported by industry groups, banking or loan administrators, government departments, producers and producer groups, and academics. These witnesses drew on landscape pressures around sustainable intensification and the global food crisis, and trade barriers to support the regime, and niche pressures were either ignored or presented as consumer mistrust to justify these recommendations and support the regime. A third recommendation that supported the regime was to improve the existing BRM programs, recommended by approximately one quarter of witnesses. Most of these witnesses sought to increase access to programs, either by lowering program triggers or reducing red tape. Half of witnesses from producers and producer groups, and all banking or loan administrators, recommended this policy direction. Few witnesses from each of the remaining groups were invited to speak on BRM, and as such did not discuss this recommendation. Though these witnesses often drew on the farm crisis to justify their recommendations, they focused on relieving the economic hardship faced by farmers, and largely ignored the contribution of industry to the cause of this hardship, missing opportunities to advance food sovereignty. Niche level pressures were largely ignored, with some suggestions to improve access to BRM programs for diversified (niche) farms. Recommendations for expansion of a program that is largely necessary due to failures of the existing system to provide adequately for producers legitimizes these failures and supports the regime.

Three of the recommendations challenged the regime. Supporting alternative markets within Canada, and stricter social and environmental regulations were well-supported
(approximately one third of witnesses), given that witnesses were not explicitly invited to discuss these topics. Support for alternative markets included strategies to enhance alternative markets such as local markets or organic markets, primarily through regulations, infrastructure and education at the producer and consumer level. Though not the radical calls for dismantling corporate monopolies that some food sovereignty advocates call for, federal support for these alternative markets would to some extent reduce corporate control of the market. Witnesses within public interest groups, and to some extent, producers or producer groups and producer services most commonly recommended this policy direction. In addition, approximately one third of witnesses from academics and industry groups recommended supporting alternative markets in Canada. Stricter social and environmental regulations primarily trended towards food safety standards but also included more progressive regulations such as environmental regulations, animal welfare, workers’ rights, and restriction of corporate monopolies, all policies in line with food sovereignty. While not well supported by industry, these policy directions were most commonly recommended by witnesses within public interest groups, and to some extent within producers or producer groups, producer services, and academics. These witnesses drew on food sovereignty principles, including opposition to corporate control in the food system, and emphasis on domestic issues including environmental health and social justice. Niche level initiatives were framed as expanding rapidly, and even the will of the majority, and thus requiring supports. The third recommendation challenging the regime, though less widely supported, was support for new farmers. By drawing on landscape pressures around land access, these witnesses utilized food sovereignty principles around more equitable distribution of resources to justify their recommendations. Framing niche level pressures as a new status quo, these witnesses stated that the increase in demand for Organics indicated a need for production supports including new organic farmers to meet increasing demand.
3.3.6 Discussion

With its emphasis on innovation, industry growth, BRM and food safety programing, GF2 policy is more in line with the productionist and technology goals of sustainable intensification than the equity and resource redistribution goals of food sovereignty, and as such ultimately supports the regime despite a number of landscape and niche pressures. This examination of the federal committee consultation process articulates policy consultation as a process within the regime: the realm that upholds the status quo (Geels, 2011). This research provides further insight on the mechanisms used within this tool, including topic and witness selection, providing clarity on barriers to CSO consultation.

Witnesses were invited to speak on topics that support the regime. Themes around achieving industry growth through innovation, market access and profitability all support productionist ideology, and can be seen throughout the expert witness statements, in the topics that witnesses were invited to speak on, in the SAS, and in the final policy. Given that the SAS guided the topics that witnesses were invited to speak on, and witnesses were limited to speaking about the particular topic, it is perhaps not surprising that the strong focus on innovation and export markets in the SAS was ultimately translated into the final policy. In closely reflecting the SAS, which was guided by AAFC rather than Parliament, GF2 may be engineered to provide voice to industry. AAFC’s official mission is to ‘provide leadership in the growth and development of a competitive, innovative and sustainable Canadian agriculture and agri-food sector’ (AAFC, 2016). That is, AAFC approaches agriculture from an industry point of view rather than a producer view (Wipf, 2013) or the view of CSOs concerned with food sovereignty. Maintaining the focus on innovation and export markets from the SAS demonstrates that the committee study was limited to pre-determined policy goals focused on production- and export-oriented agriculture, supporting previous research outlining the strong influence of industry in policy development (Abergel, 2012), and the ideological dominance of the productionist model of agriculture in the global north (Tomlinson, 2011).
In supplementing the MLP with the food policy triangle, this research demonstrates that the witness selection process was biased towards upholding the productionist regime. Even witnesses within civil society were selected primarily to advance sustainable intensification. Though food systems research often assumes CSOs are guided by food sovereignty principles (e.g. Koc and Bas, 2012), the CSOs chosen as witnesses for this policy framework were primarily academics advancing sustainable intensification. Public interest and producer service groups representing food sovereignty principles were least well represented. Most witnesses came from the food supply chain. Industry groups, along with producers, were the largest groups invited to provide witness statements, indicating that from the beginning, these groups may have been most likely to have their voices translated into policy. Yet producers were less likely to have their recommendations enacted in policy. Two recommendations that were well represented in the final policy, initiatives to ‘reduce barriers to science and innovation’, and ‘support Canada's competitiveness in the global market’, were industry’s main goals, while producers were less supportive of these initiatives. In general, industry actors were better represented across topics than producers, who were limited primarily to discussing the BRM programs that were to be carried forward from the previous GF framework. While many producers were supportive of these programs, they were not given the opportunity to speak to other programs that may support their livelihoods. Not only does this demonstrate pre-determined commitment to BRM programs over other forms of improving producer income (e.g. regulation of corporate monopolies or improving infrastructure for alternative markets), it reduced producers’ voices to a program that was ultimately de-emphasized relative to the original GF framework (Wipf, 2013). This is consistent with on-going trends in food systems studies, which outlines the declining power of producer groups in the wake of growing industry power (Magnan, 2011). Ultimately, industry actors were more likely than any other group to have their concerns reflected in the final policy, while public interest and producer service groups representing food sovereignty principles, at times actively silenced, were least likely to have their vision enacted in policy, resulting in Canadian food policy maintaining a focus
on productionist agriculture (MacRae, 2011), and industry (Wipf, 2013), to the exclusion of both producers and the Canadian public.

Analyzing the GF2 consultations through a MLP lens demonstrates that the regime is currently entrenched in the Canadian food system, and indicates that CSOs still have minimal power in processes at this level. As a regime level process, policy consultation is a tool intended to uphold the status quo, explaining why research has consistently demonstrated failures to adequately engage CSOs seeking broad change in consultation processes. In addition, this research provides clarity on the particular mechanisms (topic and witness selection) used to uphold the regime through the policy consultation process. These findings have implications for CSOs advancing food sovereignty to engage in policy change.

Civil society campaigns, often characterised as a rising food movement, provide a means for the public to be engaged in a more democratic food policy process, provided CSOs are adequately consulted during this process (Lang & Heasman, 2015). Yet these campaigns are diverse, and researchers question whether they can converge into a unified food movement advancing food systems change (Constance, Renard, & Rivera-Ferre, 2014). This research provides insight on policy recommendations currently discussed in Canadian federal policy discussions, where CSOs seeking to forward food sovereignty could focus their efforts in a unified food movement.

In addition, the findings confirm the difficulty for CSOs alone to change policy through existing policy channels, and indicate that diverse groups may have overlapping goals to facilitate working together to achieve change. Some recommendations more in line with food sovereignty, including ‘support for alternative markets within Canada’ and ‘stricter social and environmental regulations’, were supported by diverse groups, indicating that CSOs may find allies outside of civil society for these policy goals. Given the policy successes of previous collaborations between industry and CSOs, this may be a viable option for CSOs to meet their food sovereignty policy goals (Andrée, 2011).
An additional implication for research on CSO engagement in food policymaking more broadly is that informal entries into policy discussions may be more influential than the formal consultation channels. That is, since the consultation topics were guided by AAFC, CSOs may be more successful engaging federal departments prior to the public consultation phase. The pre-consultation phase may be vital for building relationships with both elected officials and high-level government employees, given their influence in selecting witnesses and topics for the consultation process. Previous research has also noted that regulatory and policy processes are shifting as governments roll-out programs and processes under neoliberal governance structures, and as such high-level government employees may have more influence in policy than elected officials in Canadian federal policy (MacRae, Abergel, & Koc, 2012).

These findings also speak to a key debate in Canadian food scholarship that focuses on whether a sustainable food system can be developed through federal policy, or whether CSO efforts are more effective at driving change through consumer-based and local initiatives. Some suggest that given the lack of progress at the government level and the increasing success of local initiatives, activities must focus on scaling up these initiatives including farmers’ markets and community gardens to increase collective attention to food systems issues, ultimately paving the way for political change (McInnes, et al., 2017; Mount, 2012). Others argue for more radical changes to the political system, such as dismantling corporate monopolies and redistribution of resources (Eaton, 2013). Utilizing the MLP demonstrates that CSOs have had more success at the niche level than in their attempts at political change at the regime level, yet this success may weaken the regime and open opportunities for systemic change. Food movement research has shown that alternative markets can act as a gateway to consumer education and value change (Beckie, et al., 2012), supporting opportunities for increasing pressure on the regime through niche-landscape linkages.

Given the low power that CSOs exhibit at the regime level, it appears that the Canadian food system remains in the pre-transition phase (Avelino, et al., 2016). This is similar to much of the global north, where food and agriculture policies remain largely supportive
of increasing food production and free trade (Wise, 2015), and governments have failed to recognize the enormity of the food crisis (Lang & Heasman, 2015). Nonetheless, further expansion of sustainable intensification technologies may also indicate a process of ongoing transition, at least in terms of environmental, if not social, change. Further, GF2 was replaced by the Canadian Agricultural Partnership in April 2018, and though this policy framework has similar goals around innovation and trade, it also includes funding for further diversity in the system (AAFC, 2018), indicating that a transition towards a sustainable food system supporting both environmental and social justice may currently be ongoing through incremental change.

There are currently a number of landscape factors that helped stabilize the regime in the development of GF2, impacting much of the global north. GF2 was developed during a time when many governments around the world were closely focused on sustainable intensification (Tomlinson, 2011). In addition, free trade ideology promoted by multilateral organizations including the WTO undoubtedly influences Canadian food policy. GF2 was developed in the midst of the failure of the Doha Round of international trade agreements that could have signalled a decline in international trade agreements and instead led the Canadian government to pursue a number of bilateral trade agreements and further entrench free trade ideology. Yet the current, on-going trade war may indicate a weakening regime. For instance, a series of intentions set by the Trump administration to adjust trade policies may support more fair trade policies, but advocates worry that the intermittent nature of the trade war may worsen the cost-price squeeze for farmers, for instance by increasing the cost of steel and aluminium and thus the cost of farm machinery (NFU, 2018). In addition, landscape factors in Canada that may support regime changes include a vocal food movement for a systems-based food policy (Food Secure Canada, 2015), a series of farming crises (Wipf, 2013), and increasing distrust of political institutions (Koc, 2015). Overall, these conflicting landscape factors currently support the government’s ideological commitment to productionist agriculture through innovation and free trade and maintain the status quo. Yet the high conflict of these landscape factors demonstrates potential for the
landscape to weaken the regime and open up opportunities for niche-level CSO initiatives to expand as producers may begin to focus on more stable domestic markets and expanding opportunities at the niche level. The growing demand for fair trade and organic products (Jaffee and Howard, 2009), and increasing number of farmers’ market across Canada indicates a need for increasing production for these niche markets. Future research that seeks to integrate food systems research with sustainability transitions research could further investigate the ways in which landscape and niche factors can hinder or support regime change. Interactions between the niche and the landscape levels may be of particular interest as CSOs seek to provide alternatives to conventional markets while simultaneously supporting broad value change among consumers and opposing the status quo (McInnes, et al., 2017). Given the current entrenchment of the regime, it is important to consider other pathways to affect food systems change, outside of the regime.

3.3.7 Conclusion

GF2 is an expression of the regime stabilizing itself in the midst of a number of landscape and niche pressures. This was accomplished in part through the public consultation process, a tool used by the regime to maintain itself. Through in-depth reading of the GF2 policy consultation process, I argue that the preliminary topic selection and choice of expert witnesses demonstrates close ties between government and industry, and led to a series of recommendations that mainly supported predetermined policy goals, and from which policymakers selected policy to support innovation and export markets in line with the regime. This process provides voice to industry, and reduces the opportunity for CSOs aligned with food sovereignty to have their vision of a sustainable food system enacted in policy. The case study supports the notion that despite the current food wars between sustainable intensification and food sovereignty, dominant policy circles are aligning with sustainable intensification (Lang & Heasman, 2015; Tomlinson, 2011).
This case study demonstrates the utility of integrating sustainability transitions theory and food systems research, as each body of literature can inform, and be informed by, the other. Through the food policy triangle, food systems research can further conceptualize who is involved in sustainability transitions. This case study demonstrates the utility of examining cases where sustainability transitions have not occurred. A number of conflicting landscape factors currently support the government’s ideological commitment to productionism through innovation and free trade, yet demonstrate potential for the landscape to weaken the regime and open up opportunities for niche-level initiatives to expand and replace the regime. For food sovereignty researchers and CSOs caught in seeking political change but unable to engage with governments in a meaningful way, the MLP provides a means of articulating policy work as an avenue for change at a single level: the regime. In doing so, we can consider ways to instigate broad systemic change outside of government; that is, in working at the niche and landscape levels to impact the regime.

3.3.8 References


MacRae, R. (2014). Do trade agreements substantially limit development of local / sustainable food systems in Canada? Canadian Food Studies / La Revue


Wipf, K. (2013). From Farm Crisis to Food Crisis: Neoliberal Reform in Canadian Agriculture and the Future of Agri-Food Policy. (PhD Dissertation), University of Alberta, Edmonton, Alberta


4 Transitioning to a Sustainable Food System through Practice? An Empirical Overview of Food Movement Strategies in Four Canadian Provinces

4.1 Preface to the Manuscript

Providing further empirical evidence for the challenges faced by food movement organizations seeking to change the food system from within the bounds of that system, in this chapter, I use data (see the survey in Appendix V) from four Canadian provinces to examine food movement strategies, with particular attention to how these on-the-ground strategies map onto scholarly literature. I reflect on the structural barriers introduced in Chapter 3 and consider the question: given the barriers to food movement participation in Canadian food policymaking, how are organizations working on systems-level change in Canada? Though the intent of the analysis was to categorize participating food movement organizations into transition/alternative and transform/oppositional organizations, the cluster analysis and descriptive statistics showed hybrid organizations that engaged simultaneously in local, alternative initiatives, and broader attempts at policy change. For instance, a farmer’s market might include tables for local food movement advocates, or an advocacy group might host a monthly local market. Here, I demonstrate that theoretical concepts that clearly delineate strategy types may not be relevant in practice. I examine more closely the hybrid strategies characterized as ‘demonstrate’ in Chapter 2, and question why food movement organizations may enact the strategies they do given the neoliberal context of the dominant food system. Finally, I include a more in-depth consideration of ‘filling the cracks’ in the dominant food system utilizing the concepts of ‘convergence’ and ‘politics of the possible’ (introduced in Chapter 2) and how they relate to each other in initiatives that both demonstrate the potential of alternatives to offer a meaningful change, and seek their expansion across the food system. Providing a broad overview of how food movement organizations are working within and around the food system to advance change, I highlight possibilities for the food movement to transform the food system.
4.2 Publication Details

4.3 Manuscript Three

4.3.1 Abstract

Whether the food movement is most likely to transform the food system through ‘alternative’ or ‘oppositional’ initiatives has been the focus of considerable scholarly debate. Alternative initiatives are widespread but risk reinforcing the conventional food system by supporting neoliberal discourse and governance mechanisms, including localism, consumer choice, entrepreneurialism and self-help. While oppositional initiatives such as political advocacy have the potential for system-wide change, the current neoliberal political and ideological context dominant in Canada poses difficulties for initiatives that explicitly oppose the conventional food system. As such, some argue that the food movement requires convergence between alternative and oppositional initiatives. In this paper, we investigate convergence using survey results from 143 food movement organizations in four Canadian provinces. Results based on cluster analysis and descriptive statistics on organizational discourse, activities and visions of sustainable food systems demonstrate convergence around neoliberal discourse and governance mechanisms. Localism and consumer education characteristics are particularly prominent, with a majority of respondents describing their organizations as ‘local’, engaging in consumer education activities, and stating the importance of consumer education activities, indicating convergence around alternative, rather than oppositional, initiatives. While convergence around these discourse and strategies may limit the transformative potential of the food system when interpreted as neoliberalisation of the movement, such a reading does not demonstrate their full potential, as survey results also indicate trends of transformative visions of change and political engagement, particularly at the municipal level. This research demonstrates
that the movement can work simultaneously within, and opposed to, the conventional food system, and provides understanding of both neoliberal leanings and the politics of the possible of the food movement.

Keywords: Alternative food movement; Local food systems; neoliberalisation; convergence; quantitative methods

Abbreviations:

AFMA  Alberta Farmers’ Market Association
AFM  Alberta Food Matters
BCAFM  British Columbia Association of Farmers’ Markets
BCFSN  British Columbia Food Systems Network
FMNS  Farmers’ Markets of Nova Scotia
FMO  Farmers’ Markets Ontario
FSC  Food Secure Canada
NSFSN  Nova Scotia Food Security Network
SO  Sustain Ontario

4.3.2 Introduction

In an effort to build a food system that is socially just, environmentally sustainable and supports community economies, the food movement engages in a variety of initiatives, including organics, local, food security, farmers’ markets, and food sovereignty, among others. Given this diversity, scholars have begun considering whether these initiatives are too fractured to be effective in transforming the food system (Friedland, 2010) and are examining the extent to which diverse initiatives have converged into a cohesive food movement (Constance et al., 2014b). Convergence could occur either through shared visions and strategies, or strategic alliances (Constance et al., 2014b; Holt-Giménez & Shattuck, 2011). A key point of this body of scholarship centers on the
extent to which initiatives are ‘alternative’ or ‘oppositional’, sometimes referred to as ‘progressive’ or ‘radical’ (e.g. Allen, 2014; Holt-Giménez & Shattuck, 2011). Alternative initiatives work at incremental reform of the food system by providing opportunities to ‘opt out’, while oppositional initiatives aim to protest against, and fundamentally transform, the existing food system (Allen et al., 2003). Farmers’ markets, for example, are interpreted as “a wonderful alternative” that does little to challenge the conventional food system (Allen, 2014, p. 51). In contrast, oppositional initiatives are argued to be more likely to transform the food system since they directly oppose the dominant discourse, values and practices of the industrial food system, typically through movement mobilization, advocacy and engagement in policy processes and political change (Allen, 2014; Holt-Giménez & Wang, 2011). Initiatives can also incorporate both alternative and oppositional elements, such as social justice initiatives that include goals such as education, health care, and protection of natural resources (‘alternatives’) along with addressing income caps, equitable distribution of wealth, and communal ownership of resources such as land (‘oppositional’ initiatives) (Allen, 2014).

Precisely which types of food movement initiatives are most likely to transform the food system – and thus represent the most promising avenues for convergence – has been the focus of considerable scholarly debate (see McInnes & Mount, 2017 for a conceptual framework outlining strategies for food system transformation). Emphasizing active and ongoing citizen participation in the food system may bring more transformative change than key words such as ‘food sovereignty’ or ‘local food’ that have the potential for cooptation by advocates of the conventional food system (Kloppenburg et al., 2000). Additionally, incremental policy change provides a pragmatic strategy within a neoliberal context (Hassanein, 2003). Incremental change may be more palatable, and appear more feasible, to policy makers, and possibly fall under the radar as minor adjustments (Mount & Andrée, 2013). Yet some argue that without more oppositional elements, alternative food initiatives may not have the potential to change the food system in the long term, and may in fact do more to (unintentionally) reinforce the conventional food system, which is characterized by neoliberal policy, through
neoliberal subject formation (Guthman, 2008a). Neoliberalism in practice adjusts political economic policies to emphasize privatization of resources, deregulated markets, liberalized trade, and shifts regulatory and welfare responsibility to individuals, voluntary organizations and public-private partnerships; yet it may also influence how people understand the world and what types of activities are possible (Eaton, 2013). Some argue that neoliberal policy and ideology shapes possibilities for food system change strategies (Hinrichs & Eshleman, 2014), and that the food movement has embraced neoliberal rationalities and governance mechanisms through discourse, goals and activities (Guthman, 2008a). While not necessarily directly resulting in neoliberal policy formation (the realm of governments), the acceptance of neoliberal rationalities and strategies within food movement action and discourse may reproduce neoliberal mentalities, both discursively and in practice, reinforcing neoliberal structures by defining “the rhetoric and practice of the politically possible” (Guthman, 2008a).

Guthman (2008a) highlights four key characteristics of alternative food initiatives that intrinsically support neoliberal rationalities, including ‘local’ discourse, consumer choice, entrepreneurialism and self-improvement. These characteristics broadly support neoliberal rationalities through: (1) turning away from political arenas that traditionally govern food politics (localism; entrepreneurialism); (2) prioritizing economic values over social and environmental values (localism); (3) placing responsibility for food systems change on individuals, in some cases reducing citizens to consumers (consumer choice; self-help); and (4) conceding secession of state responsibilities for social and environmental programs and regulations (entrepreneurialism; consumer choice; self-help) (Guthman, 2008a; Levkoe, 2011). Yet this is a contentious issue: Kloppenburg and Hassanein (2006) argue that requiring true opposition to conventionalization in all elements of a sustainable food initiative must result in conventionalization of any such initiative given the variability of ‘oppositionality’ in initiatives. Harris (2009) also critiques the conventionalization/neoliberalisation reading of the food movement, arguing that in such an analysis “neoliberalism is represented not only as self-reproducing, but also as able to colonise all alternatives even as they emerge” (60) and instead advocates
following Gibson-Graham (2006) in ‘reading for difference’. Rather than viewing alternative food movement strategies as neoliberalisation of the food movement, some scholars promote viewing alternative initiatives as case studies that demonstrate possibilities for the future; that is, a politics of the possible (Cameron & Wright, 2014). The ‘politics of the possible’ framework examines the widespread impact of alternative initiatives (Goodman et al., 2014), and the ways in which these initiatives are meaningfully different from the conventional food system (Andrée et al., 2014).

Despite the considerable amount of literature published debating the transformative potential of the food movement and the extent to which the movement – and various initiatives within it – can be considered ‘alternative’ or ‘oppositional’, little research to date has included systematic assessments of the extent of convergence within the food movement around alternative or oppositional initiatives (Constance et al., 2014a). Therefore, the aim of this paper is to:

1. Build on the systematic assessment initiated in Constance et al. (2014b) to address this gap;
2. Provide a new analytical perspective in the food movement literature, which commonly utilizes conceptual and qualitative analysis (Marsden & Franklin, 2013), by completing quantitative analysis of survey results from 143 food movement organizations in British Columbia, Alberta, Ontario and Nova Scotia; and
3. Examine neoliberal tendencies and politics of the possible within the food movement.

Following a brief summary of neoliberal policy in Canada’s food system, we outline our research methods and present survey results on organizational visions of a ‘sustainable food system’, policy goals, activities, and discourse in four provinces across Canada, examining patterns of convergence with cluster analysis and descriptive statistics. We then consider the implications of the results for both neoliberalisation of the food movement and a politics of the possible.
4.3.3 Research Context: Canadian Food Policy

Canadian food policy today is characterized by neoliberal policy emphasizing trade liberalization and economic growth (AAFC 2012; Blay-Palmer 2012). Such policies ensure that the food system plays an important role in the Canadian economy, supplying one in eight jobs and accounting for 8.1% of the total GDP in 2010 (AAFC 2012). Canada, a strong competitor in the global market, was the fifth largest exporter ($35.5 billion) and sixth largest importer ($28 billion) of food products in 2010 (AAFC 2012). Despite the apparent (financial) successes of Canadian agriculture, scholars criticize contemporary Canadian food policy for failing to maintain a socially and environmentally just food system. In an effort to lower production costs and reduce impediments to business to enhance economic growth, neoliberal policy allows corporations to externalize environmental costs of agriculture (Eaton 2013; MacRae 2011). Without regulatory responsibility for environmental destruction, some environmental thresholds have been surpassed (e.g. some fisheries) and others are threatened (e.g. water, soil, biodiversity) (MacRae 2011). In addition, nearly 2.5 million Canadians are classified as food insecure (Wiebe and Wipf 2011) and low commodity prices have caused declining farmer incomes while corporations experience record profits (Magnan 2011; Qualman 2011). While the Canadian government has recognized the social and environmental issues associated with conventional production, there have been no significant changes towards sustainability (MacRae et al. 2012a). The federal government has recently tabled the Federal Sustainable Development Strategy, which includes sustainable food in its 13 goals (ECCC 2016). While promising, the strategy is in its early stages. As such, an examination of neoliberal tendencies within food movements is particularly relevant in Canada, where organizations are working within a context of federal agrifood policy that is based on neoliberalism (AAFC 2012; Blay-Palmer 2012). Some argue that the food movement must operate in explicit opposition to this policy, given its contribution to problems in Canada’s food system (Eaton 2013; Rosset 2008).
4.3.4 Methods

In this paper, we present the results from an online survey distributed to food movement organizations in British Columbia, Alberta, Ontario and Nova Scotia between February and June 2015. The survey, which took most participants approximately 20 minutes to complete, included closed-ended and Likert style questions based on scholarship regarding the ‘transformative potential’ of the food movement (e.g. Holt-Giménez & Shattuck, 2011; Allen et al., 2003; Guthman, 2008b; Mount et al., 2013; Levkoe, 2011). These studies utilized open-ended research and critical analysis to examine food movement discourse, visions and strategies. Though the survey questions in this study were closed-ended, we reduced potential researcher bias by building on this work and including responses previously used by organizations, as well as space for additional responses not considered by the researchers. The survey asked respondents to reflect on their work over the past two years, focusing on organizational discourse, engaged activities, visions of sustainable food systems, and the actions and policies needed to achieve these visions. Specific questions are noted in the relevant tables.

4.3.4.1 Population

While individuals undoubtedly play an important role in the food movement, organizations and groups working on food-related initiatives explicitly represent the collective effort of the food movement (Levkoe & Wakefield, 2014). Such a population is suitable for this project, which aims to investigate convergence within the broad Canadian food movement. Levkoe and Wakefield (2014) provide one of few studies that focus on the Canadian food movement as a collective unit, rather than individual food initiatives; as such, their sampling methods provide rare direction for researchers seeking to investigate the food movement as a whole, since “even scholars who make reference to an elusive ‘food movement’ rarely explain what it is” (Levkoe & Wakefield, 2014). Following Levkoe and Wakefield (2014), we used provincial food networks to define the population of organizations and groups working on food issues, including the British Columbia Food Systems Network (BCFSN), Alberta Food Matters (AFM), Sustain Ontario (SO), and the Nova Scotia Food Security Network (NSFSN). Provincial
food movement networks aim to foster collective action amongst food movement organizations to achieve food systems change, and researchers suggest these networks have the potential to achieve transformative systemic change (Levkoe, 2014). We also used the national food movement network Food Secure Canada (FSC), which is aimed at advancing food security and food sovereignty in Canada (Food Secure Canada, 2016). The emphasis on food sovereignty suggests that the work of members of this network may be considered transformative (Holt-Giménez & Shattuck, 2011).

Aiming to investigate similarities and differences between the (potentially) opposition-oriented national and provincial networks, and alternative-oriented organizations, we also distributed the survey to farmers’ market networks in each province: the British Columbia Association of Farmers’ Markets (BCAFM), Alberta Farmers’ Market Association (AFMA), Farmers’ Markets Ontario (FMO), and Farmers’ Markets of Nova Scotia (FMNS). We chose farmers’ markets to represent alternative-oriented initiatives because they are critiqued for separating from the conventional food system without challenging it (Allen et al., 2003), but also recognized for having widespread impact (Beckie et al., 2012).

4.3.4.2 Sampling Design

To survey a diverse sample of food movement organizations, our recruitment letter asked for participation by organizations working on building a sustainable food system, rather than participation in specific movements such as the local food movement, or specific initiatives. For instance, though the organizations based their work in Canada, participant organizations included those aimed at global issues including sustainable seafood, food security and biotechnology, as well as local issues such as community supported agriculture and farmers’ markets. We determined organization members from national and provincial network websites, and sent the survey to all organizations with updated contact information. This included 33 organizations in British Columbia, 14 in Alberta, 64 in Ontario, and 43 in Nova Scotia, for a total of 154 organizations. We contacted provincial farmers’ market associations for email lists of their member organizations.
organizations, and again sent the survey to all organizations with updated contact information in three provinces: 86 in British Columbia, 159 in Ontario and 43 in Nova Scotia. AFMA preferred to send the recruitment email to their 121 organization members.

We sent four follow-up reminder emails, and completed follow-up phone calls with the remaining provincial network member organizations in British Columbia, Alberta and Nova Scotia to boost responses from these groups. Some organizations sent the survey to other members of their informal networks, and distributed it on provincial listservs and social media accounts, making response rate difficult to determine. Estimated response rates based on the total number of responses by the number of organizations initially contacted for each network indicate higher response rates for national and provincial networks (BCFSN – 30.3%; AFM – 71.4%; SO – 50.0%; NSFSN – 20.9%; FSC – 77.1%) than farmers’ market networks (BCAFM – 14.0%; AFMA – 7.4%; FMO – 15.1%; FMNS – 32.6%).

4.3.4.3 Sample Characteristics

The final sample included 28 organizations in British Columbia, 26 organizations in Alberta, 59 organizations in Ontario, 28 organizations in Nova Scotia, and 1 national organization completing work in all four provinces, for a total of 142 organizations. The sample was fairly evenly distributed between provincial networks and farmers’ market associations (Table 4.1). The sampled organizations represented diverse interests, such as farmers’ markets (often considered alternative), and policy think tanks and activists groups (often considered oppositional). In all provinces, most organizations were non-profit, educational, community or grassroots groups (Table 4.2). Some organizations were government institutions, government-community partnerships or marketing boards, and few organizations were for-profit or cooperative organizations. One member of each organization, primarily individuals in higher-level positions, completed the survey. The majority of respondents were board members, managers, presidents, chairs, co-chairs, directors, coordinators or supervisors (105; 73.4%). Other
respondents included business owners (3; 2.1%), farmers or gardeners (6; 4.2%), nutritionists or dieticians (7; 4.9%), volunteers (2; 1.4%) or other (e.g. treasurer) (19; 13.3%).

Table 4.1: Organization membership.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Number</th>
<th>Percent of Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta Farmers’ Market Association</td>
<td>9</td>
<td>6.3</td>
</tr>
<tr>
<td>Alberta Food Matters</td>
<td>10</td>
<td>7.0</td>
</tr>
<tr>
<td>British Columbia Association of Farmers’ Markets</td>
<td>12</td>
<td>8.5</td>
</tr>
<tr>
<td>British Columbia Food Systems Network</td>
<td>10</td>
<td>7.0</td>
</tr>
<tr>
<td>Farmers’ Markets Ontario</td>
<td>24</td>
<td>16.9</td>
</tr>
<tr>
<td>Sustain Ontario</td>
<td>32</td>
<td>22.5</td>
</tr>
<tr>
<td>Farmers’ Markets of Nova Scotia</td>
<td>14</td>
<td>9.9</td>
</tr>
<tr>
<td>Nova Scotia Food Security Network</td>
<td>9</td>
<td>6.3</td>
</tr>
<tr>
<td>Food Secure Canada</td>
<td>37</td>
<td>26.1</td>
</tr>
</tbody>
</table>

Table 4.2: Organization type by province.

<table>
<thead>
<tr>
<th>Organization</th>
<th>British Columbia</th>
<th>Alberta</th>
<th>Ontario</th>
<th>Nova Scotia</th>
<th>National</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% (column)</td>
<td>n</td>
<td>% (column)</td>
<td>n</td>
<td>% (column)</td>
</tr>
<tr>
<td>Non-profit, educational, community or grassroots group</td>
<td>25</td>
<td>89.3</td>
<td>20</td>
<td>76.9</td>
<td>40</td>
<td>69.5</td>
</tr>
<tr>
<td>For-Profit</td>
<td>1</td>
<td>3.6</td>
<td>2</td>
<td>7.7</td>
<td>12</td>
<td>20.3</td>
</tr>
<tr>
<td>Cooperative</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Government institution, community-government partnership or marketing board</td>
<td>2</td>
<td>7.1</td>
<td>4</td>
<td>15.4</td>
<td>5</td>
<td>8.5</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
<td>26</td>
<td>100.0</td>
<td>59</td>
<td>100.0</td>
</tr>
</tbody>
</table>
4.3.4.4 Data Analysis

Following Constance et al. (2014a) and (Holt-Giménez & Shattuck, 2011), we defined convergence as shared visions for a sustainable food system and strategies for attaining it across organizations involved in a broad ‘sustainable food movement’ with diverse aims. The extent of convergence (or divergence) was determined through cluster analysis, in which clusters of data points (respondents) are identified based on a high similarity in researcher-selected variables. In this case, the organizations were grouped based on their responses to survey questions focusing on organizational discourse, engaged activities, visions of sustainable food systems, and the actions and policies needed to achieve these visions. In addition, descriptive statistics were analyzed to determine whether a high number of participants responded similarly, an additional indication of convergence.

We conducted hierarchical cluster analysis (n = 93) based on organizational perceptions of sustainable food system visions (including visions of a sustainable food system and perceptions of policies needed to achieve a sustainable food system) with the intent to examine whether organizational strategies (measured by engaged activities) differed between models, following frameworks of organizational characteristics and transformative potential of various food initiatives consistent with the food movement literature (e.g. Holt-Giménez & Shattuck, 2011; Guthman, 2008b; Allen et al., 2003; Mount et al., 2013). We also conducted hierarchical cluster analysis (n = 86) based on both visions and strategies to determine convergence (or divergence) across these characteristics. Organizations with missing data for the relevant variables were excluded from the analysis. We used three diverse distance measures (nearest neighbour, furthest neighbour and Ward’s methods) to ensure that the data, rather than the clustering method, determined the cluster structure (Burns & Burns, 2008; Romesburg, 1984). We then completed descriptive statistics on each of the variables included in the cluster analysis to examine sample characteristics. All statistics were carried out using SPSS (Version 23.0.0.0).
4.3.5 Results

4.3.5.1 Cluster Analysis

The dendrograms and agglomeration step tables indicated a single cluster solution for all distance measures when the hierarchical cluster analysis included variables to measure organizational perceptions of sustainable food system model, including visions of a sustainable food system and perceptions of policies needed to achieve a sustainable food system (n = 93). A second hierarchical cluster analysis including both model and approach, to determine whether organizational approach could differentiate types of organizations involved in the food movement, again resulted in dendrograms and agglomeration step tables that indicated a single cluster solution for all distance measures (n = 86).

4.3.5.2 Descriptive Statistics

Given the single cluster solution indicating one cohesive group of organizations, we completed descriptive statistics on the full sample (n = 142). We examined the variables included in the cluster analysis to determine the characteristics of the organizations in terms of organizational discourse, activities, and visions of sustainable food systems. When asked to choose a concept that best describes the organization, ‘local food’ was the most commonly chosen concept overall as well as for each province (Table 4.3).
Table 4.3: Frequency of concept chosen by organizations to describe their work, by province.

<table>
<thead>
<tr>
<th></th>
<th>British Columbia</th>
<th>Alberta</th>
<th>Ontario</th>
<th>Nova Scotia</th>
<th>National</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (column)</td>
<td>n (column)</td>
<td>n (column)</td>
<td>n (column)</td>
<td>n (column)</td>
<td>n (column)</td>
</tr>
<tr>
<td>Food Security or Food Aid</td>
<td>5</td>
<td>17.9</td>
<td>5</td>
<td>19.2</td>
<td>3</td>
<td>5.1</td>
</tr>
<tr>
<td>Sustainable Agriculture or Sustainable Seafood</td>
<td>4</td>
<td>14.3</td>
<td>1</td>
<td>3.8</td>
<td>12</td>
<td>20.3</td>
</tr>
<tr>
<td>Food Justice</td>
<td>1</td>
<td>3.6</td>
<td>1</td>
<td>3.8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Food Sovereignty</td>
<td>1</td>
<td>3.6</td>
<td>1</td>
<td>3.8</td>
<td>4</td>
<td>6.8</td>
</tr>
<tr>
<td>Food or Farming Enterprise</td>
<td>2</td>
<td>7.1</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>8.5</td>
</tr>
<tr>
<td>Local Food</td>
<td>12</td>
<td>42.9</td>
<td>10</td>
<td>38.5</td>
<td>28</td>
<td>47.5</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>10.7</td>
<td>8</td>
<td>30.8</td>
<td>7</td>
<td>11.9</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
<td>26</td>
<td>100.0</td>
<td>59</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: The survey question asked: "Which of the following terms most accurately describes the work of your organization?" with respondents able to select one of Food Security, Sustainable Agriculture, Food Justice, Food Sovereignty, Food Enterprise, Local Food or Other. Where listed in the table, some ‘Other’ responses were combined with the listed selections for analytical purposes.

Organizations that described themselves as local most commonly listed their primary focus as viable farm income, closely followed by food access (Table 4). While primary focus differed by province, general tendencies towards focusing on either viable farm income or food access (or both) were consistent across the four provinces, with the exception of British Columbia, which had equal responses for environmental sustainability as well as viable farm income and food access.

Although no local food organizations listed political change as their primary focus, nearly half of all local food organizations stated that they have reached out or lobbied to a municipal government and nearly a quarter stated that they have reached out or lobbied to a provincial government (Table 4.4). Few organizations have reached out or lobbied the federal government in a similar manner. Over half of local food organizations have partnered with municipal governments on project implementation, with fewer organizations partnering with provincial governments and no organizations
partnering with the federal government. These general trends were consistent across each of the four provinces.

Table 4.4: Primary focus and government engagement of local food organizations, by province.

<table>
<thead>
<tr>
<th>Primary Focus¹</th>
<th>British Columbia</th>
<th>Alberta</th>
<th>Ontario</th>
<th>Nova Scotia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% (row)</td>
<td>n</td>
<td>% (row)</td>
<td>n</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>3</td>
<td>27.3</td>
<td>2</td>
<td>20.0</td>
<td>4</td>
</tr>
<tr>
<td>Social justice</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>10.0</td>
<td>0</td>
</tr>
<tr>
<td>Economic development</td>
<td>1</td>
<td>9.1</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>Viable farm income</td>
<td>3</td>
<td>27.3</td>
<td>1</td>
<td>10.0</td>
<td>10</td>
</tr>
<tr>
<td>Food access</td>
<td>3</td>
<td>27.3</td>
<td>4</td>
<td>40.0</td>
<td>6</td>
</tr>
<tr>
<td>Diet and health</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>Consumer education (e.g. school programs or community kitchens)</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>10.0</td>
<td>0</td>
</tr>
<tr>
<td>Consumer awareness (e.g. promotion of local markets)</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>10.0</td>
<td>4</td>
</tr>
<tr>
<td>Producer education or training</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Political change</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressured or targeted²</th>
<th>Municipal government</th>
<th>Provincial government</th>
<th>Federal government</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC: n = 12; AB: n = 10; ON: n = 28; NS: n = 14; Total: n = 63. 2. The survey question asked: “Which of the following groups has your organization pressured or targeted for engagement (e.g. outreach or lobbying to change practices) in the past 2 years? (Select all that apply)” with relevant response options listed in the table; BC: n = 12; AB: n = 8; ON: n = 25; NS: n = 14; Total: n = 59. 3. The survey question asked: “Which of the following groups has your organization partnered with to implement projects in the past 2 years (e.g. partnered on grant applications, or planning or implementation of activities or programs)? (Select all that apply)” with relevant response options listed in the table; BC: n = 12; AB: n = 10; ON: n = 27; NS: n = 14; Total: n = 63. A total of 12 organizations in BC, 10 in AB, 28 in ON, 14 in NS, and 64 total described as local food organizations. Missing data accounts for variation in the numbers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal government</td>
<td>7</td>
<td>58.3</td>
<td>5</td>
</tr>
<tr>
<td>Provincial government</td>
<td>5</td>
<td>41.7</td>
<td>2</td>
</tr>
<tr>
<td>Federal government</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
</tbody>
</table>

Activities that prioritize consumer choice and entrepreneurial activities, including consumer awareness or education, farmers’ markets, and other distribution services
were common across the four provinces, although political advocacy activities were also common (Table 4.5). Self-help activities were also somewhat common, including producer education or training, and community, school or urban gardens. Of those organizations engaged in consumer awareness activities, cultural value of food and advertisement of local markets were the most common foci.
Table 4.5: Organization strategies, including activity engagement, consumer education activities, policy goals, and government lobbying and partnerships, by province.

<table>
<thead>
<tr>
<th>Activity Engagement</th>
<th>British Columbia</th>
<th>Alberta</th>
<th>Ontario</th>
<th>Nova Scotia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At least once a month</td>
<td>Total</td>
<td>At least once a month</td>
<td>Total</td>
<td>At least once a month</td>
</tr>
<tr>
<td>Producer education</td>
<td>10</td>
<td>37.0</td>
<td>27</td>
<td>10</td>
<td>38.5</td>
</tr>
<tr>
<td>Gardens (community, school, urban)</td>
<td>9</td>
<td>33.3</td>
<td>27</td>
<td>14</td>
<td>53.8</td>
</tr>
<tr>
<td>Emergency Food Provision</td>
<td>4</td>
<td>16.0</td>
<td>25</td>
<td>4</td>
<td>15.4</td>
</tr>
<tr>
<td>Locally-sourced emergency food provision</td>
<td>6</td>
<td>23.1</td>
<td>26</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>Food labelling</td>
<td>8</td>
<td>29.6</td>
<td>27</td>
<td>9</td>
<td>34.6</td>
</tr>
<tr>
<td>Farmland preservation</td>
<td>7</td>
<td>25.0</td>
<td>28</td>
<td>3</td>
<td>11.5</td>
</tr>
<tr>
<td>Agricultural Research</td>
<td>2</td>
<td>7.4</td>
<td>27</td>
<td>4</td>
<td>15.4</td>
</tr>
<tr>
<td>Political advocacy</td>
<td>11</td>
<td>40.7</td>
<td>27</td>
<td>8</td>
<td>30.8</td>
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<tr>
<td>Consumer education or awareness</td>
<td>19</td>
<td>70.4</td>
<td>27</td>
<td>18</td>
<td>69.2</td>
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<tr>
<td>Farmers’ market</td>
<td>12</td>
<td>44.4</td>
<td>27</td>
<td>11</td>
<td>42.3</td>
</tr>
<tr>
<td>Other distribution service</td>
<td>12</td>
<td>46.2</td>
<td>26</td>
<td>10</td>
<td>40.0</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>100</td>
<td>3</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>Consumer Awareness/Education Activities</td>
<td>8</td>
<td>32.0</td>
<td>25</td>
<td>11</td>
<td>50.0</td>
</tr>
<tr>
<td>Community health or nutrition</td>
<td>15</td>
<td>60.0</td>
<td>25</td>
<td>11</td>
<td>50.0</td>
</tr>
<tr>
<td>Policy Goals</td>
<td>British Columbia</td>
<td>Alberta</td>
<td>Ontario</td>
<td>Nova Scotia</td>
<td>Total</td>
</tr>
<tr>
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<td>-----------------</td>
<td>---------</td>
<td>---------</td>
<td>-------------</td>
<td>-------</td>
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<tr>
<td>Value of food</td>
<td>18  72.0  25  17  77.3  22  35  71.4  49</td>
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<td></td>
<td></td>
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<tr>
<td>Environmental impacts of conventional food production</td>
<td>13  52.0  25  9  40.9  22  19  38.8  49</td>
<td>7  28.0  25</td>
<td></td>
<td>49  40.2  122</td>
<td></td>
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<tr>
<td>Food safety</td>
<td>12  48.0  25  10  45.5  22  23  46.9  49</td>
<td>12  48.0  25</td>
<td></td>
<td>58  47.5  122</td>
<td></td>
</tr>
<tr>
<td>Knowledge networks or coalitions</td>
<td>18  72.0  25  12  54.5  22  29  59.2  49</td>
<td>15  60.0  25</td>
<td></td>
<td>75  61.5  122</td>
<td></td>
</tr>
<tr>
<td>Promotion of local markets</td>
<td>18  72.0  25  14  63.6  22  36  73.5  49</td>
<td>19  76.0  25</td>
<td></td>
<td>87  71.3  122</td>
<td></td>
</tr>
<tr>
<td>Reduce/eliminate government interventions in the market</td>
<td>3  13.0  23  1  6.7  15</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Local procurement</td>
<td>20  87.0  23  9  60.0  15  31  79.5  39</td>
<td>14  82.4  17</td>
<td></td>
<td>75  78.9  95</td>
<td></td>
</tr>
<tr>
<td>Poverty elimination</td>
<td>8  34.8  23  10  66.7  15  14  35.9  39</td>
<td>4  23.5  17</td>
<td></td>
<td>36  37.9  95</td>
<td></td>
</tr>
<tr>
<td>Gender equity</td>
<td>4  17.4  23  2  13.3  15  6  15.4  39</td>
<td>4  23.5  17</td>
<td></td>
<td>17  17.9  95</td>
<td></td>
</tr>
<tr>
<td>Farmworker rights</td>
<td>4  17.4  23  1  6.7  15  8  20.5  39</td>
<td>5  29.4  17</td>
<td></td>
<td>19  20.0  95</td>
<td></td>
</tr>
<tr>
<td>Indigenous agricultural capacity</td>
<td>7  30.4  23  0  0.0  15  7  17.9  39</td>
<td>2  11.8  17</td>
<td></td>
<td>17  17.9  95</td>
<td></td>
</tr>
<tr>
<td>Local/regional policy councils</td>
<td>14  60.9  23  7  46.7  15  16  41.0  39</td>
<td>4  23.5  17</td>
<td></td>
<td>42  44.2  95</td>
<td></td>
</tr>
<tr>
<td>Support for new farmers</td>
<td>15  65.2  23  5  33.3  15  29  74.4  39</td>
<td>14  82.4  17</td>
<td></td>
<td>64  67.4  95</td>
<td></td>
</tr>
<tr>
<td>Support for small-scale farmers</td>
<td>18  78.3  23  8  53.3  15  32  82.1  39</td>
<td>13  76.5  17</td>
<td></td>
<td>72  75.8  95</td>
<td></td>
</tr>
<tr>
<td>Participatory democracy/inclusive public consultations</td>
<td>12  52.2  23  4  26.7  15  15  38.5  39</td>
<td>5  29.4  17</td>
<td></td>
<td>37  38.9  95</td>
<td></td>
</tr>
<tr>
<td>Environmental incentives (e.g. payments for ecosystem services)</td>
<td>5  21.7  23  1  6.7  15  11  28.2  39</td>
<td>0  0.0  17</td>
<td></td>
<td>18  18.9  95</td>
<td></td>
</tr>
<tr>
<td>Environmental regulations (e.g. restriction of chemical inputs on farms)</td>
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<td>Alberta</td>
<td>Ontario</td>
<td>Nova Scotia</td>
<td>Total</td>
</tr>
<tr>
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<td></td>
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<td>30.5</td>
<td>17</td>
<td>2</td>
<td>15.8</td>
</tr>
<tr>
<td>Resource equity (e.g. land, seed, water)</td>
<td>10</td>
<td>43.5</td>
<td>23</td>
<td>3</td>
<td>20.0</td>
</tr>
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<td>31</td>
<td>32.6</td>
<td>17</td>
<td>3</td>
<td>15.8</td>
</tr>
<tr>
<td>Incentives for socially just practices (e.g. tax incentives for fair trade initiatives)</td>
<td>3</td>
<td>13.0</td>
<td>23</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>15.4</td>
<td>39</td>
<td>3</td>
<td>17.6</td>
</tr>
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<td>15</td>
<td>15.8</td>
<td>17</td>
<td>3</td>
<td>15.8</td>
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<td>Student nutrition programs</td>
<td>7</td>
<td>30.4</td>
<td>23</td>
<td>15</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>30.8</td>
<td>39</td>
<td>4</td>
<td>23.5</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>35.8</td>
<td>95</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pressured or targeted**

<table>
<thead>
<tr>
<th>Pressured or targeted</th>
<th>British Columbia</th>
<th>Alberta</th>
<th>Ontario</th>
<th>Nova Scotia</th>
<th>Total</th>
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<tbody>
<tr>
<td>Municipal government</td>
<td>22</td>
<td>78.6</td>
<td>28</td>
<td>12</td>
<td>54.5</td>
</tr>
<tr>
<td>Provincial government</td>
<td>14</td>
<td>50.0</td>
<td>28</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td>Federal government</td>
<td>3</td>
<td>10.7</td>
<td>28</td>
<td>3</td>
<td>13.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partnered with</th>
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<th>Alberta</th>
<th>Ontario</th>
<th>Nova Scotia</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Municipal government</td>
<td>21</td>
<td>75.0</td>
<td>28</td>
<td>16</td>
<td>61.5</td>
</tr>
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<td>Provincial government</td>
<td>15</td>
<td>53.6</td>
<td>28</td>
<td>10</td>
<td>38.5</td>
</tr>
<tr>
<td>Federal government</td>
<td>2</td>
<td>7.1</td>
<td>28</td>
<td>1</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Note. 1. The survey question asked: “Over the past 2 years, how frequently has your organization engaged in each of the following activities?” with response options listed in the table. 2. As follow-up to those engaged in consumer awareness or education, the survey question asked: “Which of the following consumer education/awareness/conscious raising activities does your organization engage in? (Select all that apply)” with response options listed in the table. 3. As follow-up to those engaged in political advocacy, the survey question asked: “Which of the following policy goals does your organization’s activities work toward? (Select all that apply)” with response options listed in the table. 4. The survey question asked: “Which of the following groups has your organization pressured or targeted for engagement (e.g. outreach or lobbying to change practices) in the past 2 years? (Select all that apply)” with relevant response options listed in the table. 5. The survey question asked: “Which of the following groups has your organization partnered with to implement projects in the past 2 years (e.g. partnered on grant applications, or planning or implementation of activities or programs)? (Select all that apply)” with relevant response options listed in the table. A total of 28 organizations in BC, 26 in AB, 59 in ON and 28 in NS completed the survey. Totals differ due to missing data.
Between 30.8% and 43.9% of organizations in each province engaged in political advocacy at least once a month, although, when asked specifically, more organizations indicated that they have lobbied, targeted or pressured municipal governments to create change. Fewer organizations in each province have targeted provincial governments, and fewer again have targeted the federal government. More organizations in each province indicated that they have partnered with governments to create change than lobbied governments. Similar to lobbying governments, there were trends towards more partnerships at the municipal level, with declining partnerships at the provincial and federal levels.

Of those organizations engaged in policy change, the most common policy goals included local procurement, and support for new and small-scale farmers. In terms of environmental policy goals, regulations were more common than incentives. In terms of social justice policy goals, poverty elimination, student nutrition programs, participatory democracy and resource equity were more common than gender equity, farmworker rights, Indigenous agricultural capacity, and incentives, but not prevalent in the sample.

Examining the highest average ‘importance’ ranking of each activity, consumer education or awareness activities were considered the most important activities to engage in, even by organizations that engage in political advocacy at least once a month (Table 4.6). Political advocacy did not have the highest average importance ranking by any group of organizations, including those working on political advocacy. Organizations working on community or school gardens, farmland preservation, consumer awareness or education, farmers’ markets, and other distribution services all had the highest average importance ranking for their respective activities, although organizations engaged in farmland preservation and distribution services ranked consumer education and awareness activities as equally important on average.
Table 4.6: Importance of alternative food activities by engaged activity.

<table>
<thead>
<tr>
<th>Activity engaged in at least once a month</th>
<th>Level of importance attributed to engaged activity (mean)</th>
<th>n</th>
<th>Activity considered most important by activity engagement</th>
<th>Level of importance attributed to most important activity (mean)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producer education</td>
<td>4.58</td>
<td>64</td>
<td>Consumer Education or Awareness</td>
<td>4.69</td>
<td>64</td>
</tr>
<tr>
<td>Gardens (community, school, urban)</td>
<td>4.67</td>
<td>48</td>
<td>Gardens</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Emergency food provision</td>
<td>4.11</td>
<td>18</td>
<td>Gardens</td>
<td>4.68</td>
<td>19</td>
</tr>
<tr>
<td>Locally-sourced emergency food provision</td>
<td>4.17</td>
<td>18</td>
<td>Consumer Education or Awareness</td>
<td>4.59</td>
<td>17</td>
</tr>
<tr>
<td>Food labelling</td>
<td>4.18</td>
<td>40</td>
<td>Consumer Education or Awareness</td>
<td>4.64</td>
<td>39</td>
</tr>
<tr>
<td>Farmland preservation</td>
<td>4.73</td>
<td>26</td>
<td>Farmland Preservation tied with Consumer Education or Awareness</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Agricultural research</td>
<td>4.4</td>
<td>25</td>
<td>Consumer Education or Awareness</td>
<td>4.76</td>
<td>25</td>
</tr>
<tr>
<td>Political advocacy</td>
<td>4.53</td>
<td>53</td>
<td>Consumer Education or Awareness</td>
<td>4.69</td>
<td>54</td>
</tr>
<tr>
<td>Consumer education or awareness</td>
<td>4.71</td>
<td>90</td>
<td>Consumer Education or Awareness</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Farmers’ market</td>
<td>4.76</td>
<td>71</td>
<td>Farmers’ Markets</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Other distribution service</td>
<td>4.49</td>
<td>55</td>
<td>Distribution Services tied with Consumer Education or Awareness</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td>N/A</td>
<td>N/A</td>
<td>Consumer Education or Awareness</td>
<td>4.56</td>
<td>140</td>
</tr>
</tbody>
</table>

Note. The survey question asked: “According to your organization, how important are the following actions for creating a more sustainable food system? You do not need to confine your responses to activities with which your organization is engaged.” with Likert scale responses from 1 (Not at all important) to 5 (Extremely important).

Overall, food organizations found regulations more important than incentives, and environmentally oriented policies more important than social justice oriented policies, although both incentives and regulations, and environmentally and socially just policies, were all considered important. Policy that dismantles corporate monopolies was also considered important by most organizations (64.5%). Twenty-seven percent of
organizations considered trade liberalization as “neither important nor unimportant”, and 34.7% of organizations considered liberalization policies “unimportant” (Table 4.7).

Table 4.7: Food organizations perceptions of the importance and likelihood of enacting government policies.

<table>
<thead>
<tr>
<th>Importance 1</th>
<th>(1) Not important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>(5) Extremely important</th>
<th>Unsure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># (row)</td>
<td># (row)</td>
<td># (row)</td>
<td># (row)</td>
<td># (row)</td>
<td># (row)</td>
<td># (row)</td>
</tr>
<tr>
<td>Environmental incentives</td>
<td>2 1.4</td>
<td>3 2.1</td>
<td>19 13.5</td>
<td>56 39.7</td>
<td>44 31.2</td>
<td>17 12.1</td>
<td>141</td>
</tr>
<tr>
<td>Social incentives</td>
<td>4 2.8</td>
<td>4 2.8</td>
<td>25 17.6</td>
<td>50 35.2</td>
<td>42 29.6</td>
<td>17 12.0</td>
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</tr>
<tr>
<td>Environmental regulations</td>
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<td>4 2.8</td>
<td>24 17.0</td>
<td>42 29.8</td>
<td>57 40.4</td>
<td>13 9.2</td>
<td>141</td>
</tr>
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<td>Social regulations</td>
<td>4 2.8</td>
<td>3 2.1</td>
<td>21 14.9</td>
<td>50 35.5</td>
<td>49 34.8</td>
<td>14 9.9</td>
<td>141</td>
</tr>
<tr>
<td>Dismantle corporate monopolies</td>
<td>7 5.0</td>
<td>5 3.5</td>
<td>23 16.3</td>
<td>43 30.5</td>
<td>48 34.0</td>
<td>15 10.6</td>
<td>141</td>
</tr>
<tr>
<td>Trade liberalization</td>
<td>27 19.1</td>
<td>22 15.6</td>
<td>38 27.0</td>
<td>23 16.3</td>
<td>5 3.5</td>
<td>26 18.4</td>
<td>141</td>
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</table>

<table>
<thead>
<tr>
<th>Likelihood 2</th>
<th>(1) Extremely unlikely</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>(5) Extremely likely</th>
<th>Unsure</th>
<th>Total</th>
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<td>26 18.4</td>
<td>47 33.3</td>
<td>7 5.0</td>
<td>19 13.5</td>
<td>141</td>
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<tr>
<td>Social incentives</td>
<td>10 7.1</td>
<td>56 39.7</td>
<td>29 20.6</td>
<td>21 14.9</td>
<td>6 4.3</td>
<td>19 13.5</td>
<td>141</td>
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<tr>
<td>Environmental regulations</td>
<td>15 10.6</td>
<td>56 39.7</td>
<td>16 11.3</td>
<td>32 22.7</td>
<td>5 3.5</td>
<td>17 12.1</td>
<td>141</td>
</tr>
<tr>
<td>Social regulations</td>
<td>10 7.1</td>
<td>59 41.8</td>
<td>35 24.8</td>
<td>14 9.9</td>
<td>5 3.5</td>
<td>18 12.8</td>
<td>141</td>
</tr>
<tr>
<td>Dismantle corporate monopolies</td>
<td>73 51.8</td>
<td>37 26.2</td>
<td>9 6.4</td>
<td>3 2.1</td>
<td>4 2.8</td>
<td>15 10.6</td>
<td>141</td>
</tr>
<tr>
<td>Trade liberalization</td>
<td>9 6.4</td>
<td>21 15.0</td>
<td>24 17.1</td>
<td>27 19.3</td>
<td>33 23.6</td>
<td>26 18.6</td>
<td>140</td>
</tr>
</tbody>
</table>

Note. 1. The survey question asked: “According to your organization, how important are the following governmental policies for creating a more sustainable food system?” 2. The survey question asked: “Based on your understanding of Canadian food policy, how likely do you think the following policies are to be implemented?”

Despite organizational efforts towards regulations (as opposed to incentives), organizations generally perceived incentives as more likely to be implemented than regulations, and environmentally-focused policies more likely to be implemented than socially just policies (Table 4.7). Most organizations viewed policy that dismantles
corporate monopolies as extremely unlikely, and policies that support trade liberalization as more likely than unlikely.

### 4.3.6 Discussion - Convergence Around Alternatives: Neoliberalism or Politics of the Possible?

Results from the cluster analysis indicate that the organizations surveyed in this project are not substantially different from one another, providing evidence of convergence within the Canadian food movement. One interpretation of the results is that there are no ‘oppositional’ organizations in the sample, yet many organizations engaged in policy work, typically considered an ‘oppositional’ strategy. As such, the results support critiques of the assumption that initiatives can be neatly categorized (Allen, 2014; Mooney et al., 2014; Mount & Andrée, 2013). Convergence may be due to internal hybridity of many organizations, as previous research suggests that individual organizations encompass a diversity of goals and strategies and blur the lines between various organization ‘types’ (Mount & Andrée, 2013). The results contrast with conceptual frameworks that group organizations into ‘alternative’ or ‘oppositional’, ‘progressive’ or ‘radical’ (Allen et al., 2003; Holt-Giménez & Shattuck, 2011), and are commensurate with previous research investigating pragmatic initiatives that questions the clear distinction between alternative and oppositional initiatives in practice (Mooney et al., 2014). The sample’s convergence around food movement goals and strategies suggests that the Canadian context may influence the organizational operations. The evident convergence of the Canadian food movement may be due to systemic constraints of neoliberal policy, yet whether these constraints will ultimately limit the efficacy of the food movement or simply adjust the ways in which the movement operates is open to debate.

The descriptive statistics demonstrate a sample that supports previous theorisation of food movement trends towards localism, consumer choice, entrepreneurialism and self-help (Guthman, 2008a). Scholars agree that these four characteristics are commensurate with alternative, rather than oppositional, initiatives, but debate the extent to which alternative initiatives reinforce neoliberal rationalities (Andrée et al.,
2014; Guthman, 2008a). One way to interpret convergence in the food movement is through the increasing neoliberalisation of the movement (Guthman, 2008a). A second reading – a reading for difference (Harris, 2009) – of food movement visions, actions, and discourses, however, suggests convergence around points of success; areas where the food movement has increased operations due to the limitations of neoliberal policy but without defining their actions in relation to neoliberal rationalities. Following Guthman’s (2008a) framework and its critiques (Harris, 2009; Andrée et al., 2014), we discuss the survey results in terms of these four trends, considering both neoliberal rationalities and the politics of the possible.

4.3.6.1 Localism

The prevalence of local food discourse within the sample is consistent with the food movement’s local trend described by Guthman (2008a). Few local food organizations partnered with or lobbied provincial and federal governments to implement programs, or change policy or practice, supporting the notion that the emphasis on local food indicates a turn away from the political levels that traditionally govern food and agriculture policy. Yet a high proportion of the local food organizations in this study have engaged municipal governments, indicating that organizations have not given up on political change, and may instead be focusing their efforts on a political level more open to change. To date, the Canadian food movement has experienced little success impacting federal food policy (Mendes, 2008). Kneen (2011), a leader in Canada’s food movement, points out that while Food Secure Canada (a federal network of alternative food organizations and activists) aims to engage the federal government, it has had relatively little influence on federal policy, which has remained effectively unchanged since 1969. In 2016, the federal government included sustainable food in its sustainable development strategy, and a key focus is the development of a federal food policy (ECCC, 2016). During the election campaign, the current Liberal party promised a strong role for civil society in public consultations to develop a federal food policy (Food Secure Canada, 2015). While promising, thus far, federal government-driven initiatives to engage civil society in policy processes have been unsuccessful. For
instance, the Canadian Biotechnology Advisory Committee was established by the Government of Canada to address biotech policy through public consultation and expert advice, but was ultimately boycotted by civil society organizations (Abergel, 2012). Critics have suggested that its only function was to permit pre-existing policies to proceed unhindered, demonstrating the lack of meaningful public engagement in federal decision making surrounding the food system (Abergel, 2012). In an analysis of Canada’s Action Plan for Food Security (CAPFS), Koc and Bas (2012) found that organizations invited to consult did not find it truly consultative as they were given no opportunity to speak directly to policymakers, negotiate or engage in discussion over conflicting viewpoints. The authors argue that while the CAPFS process provided space for civil society voices in policymaking, it simultaneously demonstrates further neoliberalisation of the food system by hollowing out the welfare state, as the document emphasized unfunded civil society service delivery (Koc & Bas, 2012). Given the lack of progress at the federal level until 2015, the high engagement at the municipal level in this study may represent a turn away from processes of neoliberalisation that occur when attempting to engage the federal government, and a politics of hope at the municipal level.

The closer proximity of organizations to municipal governments may provide further opportunities for organizations to achieve political change at this level. Given the complex nature of the Canadian agrifood regulatory environment, political movements with specific targets may be more successful in achieving their political goals than the broad food movement has accomplished so far. In-depth knowledge of relevant regulatory bodies and relationships with key representatives from the appropriate departments facilitate civil society impact on policy change (MacRae et al., 2012b). In-depth knowledge and close relationships with policymakers may be more achievable at the municipal level than the provincial or federal levels.

The widespread prevalence of local food discourse may support collective action for systemic change. Local food is considered an ‘issues-specific’ frame focused on geographically small-scale economic exchange, as opposed to a ‘master frame’ that
brings together diverse interests and actors within the food movement (Schiff & Levkoe, 2014). Yet the popularity of local food in the Canadian food movement may support its utility as a collective action frame. While master frames may ultimately be better suited to collective action, issues specific frames can mobilize individual interest and action (Schiff & Levkoe, 2014).

Emphasizing the local allows organizations to create context-specific solutions to local challenges created by the global, conventional food system (Blay-Palmer et al., 2015). In addition, if the global food system creates common challenges at different localities, networks of local initiatives can share examples of successful community-based initiatives, leading to solidarity and collective action, and, ultimately, transformation of the food system (Blay-Palmer et al., 2015). The development of new food policy centered on the local in each of the four provinces (see OMAFRA, 2015; Authority of the Speaker of the House of Assembly Halifax, 2013; The Legislative Assembly of Alberta, 2015; Legislative Assembly of British Columbia, 2015) suggests that the prevalence of local food discourse may be opening doors for policy change across Canada.

Few local food organizations focused primarily on social justice, instead selecting viable farm income and food access as their primary focus, demonstrating the lack of oppositional social justice qualities at the local scale that is frequently presented in the local food literature (e.g. Born & Purcell, 2006; Hinrichs, 2003; Levkoe, 2011). The prevalence of viable farm income and food access as key foci indicates a strong emphasis on economic values and alternative (rather than oppositional) social justice, consistent with previous research (Allen, 2014). Yet widespread improvement of farmer incomes and food access through alternative initiatives help support more equitable distribution of wealth than the conventional food system allots, and as such challenges the notion that oppositional efforts via systemic critique are required for fundamental change. That is, alternative initiatives may appear minor, but can support fundamental change by scaling out across the food system (Mount, 2012) and emphasizing the transformative social justice aspects of such initiatives, namely wealth redistribution. While some aspects of the local food movement may reinforce neoliberalisation of the
food system, the prevalence of local food discourse may be considered an opportunity for the food movement to expand its transformative potential.

4.3.6.2 Consumer Choice

Consumer education was considered the most important activity by a majority of participants for nearly every activity type, providing empirical support for the increasing reliance on consumers for both transforming and regulating the food system as theorized by Guthman (2008a). Consistent with other case studies, the organizations surveyed here appear to accept the current structures of the food system and choose projects within, rather than opposed, to these structures (Allen et al., 2003). Consumer choice is perhaps the most common neoliberal rhetoric, as some argue it reflects a loss of faith in the state as a regulator, and reduces citizens to consumers and responsibility for food system change onto their ability (and knowledge) to make ‘good choices’ with their dollars (Guthman, 2008a; Levkoe, 2011). Consumer choice may encourage a neoliberal orientation among food movement organizations by providing more options for consumers without challenging the commodification of food (Allen et al., 2003). An additional challenge for consumer-choice activities is that ‘good choices’ are not affordable, and thus accessible, to all people.

Yet while the high acceptance of consumer choice as a tactic for developing a sustainable food system may intrinsically support and reinforce neoliberal logic, it also indicates that organizations are taking advantage of the tactics available to them under current neoliberal policy. Given the movement’s previous success in using consumer choice to prohibit Roundup Ready wheat in Canada (see Eaton, 2013), and Monsanto’s attempts to limit consumer choice by not labeling genetically modified products (see Monsanto, 2013), it is perhaps not surprising that the movement sees value in consumer choice activities consistent with researchers that recognize the power of everyday practice and call on consumers to recognize their ability to change the food system through consumption choices (Goodman et al., 2014).
Alternative food organizations may understand that consumer-oriented initiatives are vital to mobilizing communities around food issues (Fairbairn, 2012). For instance, previous research on a consumer-based program in Edmonton, Alberta demonstrated that educational initiatives can motivate consumers to move beyond their initial interest in niche markets, and engage in food culture events and policy councils (Desmarais & Wittman, 2014). Additionally, consumer choice initiatives may further support smaller movements for specific policy change through first supporting broad value change amongst Canadians that motivates and facilitates acceptance of political change amongst decision makers by demonstrating desire for change and creating a politics of the possible. Previous research has indicated that consumer choice activities are not end goals; rather, organizations use consumer choice activities as strategies for instigating systemic change through re-valuing social and environmental relationships via food (Andrée et al., 2014).

Results of this study indicate that while simply ‘promoting local markets’ was a common consumer education activity, more organizations engaged in educational activities that promote the value of food. Knowledge networks or coalitions were also common amongst the sampled organizations. These educational activities demonstrate strategies to add value beyond economics to food and use food as a means for collective action. As such, while many food organizations are engaged on the ‘consumer’ end of the food chain as opposed to the ‘producer’ end (Goodman & DuPuis, 2002; Fairbairn, 2012), these initiatives do not necessarily reduce citizens to consumers (Levkoe, 2011). The results provide evidence that consumer-based initiatives cannot be reduced to consumer choice; rather, such initiatives include efforts to educate Canadians on the value of food, as well as promote a sense of community based around food (e.g. community kitchens).

While viewing consumer choice solely as a neoliberal tendency provides a narrow view of their potential, putting too much stock into consumer choice may limit the transformative potential of the food movement if the movement ignores the need for policy change. By emphasizing the potential collective impact of the food movement,
this analysis demonstrates that there is space for both consumer-oriented and policy-oriented initiatives in the food movement. Indeed, many scholars argue that at the very least, consumer-choice initiatives must occur in tandem with state-targeted initiatives (e.g. Holt-Giménez & Shattuck, 2011; Levkoe, 2011; Fairbairn, 2012). Behaviour and value change may be a vital prerequisite to such activism to ensure that the public will support advocacy for fundamental change in the food system. Ethical consumerism is important for creating behaviour and value change in much of the population, however individual and collective action cannot end there and must use popular support of alternative food initiatives as a catalyst for state-targeted activism to create long-term change.

4.3.6.3 Entrepreneurialism

The emphasis on consumer choice necessitates entrepreneurial activities at the community level to provide choices, but may also distract from (Levkoe, 2011), or extend to, political advocacy (Guthman, 2008b). Research on alternative food initiatives in California has shown that organizations recognize the importance of political initiatives in achieving sustainable food systems yet engage more in entrepreneurial activities such as direct marketing through farmers’ markets or community-supported agriculture (Allen et al., 2003). Even when organizations engage in political initiatives, they may focus more on entrepreneurial mechanisms such as incentives, rather than strict regulations, which are generally considered more transformative than incentives (Guthman, 2008b).

In this study, entrepreneurial activities (e.g. farmers’ markets and other distribution services) and support for entrepreneurial policies (e.g. local food procurement; incentives-based policy) were common across the four provinces surveyed. Yet organizations generally indicated that regulations-based policies were more important than incentives, although on average less likely. Rather than indicating a turn away from the state as Guthman (2008a) suggests, these results indicate that while organizations have transformative goals, they are simultaneously working on activities and policies
where they may be more likely to achieve success. Additionally, while organizations are more likely to partner with governments than to lobby governments, they nonetheless lobby governments, indicating that organizations may use their relationships with government departments to have their voices heard (Andrée et al., 2014). Additionally, these partnerships provide hope that over time, public institutions may value and integrate food movement priorities into public policy (Allen et al., 2003).

In general, environmental policies were viewed as both more important and more likely than social justice policies, and social justice policy goals tended towards alternatives (e.g. support for new- and small-scale farmers) rather than transformative policies (e.g. resource equity, gender equity and farmworker rights). These findings are consistent with Allen’s (2014) argument that the food movement is generally more comfortable with providing alternatives to, and modifying, the conventional food system than transforming it, particularly in terms of social justice, and Friedmann’s (2005) analysis that the food system may be moving towards green capitalism with little in place to support a more equitable food system.

Yet this analysis is incomplete without recognizing the ways in which such initiatives and policies challenge the conventional, productionist food system by bringing social and environmental values back into production (Donald, 2010; Cameron & Wright, 2014), support collective action by appealing to the general public (Stevenson et al., 2007) and appeal to policymakers due the minor changes that such policies would instigate (Hassanein, 2003; Mount & Andrée, 2013). Distinguishing the ways in which alternatives are both recognizably different from dominant market structures and familiar to the general public is important because “we must be ready with strategies for confronting what forcefully pushes back against the discursive imaginings and practical enactments we associate with building a different economy” or political system (Gibson-Graham, 2006). That is, building a different food system requires alternative strategies for replacing the conventional food system as much as it does a willingness to oppose and transform the food system. There is a need for pragmatic everyday practice to supplement the broader movements for political change, and entrepreneurial initiatives.
may provide these practices (Marsden & Franklin, 2013). The widespread prevalence of on-the-ground entrepreneurial activities such as farmers’ markets demonstrates the “materially effective” alternative economy needed to demonstrate possibilities for a different type of food system (Goodman et al., 2014). The diversity of economies and growing emphasis on the social economy, including non-profits, cooperatives and community initiatives that aim to reestablish trust between producers and consumers, is a growing trend within food movement activism and scholarship (Cameron & Wright, 2014), one that represents producers and local businesses taking some control over the food system back from transnational corporations. While such initiatives may not reflect the oppositional politics that scholars advocate, they nonetheless represent a politics of the possible (Goodman et al., 2014).

4.3.6.4 Self-Help

A final neoliberal trend that characterizes the food movement is the emphasis on personal responsibility to create change within the food system, as demonstrated by the emphasis on community gardens and farm-to-school programs (Guthman, 2008a). Self-improvement reinforces neoliberal ideology by implicitly acknowledging the lack of state responsibility over public welfare through social programming (Guthman, 2008b) and further contributes to individualization within the food movement, superseding collective action (Dolhinow, 2005). Combined with the tactic of consumer choice, self-reliance alternatives further exacerbates existing social inequalities by implying that low-income people must grow their own fresh food while everyone else can purchase theirs (Donald, 2010).

Programs (e.g. community gardens) and policies (e.g. student nutrition) promoted as self-improvement by scholars (e.g. Guthman, 2008a) were common across the four provinces, yet it is notable that student nutrition programs were the least common consumer awareness activities. Details on the motivations behind the Canadian food movement’s 2015 campaign for a student nutrition program reveal the neoliberal rhetoric around healthy eating, healthy bodies and improved learning that Guthman
(2008b) asserts, but also a call for collective action for institutional support (in the form of one billion dollars of federal investment over five years) for universal access to healthy food (see Members and Collaborators of the Coalition for Healthy School Food, 2015). Collective action, institutional support and universal access are all themes more in line with a ‘politics of the possible’ than neoliberal arguments for individual responsibility. While the popularity of these initiatives supports Guthman’s (2008a) analysis on neoliberal tendencies within the food movement, there is also a tendency within these initiatives towards community building and political advocacy (Andrée et al., 2014). The Members and Collaborators of the Coalition for Healthy School Food (2015) justify their political ‘asks’ by seeking to build on existing programs. This justification represents a politics of the possible by using existing on-the-ground community-based activities to demonstrate what is possible at the policy level (McInnes & Mount, 2017). Further, these organizations are calling on the federal government to invest, indicating that the food movement has not focused on the individual because they have lost faith in the federal government, but that successful local initiatives are used as a strategy to achieve their visions of a vastly different food system (Andrée et al., 2014).

Even so-called ‘individual’ initiatives eventually become collective as they scale up in the number of people reached and scale out across space (Goodman et al., 2014). The widening reach of various alternative initiatives, even at the individual level, serves “to produce a discursive and material shift of tectonic proportions (Gibson-Graham & Cameron, 2007). The food system is a social construct built through everyday practice, and as such everyday practice via individual action is necessary to rebuild the food system (Gibson-Graham, 2006).

4.3.7 Conclusion

In this paper, we conduct a systematic assessment of the extent of convergence or divergence in the Canadian food movement, and provide evidence for convergence around organizational discourse, activities and visions of sustainable food systems. Using cluster analysis and descriptive statistics, we examined discourse, activities and
visions of a sustainable food system, and demonstrate that trends of localism, consumer choice, entrepreneurialism and self-help are prevalent overall and within each of the four provinces surveyed. Localism and consumer-based activities are particularly prominent, with a majority of survey respondents describing their organizations as local, engaging in consumer education activities, and touting the importance of consumer education activities. Yet the results provide empirical evidence that consumer education cannot be reduced to consumer choice. The prevalence of these four trends demonstrates convergence around alternatives, rather than oppositional initiatives, in the food movement across the four Canadian provinces examined. The consistency between the four provinces is notable, and indicates that the neoliberal context provided by federal policy may be a key factor in determining the types of initiatives that are possible for the food movement. Future research investigating changes in food movement strategies under different federal policies would provide valuable insight into the importance of the federal political context. While the four provinces are geographically diverse, territories in Northern Canada were not included and may provide important insights given their unique population and geography relative to the rest of Canada.

The quantitative methods used in this project provide a unique perspective to a body of literature that currently relies heavily on individual case studies (Marsden & Franklin, 2013). Even when examining broad trends, much of the food movement literature has a tendency towards conceptual and qualitative analysis without quantifying the extent to which these trends prevail within the food movement (e.g. Andrée et al., 2014; Constance et al., 2014b; Guthman, 2008a). There are limitations to quantitative methods: while knowing that a particular number of organizations are working on projects that are (arguably) more or less neoliberal does not necessarily indicate that the movement as whole is more or less neoliberal. For instance, while it is worth noting that the number of organizations that characterize themselves as ‘food sovereignty’ organizations is small, this number does not reflect the impact that the discourse may have on the Canadian food movement if used by few highly influential organizations.
Nonetheless, the prevalence of various forms of neoliberal discourse and governance mechanisms may be useful for arguing whether there are indeed ‘trends’ within the food movement, and provides a new method of insight on the potential collective impact of the food movement.

If convergence is required for a transformative food movement, the Canadian food movement may have the potential to change the food system. Yet scholars caution that convergence around alternatives, rather than opposition to the conventional food system model may weaken the transformative potential of the movement and further reinforce neoliberalism within the food system (Rivera-Ferre et al., 2014). This convergence around alternatives may represent neoliberalisation, but also demonstrates a politics of the possible. Interpreting the survey results through the four neoliberal tendencies presented by Guthman (2008a) provides empirical support for Guthman’s theorization but also paints a more complex picture, as outlined by other scholars (e.g. Harris, 2009; Andrée et al., 2014; Gibson-Graham & Cameron, 2007). Reading for difference interprets unified goals of the food movement as a demonstration of the capacity for strong alliances across Canada, and considers convergence around initiatives that are most successful given the neoliberal context that organizations are working in. That is, organizations working under neoliberal policy may be taking strategic advantage of activities with demonstrated success in this context. In addition, the widespread impact of the organizations surveyed here demonstrates possibilities for how the food system might look in the future, providing pragmatic examples of how to restructure the food system. Further, these initiatives provide the means to engage large numbers of Canadians, who engage with the food system primarily as consumers, allowing Canadians to engage in food systems change every day in ways similar to their daily routines, which may be more appealing, and thus more likely to have widespread impact, than advocacy (Stevenson et al., 2007). To work outside the Canadian policy context may require civil disobedience, possibly alienating many Canadians from engaging in food systems change (Fairbairn, 2012).
Gibson-Graham (2006) note that while theorizing (around oppositional or not; transformative or not; or neoliberal or not) is useful in framing existing tendencies within the movement, and envisioning possibilities for food systems change (Allen, 2014), when initiatives - or the food movement as a whole - are generalized as reinforcing the conventional food system, such characterizations may serve to weaken broad public support for these initiatives. Scholarly emphasis on neoliberal tendencies underestimates the potential of the initiatives pursued by a diversity of nonprofits, cooperatives, small businesses and community groups across Canada. In particular, the results indicate that convergence around localism, consumer-based activities, entrepreneurialism and self-help cannot be reduced to neoliberal logic. The emphasis on ‘local’ discourse may represent a turn to the municipal political sphere where change may be perceived as more accessible, and provides an opportunity for a collective discourse to unify the food movement. Convergence around consumer-based, rather than producer-based, action, is not limited to consumer choice. Instead, consumer-based initiatives are providing spaces for Canadians to create communities based around food, offering opportunities for Canadians to enter food-based activism, and demonstrating possibilities for a new food system in Canada. The turn to entrepreneurialism provides producers and local businesses an opportunity to push back against corporate control of the food system. In terms of entrepreneurial policy, results indicate that the food movement supports regulations over incentives, but may be focusing their efforts on policy initiatives less alienating to governments, such as procurement. Finally, self-help programs tend to be based around communities (e.g. community gardens) and collective action, as groups across Canada are uniting to ask the federal government to institutionalize support for universal access to healthy food via student nutrition programs.

Although the achievements of individual alternative initiatives may be partial, their collective impact is widespread (Gibson-Graham, 2006). Given that the food movement has so far been more successful in providing alternatives than enacting the political change envisioned by early activists (Goodman et al., 2014), some scholars are calling
for re-energizing the 'radical left' by rethinking alternatives as possibilities for restructuring the world (Gibson-Graham & Cameron, 2007). Such a politics of the possible provides a means for cracking open spaces of possibility within the current food system by examining alternatives as case studies that help us envision what a different type of food system might look like, and demonstrate widespread support for this different, more sustainable food system (Andrée et al., 2014; Gibson-Graham, 2006). Reducing alternative initiatives to neoliberal logic ultimately underestimates the potential of the alternative food movement.

4.3.8 References


parties-are-favour-national-food-policy


5 Bridging the Disconnect: Transitioning to Sustainable Food Policy through Practice

5.1 Preface to the Manuscript

The previous two chapters demonstrate that formal Canadian food policy making channels are not open for meaningful food movement involvement, and food movement organizations have responded by converging around alternatives while maintaining oppositional goals. In this chapter, I aim to bridge the disconnect between these two bodies of literature to examine the ways in which engagement in alternative initiatives may open the door for policy change. In Chapter 4, I argue that food movement organizations in Canada demonstrate a politics of the possible. In this chapter, I extend this analysis by examining a case study (interview guides in Appendix VI) to consider the question: if food movement organizations are meant to ‘work within the cracks’ of the neoliberal food system in order to support a transition to a more sustainable food system, as I argue throughout this dissertation, what does that look like in practice?

5.2 Publication details:

McInnes, A. (Submitted to Local Environment). Filling the cracks: A micropolitical analysis of food movement strategies in the neoliberal era.

5.3 Manuscript Four

5.3.1 Abstract

Despite strong theoretical contributions on the politics of the possible, a framework that evaluates alternative food movements as operating within the cracks of neoliberalism, little attention has been paid to how, specifically, an organization can “operate within the neoliberal cracks” to affect food systems change. Using micropolitical analysis to examine a case study, Pollinator Partnership Canada (P2C), I analyse how a small organization has successfully impacted federal policy and industry practice, and provide strategic insight to those working on the ground. Through staff and partner interviews, and review of government and organizational documents, I determined four key,
interrelated, elements of success, including Single-Issue Expertise, Diverse and Collaborative Partnerships, Opportunities-Based Action, and use of the Dominant Discourse. I argue that these four strategies represent how organizations can serve to work within the neoliberal cracks and discuss the ways in which these strategies can address challenges in the global environmental politics of food at a local scale, providing both practical and theoretical contributions to the literature.

Keywords: politics of the possible; micropolitics; alternative food movement; neoliberalism; global environmental politics of food

5.3.2 Introduction

What does it look like to work within, and break open, the cracks of the neoliberal food system? In response to scholarly discussions on the neoliberal tendencies of alternative food movements and associated inability to influence broad systemic change, namely through policy-based action (e.g. Allen, FitzSimmons, Goodman, & Warner, 2003; Guthman, 2008b), a growing body of scholarship examines alternative food movements under a politics of the possible framework, which views food movements as constrained by neoliberal policy, yet operating within the cracks of neoliberalism to influence change (e.g. Andrée, Ballamingie, & Sinclair-Waters, 2014; Gibson-Graham & Cameron, 2007; McInnes, Fraser, Gedalof, & Silver, 2017). Neoliberal readings of the food movement critique the strong emphasis on “alternative” initiatives (e.g. niche markets such as Organics labelling that allow consumers to opt out of the dominant system), rather than “oppositional” initiatives (e.g. direct opposition and critique of the dominant system through advocacy) (Allen et al., 2003), and argue that alternative initiatives risk reinforcing the dominant system through a “neoliberal turn” in which food movement actors utilize neoliberal discourse and governance mechanisms (Guthman, 2008a). Critiques of this neoliberal reading of alternative food initiatives focus on the ways in which such a reading reduces possibilities for change (Harris, 2009) and undermines their potential (Cameron & Wright, 2014). As such, previous research examining the food movement through a politics of the possible lens highlights the necessity of not
being “overly prescriptive about what a “transformative” politics of food should look like” (Andrée et al., 2014, p. 4, emphasis in original) and instead focuses on “reading for difference” (Harris, 2009, p. 55) and “making visible” (Cameron & Wright, 2014) initiatives that demonstrate capacity for transformative food system change. While this sidesteps critiques of neoliberal readings, it does little to inform practitioners of what they could do to influence broader systemic change. In this paper, I examine a case study, Pollinator Partnership Canada (P2C), to consider this question.

Understanding what food movement organizations can do to influence systemic change is particularly important in the context of an “advocacy chill” initiated in 2012 by a series of audits carried out by the Canada Revenue Agency to revoke charitable status from charities spending more than 10% of their resources on political work (Beeby, 2018). Though this has recently been cancelled, charities still face advocacy and lobbying restrictions not shared by corporations (Gray, 2018). In this context, charities are understandably hesitant to carry out political work that might put their service delivery programs at risk. Further, if scholars are advocating political action as the only means to change the food system (Rosset, 2008), and yet arguing that existing policy channels prohibit meaningful public consultation (Abergel, 2012), practitioners may begin to wonder whether there is any potential to support a transition to a sustainable food system through their work. If food movement researchers seek to support a growing food movement and enhance their transformative potential (Friedland, 2010), we must move beyond analysing the theoretical impacts of the food movement’s work to provide insight on what actions organizations can take to support a transition to a sustainable food system.

In this paper, I conduct micropolitical analysis of P2C to consider what, precisely, organizations can do to work within the cracks of neoliberalism and ultimately influence systemic change through feasible and strategic action. Through interviews with P2C staff and partners, and document analysis, I determined four key success factors that help P2C achieve their goals. I argue that these four success factors outline how organizations serve to work within the cracks of the neoliberal food system and discuss
the ways in which these factors can address challenges in the global environmental politics of food at a local scale.

5.3.3 Methodological Approach

In this paper, I examine a single case study to gain “concrete and practical” understanding of the context and practices of a non-profit organization that has had a wide range of successes in reaching their goals (Baxter, 2010, p. 95). Though Pollinator Partnership works in both Canada and the US, this study focuses on their work in Canada to best consider the relationship between their micropolitics and the wider context that they work in (Hoyle, 1999). In order to support pollinator health, P2C engages in a wide variety of initiatives. In 2017, these included the Bee Friendly Farming certification, Agriculture and Agrifood Canada (AAFC) Bee Health Round Table (BHRT) projects (a gap analysis for honey bee forage, the development of a Canadian honey bee forage guide, and a review of honey bee and native bee risk potential in crops and ornamentals for the Pest Management Regulatory Agency (PMRA)), an Environment and Climate Change Canada (ECCC) review of monarch seed availability and capacity gaps, a review of non-apis risk in crop and ornamental production in Canada and development of a research database, field research relating to cover crops and the support they provide bees, and outreach and partner engagement. Outreach projects included the development of a Citizen Scientist Pollinator Monitoring App with Border Free Bees, leading the Island Pollinator Initiative, a local collaborative action network funded by multiple local organizations on Vancouver Island, workshops for land managers and farmers on Vancouver Island, two monarch conservation webinars for agricultural and corridor land managers, 17 ecoregional planting guides and three pollinator conservation informational brochures for the general public, three technical guides for land managers, and other outreach activities in British Columbia and Ontario.

P2C’s funding includes grants and contracts, and funders include ECCC, OMAFRA, Growing Forward 2, PMRA, Commission for Environmental Cooperation, Earth Rangers, the Stanley Smith Horticultural Trust, Van City Foundation, Island Pollinator
Initiative, and Fairmont Hotels. Their account holdings at the end of 2017 amounted to just over $112,000. They have three permanent or long-term contract staff and typically have one to two interns on staff. They do not rely on volunteer labour beyond special events.

P2C was chosen due to their unique position as the only environmental non-profit organization sitting on a federal value chain roundtable (BHRT), a key avenue for influencing agricultural policy at the federal level. In many ways, this organization is typical of a “food movement organization” in that they have funding challenges and few staff (Mount et al., 2013), work on a range of activities (McInnes et al., 2017), and though they do not necessarily view their work as part of a formalized food movement, their values are aligned with the food movement, particularly as they relate to farmer and consumer practices. Further, they work frequently with food and agriculture organizations including AAFC and Health Canada, the pesticide industry, and food-based non-profits within the Island Pollinator Initiative. As such, the case study’s unique position and typical organizational profile make Pollinator Partnership Canada an analytically robust case study in that other food movement organizations may apply the findings presented here (Baxter, 2010). Following Gibson-Graham (2006), I hope that the findings inspire, rather than restrain, food movement practitioners. In addition, grounding the case study in the analytical framework outlined below provides further insight into theoretical explanations of food systems change (Baxter, 2010).

5.3.4 Analytical Framework: Power, Strategy, and the Micropolitics of Food Systems Change

I examine the case study through an analytical lens incorporating perspectives on power from sustainability transitions theory (Avelino & Rotmans, 2009) and food systems research (Clapp, 2012), as well as perspectives on food movement strategies from food democracy (Hassanein, 2003) and the politics of the possible (Gibson-Graham, 2006). Finally, I draw on micropolitical analysis (Molden, Abrams, Davis, & Moseley, 2017) to examine the case study.
Sustainability transitions theory considers systems change as the interaction between three levels: the regime (the rules, practices and structures of the dominant system), the landscape (the broad context of the regime, including societal values, the environment and economic trends) and niche (new small systems that provide innovations and alternatives to the regime, such as research and development laboratories and niche markets) (Geels, 2011). Change occurs when the landscape level provides pressure on the regime to change, while the niche grows in popularity, causing the regime to start “breaking down” until the niche has replaced the regime (Avelino & Rotmans, 2009). Central to this process is the role of power, as regime actors have it, and the niche level does not (at least pre-transition), and the landscape typically supports the regime (at least pre-transition) but can also support initiatives at the niche level (Avelino, Grin, Pel, & Jhagrow, 2016). How then, might a niche level actor, such as an individual or organization involved in the food movement, influence change in the food system? To answer this question, it is useful to consider the ways in which the dominant actors in the regime exercise power.

The strong and growing power of industry in the food system is well-documented in food scholarship (Winson, 1994). Researchers have noted that in practice, transition attempts have tended to focus on the needs and opportunities of elite actors (typically industry) within the regime level (Lawhon & Murphy, 2011). Studies of processes of policymaking in the Canadian food system have largely confirmed this focus on industry as key actors in improving environmental sustainability of farms and food security (see, for example, Abergel, 2012; Koc & Bas, 2012). Clapp (2012) provides clarity on forms of industry power in the food system that supports understanding of how Pollinator Partnership Canada has been able to gain power in a food system dominated by industry players. Though Clapp (2012) notes that the large size of corporations due to concentration and integration that allows them to dominate price setting is a key source of power, “what matters most is their ability to shape the rules under which they operate” (p. 249). Private standard setting is one such avenue: though many food safety qualities have traditionally been the domain of federal regulation, corporations have
increasingly developed their own voluntary standards that tend to label existing practices rather than improve them, and do not allow for third party verification (Clapp, 2012). A second avenue is through influencing regulatory processes, either indirectly through lobbying or directly through the revolving door, in which individuals from industry and lobby groups are appointed to regulatory positions in government (Clapp, 2012). Finally, industry plays a key role in shaping public perceptions of popular issues through participation in government hearings, press releases, advertisements and issuing reports (Clapp, 2012).

The strength of industry power brings a key tension to food systems research: food democracy scholars maintain that in this context, a pragmatic perspective on food systems change is needed, as incremental change is more feasible than “transformative” change (Hassanein, 2003) while others argue that clear critiques of the industrial food system are required, and the food movement must engage more in “oppositional” rather than “alternative” tactics (Allen et al., 2003), and support broad systemic change through food sovereignty (Wittman, Desmarais, & Wiebe, 2011). So far, the food movement has been much more successful in gaining support for alternatives and growing the niche markets than achieving broad systemic change (Goodman, DuPuis, & Goodman, 2014). Further, others have argued that the growing interest in niche markets demonstrates increasing value change and represents an opportunity to capture the interest of consumers in local foods, and harness it for broader value change and interest in social and environmental justice (Beckie, Kennedy, & Wittman, 2012). Using the sustainability transitions framework, these theorizations are closely linked to the interactions between the niche and landscape levels that can ultimately break down and replace the regime.

The politics of the possible can provide further insight on this process of breaking down the regime (Gibson-Graham, 2006). A number of food movement scholars (e.g. Andrée et al., 2014; McInnes et al., 2017) have begun to use the politics of the possible to understand the ways in which alternative food initiatives represent a meaningful, if partial, departure from the dominant system: work that recognizes the structural limits
imposed on alternatives, but also sees the spaces of possibility in the dominant system, fills those cracks, and provides a vision for what a future food system could look like (Gibson-Graham & Cameron, 2007). Yet this remains a key tension in food movement scholarship: what some interpret as the politics of the possible, others examine as the ways in which the food movement is supporting the dominant food system through neoliberalization of their activities (Guthman, 2008a). Though food movement researchers have thus far used the politics of the possible as a counter-argument to the neoliberalization perspective (Andrée et al., 2014), Gibson-Graham (2006) provide a vision for organizations to achieve change by “filling the cracks” in the neoliberal food system. They state that a key characteristic of organizations filling the cracks is a “freedom to act” which supports the ability to do the work needed to reach their goals, even if it seems partial or at risk of co-optation. Four key features include reflexive practices to ensure the work is not co-opted by powerful institutions; acknowledgement of the role of local transformations that, expanded across space, represent broader change; recognition of the negotiability of power, which can be harnessed; and expanding a vision of transformation as on-going rather than radical and instantaneous (Gibson-Graham, 2006).

These analytical perspectives draw attention to key tensions around practical and transformative action (Hassanein, 2003), and whether certain strategies represent neoliberalization of the food movement (Guthman, 2008a) or working within, and breaking open, the cracks of neoliberal systems (Andrée et al., 2014). Further, although broad conceptualizations of change including alternative, oppositional, food democracy, food sovereignty, and so on, provide conceptual clout in the scholarly literature, research demonstrates that practitioners may be unclear on how to implement these concepts in their everyday work (Fairbairn, 2012). These scholarly tensions and this gap in utilizing these concepts in practice suggest a need to go beyond discussing broad-scope strategies (alternative, oppositional, food democracy, food sovereignty, politics of the possible, neoliberalization of the food movement) to examine the micropolitics of organizations that are reaching their goals and supporting broad systems change.
In micropolitical analysis, researchers focus on individual behaviour and relationships to articulate which conditions and practices support meaningful outcomes within an organization (Su, 2018). A micropolitical analysis considers both the structural opportunities and restraints, and the agency of individuals, while focusing on particular actions; “the everyday ‘nitty-gritty’ interactions that make up larger projects” (p. 62) and that underlie how an organization’s vision for change may unfold (Molden et al., 2017).

In the findings that follow, I focus on the micropolitics of non-profit techniques for impacting food systems change, paying particular to the internal structure and qualities of P2C, as well as strategies for reaching their goals. That is, I seek to answer the questions (1) what does this organization do? And (2) how does this support broad food systems change?

5.3.5 Methods

The results presented in this paper are based on through semi-structured, in-depth interviews with the three long-term P2C staff (Victoria Wojcik, Executive Director; Kathleen Law, Canada Outreach Program Manager; Lora Morandin, Western Canada Program Manager), semi-structured interviews with four of their partners, including representation from government (one partner), industry (two partners) and non-profit organizations (one partner), as well as document review (P2C website; P2C publications; P2C’s 2016 Financial Statement; P2C Annual Board Reports from 2015-2017; BHRT website, meeting minutes and publications). Multiple interviews were conducted with the Executive Director between August-November 2017 to develop the researcher-participant relationship and ensure the case study’s salience to food movement strategies (Creswell, 2007). Since micropolitical analysis focuses on the internal dynamics and actions of an organization - the strategies that they use to reach their goals – the findings presented here focus on the staff interviews (Hoyle, 1999). Partner interviews and document review was used to corroborate the staff interviews, supporting triangulation (Creswell, 2007). Interviews were transcribed and read through for themes based on the analytical framework outlined in the previous section. Member-checking was used following analysis for participants to judge the accuracy of quotes.
and credibility of the interpretation (Creswell, 2007). These validation strategies (prolonged engagement, triangulation, and member-checking) support the accuracy of the findings presented in the next section (Creswell, 2007).

5.3.6 Findings: Everyday Work that “Fills the Cracks” in the Neoliberal Food System

The findings presented here outline key strategies used by P2C in their everyday work that support their potential to transform the food system. Interviews and document analysis highlighted four key strategies that were instrumental for the organization’s successes, including single-issue expertise, diverse and collaborative partnerships, opportunities-based action, and use of the dominant discourse. Single-issue expertise, diverse and collaborative partnerships, and opportunities-based action were repeatedly discussed and explained by the staff and partners throughout their interviews. A fourth broad category, science-based discourse, was evident in the ways that each interviewee discussed their projects and partnerships. These four, interrelated strategies are ways to “fill the cracks” in the neoliberal food system and support a transition to a sustainable food system. In the sections that follow, I describe each strategy and outline how it demonstrates a politics of the possible through the key features outlined in the analytical framework (freedom to act; reflexivity; role of local transformations; negotiability of power; transformation as on-going) (Gibson-Graham, 2006).

5.3.6.1 Single-Issue Expertise

P2C focuses on protecting pollinator health, largely through pollinator habitat. In contrast to previous research arguing that a full-systems focus is necessary for transforming the food system (Levkoe, 2011), P2C staff and partners outlined P2C’s single issue focus as a key success factor. Given the complexity of food systems challenges, particularly with the disjointed nature of numerous public departments working on food issues, staff at P2C have found greater success in focusing their initiatives, as Wojcik outlines: “We always try to link our projects to as many partners as
we can, and build networks, taking a perspective that everything is interconnected and everyone can work on it, but again understanding that we’ve had a lot more success when we’ve focused on compartmentalized issues that can then be solved really well and then use that template to do another issues-based project”. This single issue focus has allowed the staff to develop the knowledge and expertise necessary to work within a complex system, for example by gaining in-depth understanding of the challenges and solutions, but also to build a reputation appealing to industry and government partners in particular, and develop relationships with key individuals at a policy level. All of the interviewed partners stated that they work with P2C specifically because of their long history of focussing on pollinators. In addition, their expertise allows them to quickly take advantage of opportunities with short deadlines, for example by already having the background information needed for grant applications. Though the complexity of the political system was outlined as a key challenge for P2C staff, by focusing on a single issue, they have fewer potential government departments to work with on policy issues than a group with a full food systems focus; this is a key advantage in a food policy context governed by a large number of diverse, varied and unconnected statutes and agencies at the federal and provincial levels (MacRae, 2011).

The staff view transformation as on going rather than radical, by viewing small-scale projects as templates for further work. This work demonstrates how local transformations contribute to broader change, as Morandin states “we’re identifying places that can potentially change things and create more conservation, so we’re strategic about our projects and I think that’s what makes them valuable”. Though working on local initiatives, they cooperate with their sister organization in the US, and in some cases link with projects across borders, for example. Despite focusing on pollinators, the staff maintain a broad systems perspective, as Law demonstrates: “my specialization is pollinator conservation but I came from a bigger picture way of thinking . . . using pollinators as sort of a foot in the door. It’s one way of looking at it and it’s an interesting way, from an ecological perspective, because you can use pollinators as a proxy for ecosystem health. So they can kind of serve as a canary in the coalmine. But
they also play a very specific functional, ecological role, which is pollination”. In addition, P2C staff work to integrate a broad systems focus through their partnerships, as discussed in the next section.

5.3.6.2 Diverse and Collaborative Partnerships

P2C maintains diversity in their partnerships, maintaining relationships with government, industry, non-profits, and conducting outreach with the general public. They maintain a freedom to act, collaborating with and accepting funding from institutions with different and conflicting goals in order to help redirect power-via-finances and move forward on their goals (Gibson-Graham, 2006). Viewing the specific issue as requiring full systems change, they also believe that everyone needs to take action: “anybody who has a stake in pollinator conservation, we will try to bring together, because we feel that solutions involve all stakeholders. So again: industry, government, research, non-profit organizations, all should be involved” (Morandin). Though they work with partners with similar goals on outreach activities and pooling resources, their partnerships are diverse in that they will work with groups with very different goals to either change practices or add a conservation component to existing programs.

The staff at P2C focus much of their day-to-day work on building relationships for specific projects, but also maintaining relationships between projects “because we’re talking about changing systems, it needs to be in the context of a long-term conversation [and] a larger network of people coming together and learning to work together . . . for the change to be sustainable” (Law). They work iteratively and collaboratively for three purposes. First, it allows them to take advantage of opportunities and slot their goals into existing programs by “engaging with a variety of stakeholders on issues that are important to them and seeing how we can integrate pollinator considerations into that” (Law), similar to strategies used by successful food policy councils (MacRae & Donahue, 2013). Second, P2C staff stated that an iterative process allows them to gain in-depth understanding of the system and how it can feasibly be changed in the short term, taking a food democracy approach (Hassanein,
2003). Third, P2C staff and partners felt that the collaborative model allowed everyone to reach their goals and maintain a positive relationship, supporting on-going transformation. As Wojcik notes, even in working with groups that have very different interests: “we definitely do like to choose partners that have similar goals or are on board with us, but I’ll say that we don’t shy away from partners that have differing views if the ultimate goal is to get a behaviour change instituted . . . we’re very happy to partner and work with agrochemical companies, but always retaining our message about being leery of and not supportive of prophylactic use and really shifting towards an integrated pest management model (when you’re making the choice if you do or do not use a pesticide, based on monitoring, tolerance, and economic thresholds), and we’re very happy to do that because you’re still slowly but surely shifting behaviours”.

One challenge of working closely with industry is the risk that projects will be co-opted. For instance, Jaffee and Howard (2009) have demonstrated that corporate involvement in Organics and Fair Trade certification programs allowed firms to maintain existing production and retailing practices, and further capture market capital, while weakening standards. The staff at P2C demonstrated reflexivity in maintaining their integrity despite making compromises: “One big challenge is, if you have very different goals, you’re going to end up with a compromise at some level. So on our end, that’s going to mean that even though we want a certain outcome, it might not be likely to get the full scope of that outcome, however if we’re willing to accept an incremental approach to change, and a small win, that’s ok. That is the model we’ve taken so far. We have not yet decided that it’s an all-or-nothing” (Wojcik). The staff also demonstrated awareness of the negotiability of power through these partnerships: “our policy [is] to be the big tent and to work with all stakeholders, which is somewhat unique in the non-profit world. So that can have pros and cons but I think overall it’s been a real plus for our organization and it’s really allowed us to be at those [policy] tables that often non-profits are not invited to” (Morandin). That is, they have renegotiated a source of power within these regulatory processes that is normally reserved for industry (Clapp, 2012). Though staff and partner interviews indicated that these corporate partnerships have caused strained
relationships with some non-profit organizations, they have actually supported others. An interview with a staff member of an environmental non-profit known for its hard stance against corporate practices listed P2C’s diverse partnerships as a strong benefit of working with P2C, both because it allowed the non-profit access to government funding that their mandate prohibits, and because P2C opened doors for this environmental non-profit to sit at policy tables that they would not normally be invited to. By seeking collaboration with a range of partners and supporting an activist group in this way, P2C has supported further renegotiation power in the food system. P2C staff noted that these partnerships also allow them to influence a wider audience with their message: “in agriculture, there’s a lot of industry that does have a very influential role in how they might be impacting the decisions that farmers make . . . they often are the most trusted source for information, so we really do need them on board and working in partnership with them” (Wojcik). By working with industry, P2C has carved out some industry power in terms of influence in both agricultural policy and practice. P2C has also renegotiated power on a financial level. For instance, one of their projects is funded by the federal government but requires matching funds from the private sector, so the staff aim to the leverage corporate funding to support projects with non-profit organizations with limited funds.

### 5.3.6.3 Opportunities-Based Action

With a specific focus on pollinators, P2C may be better able to keep abreast of funding opportunities and work quickly to take advantage of public pressure in this area, as compared to organizations attempting to maintain awareness of a wide variety of food-systems opportunities. In addition, having built a strong reputation for their expertise on pollinators, P2C partners frequently mentioned that they regularly approach P2C with opportunities to work on pollinator issues as they come up, and appreciate their ability to quickly write up grant proposals. With a depth of knowledge at their fingertips, the staff are able to act quickly as opportunities arise, while keeping their broad goals in mind: “we work project-to-project so might have a long-term vision of where to go but get there by working on a project basis so right now I’m working a lot on Monarch
conservation because the species was recently listed [as threatened] and so [there have been] lots of opportunities to work on general pollinator habitat through Monarchs” (Law). A second sudden opportunity that came up in staff and industry partner interviews was the release of a government report stating that neonicotinoid-treated corn and soy seeds impact pollinator health (Health Canada, 2014), which led to P2C’s invitation to join the BHRT. According to one member interviewed, P2C was chosen for their expertise on pollinators and allowed the roundtable to expand their thinking from managed honeybees to broader conservation issues. This is a striking success for a non-profit, as previously roundtables focused primarily on commodity agriculture, and were now opened up to discussions around environmental concerns and biodiversity. P2C’s success on local projects created an opportunity for them to engage in this work on a broader, policy level.

One challenge in terms of opportunities-based action is that much of the work is project-to-project, to maintain a politics of the possible, they must be reflexive and keep their goals around broad systems change in mind while working on single projects. As Law highlights “there are so many opportunities and so we have to identify which ones are the most optimal, that will provide the greatest benefit at the most affordable cost. And so, as an NGO, you’re going from project to project, and sometimes it’s difficult to keep an eye on the bigger picture, because basically you don’t want to run out of money as an organization, and stop existing, and so going from deadline to deadline, project proposal to project proposal, and trying to make every dollar, and do as much as you can with what are often relatively small amounts, it’s a big challenge in terms of keeping an eye on the bigger picture”.

One means of addressing this challenge is to utilize a wide variety of strategies to ensure they have the expertise needed for any project opportunity. P2C is flexible in the type of work that they do, stating “we definitely do a lot of policy work in terms of doing research to inform policy or working with policymakers to develop policy. We also work at the market level, either with corporations or at a broader scope [including] a certification program called Bee Friendly Farming [but] I think of ourselves more as a
research group and kind of a solutions-broker, so kind of helping take the science and turn it into practical solutions and bringing those solutions to interested stakeholders and partners” (Law). They are not limited to policy action as the only means of transforming the food system, and so they are able to reach a wider audience and achieve more in practice change, an important component of systems change (Goodman et al., 2014). A “politics of the possible” means working within the system as it is now, and advancing food movement goals as much as possible within that system (Gibson-Graham, 2006). At the same time, they recognize the importance of advocacy work in opening “cracks” in the system in order to facilitate that change: “Basically, there’s sort of a carrot and a stick situation, where environmental activists and rightly so, in my opinion, will identify companies or practices that are detrimental to the environment . . . and make a public case for these practices to be changed, and I think that’s really important. In our case, we are the carrot to that stick. So you want to change your practices? Here are some ways that you can do it” (Law). Yet this strategy requires reflexivity, as Clapp (2012) identifies the ability to shape public perceptions and influence public debate as a key source of industry power, one challenge for P2C is to maintain their integrity and ensure that they influence the public debate in a positive way, without allowing industry to co-opt and weaken sustainable practices. They address this challenge by aligning their work firmly within pollinator science, which was reflected in the language that the staff used throughout their interviews.

5.3.6.4 Dominant Discourse

Much of the language that P2C staff used throughout the interviews aligns with the dominant discourse in the current (neoliberal) food system, providing a common language with industry and government. International policy circles and industry throughout the global North frequently focus on sustainable intensification and increasing food security, primarily through increasing food production (Tomlinson, 2011). The discourse that accompanies these dominant strategies privileges the role of science and emphasizes “science-based” or “evidence-based” approaches and “best management practices” (Dibden, Gibbs, & Cocklin, 2011; Guthman, 2008b; Lang &
Barling, 2012). Throughout the interviews, P2C used this language to describe their work. For instance, referencing their alignment with pollinator science when referring to the 2014 Health Canada report on neonicotinoids mentioned earlier, Wojcik stated that “the more logical, feasible solution, and actually the one supported by the data is looking at really restricting prophylactic use of pesticides, because a pesticide ban would really alienate all farmers, but looking at changing the way in which products are used and administered is better for bee health, keeps everyone engaged, is one step along eventually swinging the pendulum towards a more sustainable, synthetic pesticide free form of agriculture. And so that tends to be the approach we’ve preferred to take, rather than getting people engaged through a sensational message that’s not necessarily scientifically correct or even feasible”. The science-based discourse further supports relationship building with diverse groups, but also views transformation as ongoing.

At this time, pollinators as a group are not endangered (though some species are, and the range of pollinators and their numbers as a whole are shrinking) meaning that the conservation science utilized by P2C contains discourse such as “preserve” and “sustain and improve the status quo” which may be more palatable to those with power - who have a stake in maintaining the conventional food system - than discourse around “broad systems change” or “dismantling corporate power” used by some groups that claim a food sovereignty perspective (Holt-Giménez & Shattuck, 2011). Utilizing the dominant discourse is possible because of the nature of the issue that P2C focuses on, emphasizing small changes that directly address a significant issue (pollinator decline) in the current food system. Indeed, previous research has shown that outlining possible losses in international markets was a key strategic focus for an anti-genetically modified organism coalition that successfully prevented the introduction of roundup ready wheat on Canadian farms (Eaton, 2013). Food movement groups focused on other significant issues, such as food security or farmer and farmworker livelihoods, may consider ways in which their concerns can be framed in such a way that gets powerful food system actors on board with their goals.
5.3.7 Discussion: Local Transformations and the Global Environmental Politics of Food

If taken up by widespread, diverse organizations and across scale, the strategies presented here may ultimately supporting a transition to a sustainable food system at a broader scale. Though P2C’s work focuses on small wins, using the politics of the possible framework to understand the findings presented above implies that as alternative initiatives crack open spaces of possibility in the conventional food system, there will be more opportunities for transforming the system. While P2C’s work adjust practices without radically altering the food system, working on these small wins opened the door for this organization to participate in policy initiatives, ultimately supporting further change.

A key component of the politics of the possible is recognizing the value of transformations at the local level in promoting large scale transformation (Gibson-Graham, 2006). In the discussion that follows, I outline how the strategies that came out of the micropolitical analysis can address challenges in the global environmental politics of food, if taken up by widespread, diverse organizations. Scholarship on the global environmental politics of food centres around four key challenges of the food system that make advancement of a sustainable food system difficult: the weak and fragmented governance arrangement; asymmetrical power dynamics within the food system; its complex and distanced nature; and multiple, conflicting scientific approaches to improving environmental sustainability (Clapp & Scott, 2018). Here, I extend the micropolitical analysis presented earlier to outline the ways in which diverse food movement initiatives may be able to transform the food system despite, or rather because of, their neoliberal leanings in the context of these broad system challenges (Mount & Andrée, 2013). That is, the ways in which these strategies may support systemic change if utilized by the food movement as a whole.

First, the weak and fragmented landscape of food systems governance presents a key challenge to transforming the food system (Clapp & Scott, 2018). Currently, governance arenas tend to focus on single issues at single scales rather than addressing the broad
food system (Clapp & Scott, 2018). Though some food scholars argue that for this reason a “full systems approach” is most transformative (Levkoe, 2011), and that governments should integrate a “joined-up food policy” to integrate the many agencies pertinent to food policy (MacRae, 2011), food movement initiatives may be more successful by adopting strategies that match the realities of the current context. By focusing on a single issue, P2C was able to build their expertise on that issue, and through that expertise gain a reputation that appeals to diverse partners. Further, without being pulled in multiple directions, they are able to focus their attention on one key issue and take advantage of opportunities as they come up. As such, this case study demonstrates that the full systems focus needed for food systems transformation (Levkoe, 2011; MacRae, 2011) may be best achieved through a diversity of organizations all working on single issues.

Their strategies that ultimately appeal to diverse partners, including corporations, helps P2C address a second key challenge, the asymmetrical power dynamics within the food system. Large transnational corporations maintain most of the power in the food system, leaving producers and consumers powerless but deeply affected by decisions made by TNCs (Clapp & Scott, 2018). In addition, food movement organizations are frequently left out of policy debates completely, or given token representation without meaningful participation (Koc & Bas, 2012). By advancing partnerships with diverse groups, and particularly industry groups, P2C has carved out some power in a key policy arena in Canada, a value chain roundtable. Though P2C’s ultimate goal is conservation-based, the role of pollinators in commodity production (honey and some agricultural products) may have supported their ability to overcome existing power inequities (Starobin, 2018). Partnering with industry brings a risk of co-optation (Jaffee & Howard, 2009), and future research should investigate how food movement organizations may engage industry to carve out power in the food system rather than weakening alternative systems.

The third challenge is the complex and distanced nature of the food system because with product exchange happening across multiple agents and across the globe, it is
“difficult to situate responsibility for environmental damage in the food system or to mount campaigns of resistance” (Clapp & Scott, 2018, p. 3). At the same time, this also allows numerous ways to frame problems and multiple entry points to address them, resulting in plethora of alternative food initiatives at the farm level (e.g. agricultural initiatives), along the supply chain (e.g. certification schemes), and in addressing consumer habits (e.g. consumer education programs) (Desmarais & Wittman, 2014). With opportunities-based action, P2C has used all of these entry points to reach their goals. Though some debate the utility of different strategies (Allen et al., 2003), P2C does not feel constrained by “political” verses “market” action, and instead works on any type of initiative that will advance pollinator health. That is, they maintain a “freedom to act” (Gibson-Graham, 2006). P2C’s focus on a single issue also allows them to narrow their focus in a complex food system while building a suite of diverse tools for moving towards a sustainable food system. This again suggests that a wide variety of organizations, each with in-depth knowledge of specific issues, may support the food movement in building a suite of diverse tools that covers the wide diversity of food systems issues, able to act on opportunities as they arrive in any agency across the globe. Though opportunities-based action has been critiqued in the literature, for example with Guthman (2008b) noting that breaking down systems requires more proactive work, by being open to opportunities, P2C was able to respond quickly when Health Canada released a damning report on the impact of neonicotinoid seeds on pollinator health, which was ultimately a gateway to joining the value chain round table. With a diversity of organizations across the globe maintaining a ‘freedom to act’, there may be more opportunities for systemic change as opportunities arise.

The final challenge outlined by Clapp and Scott (2018) is that proponents of food systems change advocate diverse and conflicting approaches to environmental sustainability, including sustainable intensification (Godfray et al., 2010) and agroecology (Rosset & Altieri, 1997). Sustainable intensification refers to improving technology in order to increase food production while decreasing environmental impacts (Godfray et al., 2010), while agroecology refers to small scale agriculture that uses
biodiversity, rather than pesticides and fertilizers, to address environmental concerns (Rosset & Altieri, 1997). Though both aim to advance environmental sustainability, advocates of agroecology argue that proposing costly technologies is more of the same Green Revolution strategies that led to the current social and environmental challenges in the food system today (Holt-Giménez & Altieri, 2013). With science-based strategies and language, P2C utilizes the dominant discourse of powerful food system actors, breeding comfort for industry and government partners and ultimately carving out power to advance agroecological practices such as integrated pest management. Terms like evidence-based and science-based policy have been critiqued as privileging the role of science at the expense of marginalized groups who may not have access to this science (Dibden, Gibbs & Cocklin, 2011). This is an important consideration that warrants further research, but the use of strategic language that appeals to powerful food system actors may be an important strategy for other food movement groups seeking to advance their goals within these circles.

5.3.8 Conclusion

The micropolitical analysis presented here suggests four strategies that practitioners might use in their work each day to advance a sustainable food system. Single-issue expertise, diverse and collaborative partnerships, opportunities-based action, and use of the dominant discourse are local solutions to challenges in the global environmental politics of food. They are not the only practical strategies for advancing a sustainable food system; rather they represent a politics of the possible: a means of working towards building a sustainable food system within the neoliberal context.

In many ways, some of P2C’s projects reflect neoliberal rationalities, particularly consumer choice (through their labeling scheme) and localism (through local transformations, for example at the farm level) (Guthman, 2008a). Working closely and collaboratively with industry partners, using science-based and opportunities-based action have been critiqued in the literature as failures to look beyond the current food system (Guthman, 2008b). Yet in examining the organization’s effects as a whole, it
may be precisely these strategies that have enabled P2C a voice at a federal policy roundtable. While not using this platform to initiate radical political reforms (Navin & Dieterle, 2017), they are utilizing a food democracy approach that has so far garnered a large number of small wins (Hassanein, 2003). Certainly, P2C’s work falls within the current system. This is necessary not only to receive funding and continue their work, but also to understand the system and determine leverage points for change: where are the cracks, and how can they be filled?

Utilizing micropolitical analysis allows the scholarly conversation to move beyond broad conceptualizations of change to consider the ways in which practitioners might adjust their strategies today to further their goals. That is, specific, clear examples of everyday, nitty-gritty strategies that make sense to practitioners, currently lacking in the literature. Following Gibson-Graham (2006), I aim to bring the examination of this case study “out of the realm of abstract theorizing and into everyday practices of living together and building alternative futures” (p. x), furthering the utility of the politics of the possible in food studies, where it has thus far been used primarily as a lens by which to interpret alternative food initiatives. Though a single case study, this research demonstrates the utility of micropolitical analysis in the food movement literature. Further research should expand on these findings by conducting micropolitical analysis on diverse food movement initiatives, thus expanding the catalogue of strategies for food movement groups to engage in and adjust for their needs and contexts as they animate a politics of the possible.

Though I emphasize the everyday utility of this research, the findings presented here also contribute to broader discussions around the global environmental politics of food, arguing that the strategies employed by P2C may provide local actions that, expanded across diverse organizations, can support broad systemic change. By bringing attention to how everyday actions on a local level address challenges in the global environmental politics of food, I demonstrate a politics of the possible, and the ways in which local initiatives promote global transformation.
5.3.9 References


6 Conclusion

6.1 Summary of Research Findings and Conclusions

This dissertation examines how the neoliberal context influences organizations working under the food movement banner and what strategies these organizations use – and which may be most effective – to enhance their transformative potential in this context. It demonstrates that given the neoliberal context, neoliberal leanings and ‘alternative’ strategies may be necessary precursors to systemic change by (1) demonstrating what a new food system might look like, (2) garnering widespread support for this system, and (3) appealing to those currently governing sustainability transitions, including policymakers and industry actors.

As a collection, the four key papers that make up this dissertation demonstrate that pragmatic alternatives to the conventional food system may be a necessary precursor to broad systemic change. Critiquing scholars who argue that ‘oppositional’ activities may be necessary for transformative change, as suggested in much of the literature (e.g. Guthman, 2008), I support a growing body of scholarship that suggests otherwise (e.g. Andrée, Ballamiegie, & Sinclair-Waters, 2014). I build on this body of work by showing that in the current context, alternative initiatives may be a necessary precursor to policy change – and the systemic change that presumably follows – by demonstrating what the new system may look like in practice, as well as garnering widespread support for this new system. Indeed, oppositional activities may be more alienating and may actually reduce opportunities for change compared to ‘alternative’ initiatives in Canada. This point is highlighted throughout the dissertation, in particular in section 5.3.6 of chapter 5. In addition, and as illustrated in the discussion of chapter 3, existing formal avenues for policy change effectively prohibit food movement involvement. Meanwhile, alternative initiatives are widespread and instigating broad value change amongst Canadians (see section 4.3.6.2 in chapter 4). From this, using the multilevel perspective, we may take away the conclusion that such value changes likely support broader systemic change (see section 3.3 in chapter 3), and when policy makers are
ready to instigate changes towards sustainability, they may be more likely to engage those organizations with expertise in viable alternatives as opposed to more oppositional organizations (see section 5.3.6.2 in the findings in chapter 5). Further, we may take from the papers that make up the dissertation the notion that those who have worked collaboratively and successfully with policy makers and their current partners (made up primarily of industry) may have more success affecting policy when opportunities arise. The remainder of this concluding chapter highlights more specifically the key messages from each empirical chapter as they relate to the dissertation as a whole. This is followed by recommendations for future research and a summary of the overall contribution to knowledge.

6.1.1 Neoliberalism Influences Strategies by Creating Barriers and Opportunities

Neoliberalism influences food movement strategies by creating barriers to food movement organization engagement in policy processes, but also by creating opportunities through ‘cracks’ or spaces of possibility. In the GF2 case study outlined in Chapter 3, I utilized the multi-level perspective to demonstrate that the food crisis, the dominant landscape pressure affecting the food system today, is currently stabilizing the conventional food system (the regime). Regime actors use this landscape pressure to justify their recommendations (reduce barriers to science and technology and support Canada’s competitiveness in the global market) in support of the regime. The key insight that I draw from this work is that the GF2 public consultation process is a tool of the regime and thus is an unlikely avenue for challenging the regime. Specifically, the preliminary topic selection and choice of expert witnesses favored recommendations to support the regime and provided barriers for the food movement to engage in policy change through this avenue. Further, this case study demonstrates that pressures at the niche level – the alternatives provided by the food movement – are vital for increasing pressure on the regime by vocalizing discontent, cracks in the system that provide spaces of opportunity. In this chapter, I conclude with recommendations that the food movement work at the niche and landscape levels to increase pressure on the
regime. This means continuing to provide a viable alternative to the conventional food system while supporting broad value change in support of this alternative food system.

6.1.2 The Canadian Food Movement is Working Within and Opposed to the Conventional Food System

The Canadian food movement has responded to the neoliberal context by operating within the cracks created by discontent with neoliberal policy, filling these cracks with alternative initiatives and transformative visions of change, alongside political initiatives. These initiatives demonstrate what a new food system might look like while garnering widespread support for this system. In examining food movement organizations in four provinces across Canada in Chapter 4, I found convergence around alternative initiatives but also around transformative visions of change and political engagement at the municipal level. Given the barriers to food movement participation in Canadian federal food policymaking outlined in Chapter 3, it is perhaps not surprising that, despite the desire for policy change, most organizations are not working at the federal level. The diversity of strategies employed by the organizations surveyed indicates that the Canadian food movement is working both within and opposed to the conventional food system. In addition to pragmatic solutions at the niche level, alternative initiatives are also cracking open spaces of possibility, providing opportunities for Canadians to create communities based around food, enter food-based activism, and demonstrate their discontent with the conventional food system. Though food movement organizations demonstrated support for transformative policy change, they are more actively involved in policy initiatives less alienating and seemingly inaccessible to governments than more radical policy changes such as land redistribution.

6.1.3 Alternative Strategies Facilitate Transformative Change through Small Wins

One food movement organization has responded to neoliberal barriers and spaces of opportunity by focusing on small wins that engage powerful stakeholders, including industry and government, to carve out space in governing sustainability transition in one small area (pollinator health). P2C is working within, and expanding, the cracks of the
conventional food system, and is working on food-based policy change at the federal level, as outlined in Chapter 5. Their on-the-ground initiatives, including planting guides and outreach activities, are adjusting conventional practices towards sustainability without radically altering the food system. Yet it is precisely these initiatives that supported their ability to build relationships with policy makers, opening up possibilities to support broad systemic change. Further, the organization studied in chapter 5 has facilitated opportunities for more oppositional organizations to engage with policy makers. This chapter demonstrates that it is precisely the ‘alternativeness’ of their strategies, and the ways in which these alternatives offer minor adjustments rather than drastic changes, that has opened the door for more transformative systemic change in the future. In this chapter, I argue that given the context of the conventional food system, by prioritizing a large number of small wins, they have had a greater impact than seeking immediate broad systemic change. Their strategies support funding acquisition, necessary to sustain initiatives, but also support a better understanding of the conventional food system to gain a clear view of where in the system is ready for change, and what sort of change is feasible in the short term.

### 6.2 Recommendations for Future Research

Future research should utilize more quantitative methods and microanalysis, both of which provided key insights into food movement strategies in this dissertation. Food movement researchers should continue and develop the research initiated in this dissertation on practical guides for community groups and organizations, and should aim to generate and synthesize information that will support and enhance the food movement. This entails further lessons learned on best practices, and less attention to the shortcomings of the food movement without clear and practical information on suitable replacement strategies. This will be best achieved through community-based research that is driven by food movement organizations and prioritizes their research needs. Such research should be entail coproduction of knowledge with food movement groups and organizations to ensure that knowledge produced is both timely and relevant to these organizations, thus supporting their transformative potential.
In addition to providing practical support for on-the-ground initiatives, further research should more carefully consider what an ‘oppositional’ initiative might look like in Canada given the political stagnation in formal policy channels outlined in Chapter 3 and following the criticisms of the ‘consumer choice’ and ‘neoliberalisation’ of the food movement outlined in Chapter 4. What sorts of initiatives are adequately oppositional? Further, if immediate and radical structural change is required, what will these new structures entail, and how quickly should such a transformation of the food system occur while ensuring adequate food production and affordability? Taking this further, if food is de-commodified, how will those who produce and distribute our food be rewarded? Future research should consider more carefully what a new food system would look like in this case. Alternatively, future research should investigate possible entries into policy change beyond protests, where scholarship on ‘oppositional’ initiatives focuses (Fairbairn, 2012), and at which point policies are in place until the next policy development process. Other possible entry points include the policy consultation process, and even prior to consultation when organizations may build relationships with policy-makers. Though this research provides some insight into barriers to policy consultation processes (in Chapter 3) and opportunities in the pre-development phase (in Chapter 5), there is much work to be done.

A related focus for future research that arose in pursuit of this dissertation includes clarity on who is the food movement. Given that many organizations did not see themselves as part of a food movement, how can a broad food movement be defined? What organization structures and goals, if any, are preconditions for inclusion in a broadly defined food movement? Specifically, given the results from the P2C case study and the successes achieved by the organization by partnering with industry, what role is there for agribusiness in the food movement? How can partnerships with industry evolve to further specific food movement goals without compromising overall values? Special attention should be paid to the arguments that agribusiness cannot be involved in the food movement.
Finally, this research examines the transformative potential of the food movement in terms of its strategies. A gap remains in whether food movement alternatives adequately address issues of racism, classism and sexism in the dominant food movement (Allen, 2014). Related, the research provides further understanding of the food movement in four Canadian provinces, but further research on the food movement dynamics within each province, particularly in terms racism, classism and sexism would add to the discussion on the food movement’s transformative potential. In addition, future research should investigate more fully the uneven distribution of initiatives and diversity of goals and strategies within each province to better understand the barriers and possibilities for convergence. Finally, investigation into other parts of Canada, and particularly Canada’s North, would provide valuable contributions to the literature.

6.3 Overall Contribution to Knowledge

What began as an interesting case study due to the potential for Canada’s food movement to impact policy and governance of the Canadian food system (see introduction), this dissertation has evolved into a growing understanding of the theory of food systems change and how it interplays with food movement practice. This evolving perspective has occurred in tandem with the burgeoning scholarship on the Canadian food movement over the past five years. During the course of this research, Canadian food movement scholarship more broadly has emerged as a unique body of literature on the intersection of social movements, systems thinking and governance (Mount, 2019). When I began this research, much of the literature was focused on the alternative/oppositional debate, and defining food movement actors as citizens or consumers (e.g. Holt-Giménez & Shattuck, 2011; Goodman, Dupuis & Goodman, 2014; Levkoe, 2011). While this debate is still prominent, today food movement scholars are increasingly examining the need to work on systemic change on the ground (Andrée et al., 2019). Canadian case studies are prominent (but not exclusive) in this work (e.g. Blay-Palmer, Sonnino & Custot, 2015; Connelly & Beckie, 2016). This body of scholarship (including this dissertation) moves beyond contextual case studies to inform theory on how the food movement is demonstrating the potential for a different, more
sustainable food system by providing alternatives. That is, scholars are moving beyond considering policy change as the primary means of systemic change and are recognizing that practical initiatives and diverse partnerships, including industry, may be key strategies for systemic change in Canada and elsewhere (Andrée et al., 2019). Though the particulars of the Canadian food system (e.g. the history of state and civil society interactions) provide a unique context for food movement organizations here, the productionist and neoliberal ideology favoured by the Canadian government is the same context in much of the Global North. As such, the lessons learned in this dissertation may be valuable for food movement organizations outside of Canada as well.

As noted above, this dissertation contributes to the growing body of Canadian food movement scholarship that centers on the intersection of social movements, systems thinking, and governance (Mount, 2019). I first examine food movement engagement in the GF2 policy consultation process, though upon finding a lack of food movement engagement, this analysis turned into an explanation of the barriers to meaningful consultation that limit food movement involvement in food systems governance at the federal level. Integrating sustainability transitions research by utilizing the multilevel perspective, a key analytic framework in this body of scholarship, this research explains the failure of the federal government to adequately engage the food movement in formal consultation processes frequently noted in the literature (e.g. Abergel, 2012). This failure is due to landscape-regime interactions as regime actors (government and industry) support the regime by utilizing the same landscape pressures (e.g. the food crisis) that food movement (niche) actors hope will weaken the regime and support their niche-level initiatives. These findings also have implications for a key debate in food movement scholarship regarding whether ‘oppositional’ or ‘alternative’ initiatives are most likely to transform the food system. Though some suggest that oppositional initiatives such as political advocacy have the greater potential for system-wide change (Guthman, 2008), so far the food movement has had little impact on federal policy (as seen as well in Chapter 3). In contrast, alternative initiatives such as farmers’ markets or
labeling schemes are widespread, but some argue they risk reinforcing the conventional food system rather than transforming it (Allen et al., 2003). Utilizing the multilevel perspective demonstrates that though the food movement’s successes at the niche level have not yet impacted policy change, expanding their impact at the niche level may pave the way for future regime change.

Considering widespread agreement that the Canadian food movement has not effectively impacted food policy at the federal level over the past 20 years (Kneen, 2011), I then examine the strategies that food movement organizations are using to support a transition to a sustainable food system. I expand my contribution to the alternative/oppositional debate in food movement scholarship. Recently, scholars have begun to agree that the food movement requires convergence between alternative and oppositional initiatives, either in terms of partnerships or through shared goals (e.g. Allen, 2014; Constance et al., 2014). This opens up a second debate in food movement scholarship regarding whether convergence around alternatives represents a ‘neoliberalisation’ of the food movement (e.g. Guthman, 2008) or a ‘politics of the possible’ (Harris, 2009). The neoliberalisation thesis posits that the localism, consumer choice, entrepreneurialism, and self-help characteristics of many alternative food initiatives, such as farmers’ markets, CSAs, local businesses, and community gardens, support and reproduce neoliberal rationalities by conceding withdrawal of state responsibilities for social and environmental regulations and placing responsibility for food systems change on individuals (Guthman, 2008). Yet those ‘reading for difference’ through a politics of the possible framework (Harris, 2009) point out the ways in which these alternatives represent a meaningful departure from the conventional food system, providing evidence for what a sustainable food system could look like while at the same time advocating for systems change (Andrée et al., 2014). I demonstrate that, given the lack of impact on federal policy, food movement organizations are turning to other spaces of possibility: breaking open cracks in the conventional food system. By interpreting the survey results through both lenses (neoliberalisation and politics of the possible), I find evidence of a complex picture of neoliberal tendencies but also
convergence around successful initiatives that are expanding their impact and engaging Canadians, supplemented by political activities. Though not their main goals, organizations are engaging in partnerships with governments as well as advocacy, particularly at more accessible municipal governments.

This work sets the stage for further investigation of the politics of the possible through examination of an organization working on policy change at the federal level alongside initiatives that could be interpreted as neoliberal (e.g. labeling schemes, industry partnerships, educational materials aimed at individual action). I argue here that it is precisely their neoliberal tendencies that opened up spaces of possibility. Building on the politics of the possible framework, I outline what, precisely, it means to work ‘within the cracks’ of the neoliberal food system. I explain how doing so has allowed this organization to expand these cracks, affect federal policy, and ultimately support a broader transition towards a sustainable food system. This chapter supports earlier findings that further expansion of niche initiatives through partnerships with industry (regime-level actors) may be better suited to affecting policy change (regime change) than the oppositional tactics (e.g. civil disobedience) that some researchers call for.

To bring this dissertation back to where it began, as a whole this dissertation examined the disconnect between bodies of literature on (1) the food movement’s impact on food policy and (2) the transformative potential of the food movement. While the former body of research is dominated by examples of the food movement’s inability to affect policy change (Abergel, 2012; Koc & Bas, 2012), many in the latter argue that the transformative potential of the food movement depends upon its ability to support policy change though oppositional action (Guthman, 2008; Wittman, 2009). In this dissertation, I suggested that this disconnect stems from the challenge of working to change a system from within the bounds of that system. Through closer analysis of each side of this debate, I provided further insight on this challenge for the Canadian food movement. This included (1) investigation into the particular barriers to meaningful engagement in policy processes, and (2) examination of the strategies that organizations are using to support a sustainable food system transition in spite of these
barriers. I then provided in-depth analysis of one organization that is affecting policy change, and argue that they are able to do so due to their on-the-ground programs and ‘alternative’ and even ‘neoliberal’ tendencies.

In each paper, and as a whole, this dissertation furthers the theory and practice of food movement strategies as a tool of both scholarly enquiry but also as a way of affecting food systems change. Through the research presented here, I ultimately seek to support the food movement and enhance its transformative potential by highlighting the reality of working within the conventional food system to influence systemic change through feasible and strategic, yet transformative, action.

Finally, this research has implications for the dual challenge of food insecurity and environmental degradation of agriculture, and the consequent arguments that corporate interests currently broadly govern the food system. I begin with the premises that (1) existing policy channels are unlikely to affect change; (2) the Canadian food movement is working within and opposed to the conventional food system to affect change; and (3) alternative strategies facilitate transformative change through small wins. Following these key messages, and given the enormity of the dual challenge, food movement groups must consider how to engage with powerful stakeholders without being coopted. Addressing the reality of the conventional food system in this way may provide an opportunity for the food movement to play a more active role in governing sustainability transitions in the food system.

6.4 References


APPENDIX I: ETHICS APPROVAL
RESEARCH ETHICS BOARDS
Certification of Ethical Acceptability of Research Involving Human Participants

L. Kuczynski
Chair, Research Ethics Board-General
The members of the University of Guelph Research Ethics Board have examined the protocol which describes the participation of the human participants in the above-named research project and considers the procedures, as described by the applicant, to conform to the University's ethical standards and the Tri-Council Policy Statement, 2nd Edition.

The REB requires that researchers:

- Adhere to the protocol as last reviewed and approved by the REB.
- Receive approval from the REB for any modifications before they can be implemented.
- Report any change in the source of funding.
- Report unexpected events or incidental findings to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants, and the continuation of the protocol.
- Are responsible for ascertaining and complying with all applicable legal and regulatory requirements with respect to consent and the protection of privacy of participants in the jurisdiction of the research project.

The Principal Investigator must:

- Ensure that the ethical guidelines and approvals of facilities or institutions involved in the research are obtained and filed with the REB prior to the initiation of any research protocols.
- Submit an Annual Renewal to the REB upon completion of the project. If the research is a multi-year project, a status report must be submitted annually prior to the expiry date. Failure to submit an annual status report will lead to your study being suspended and potentially terminated.

The approval for this protocol terminates on the EXPIRY DATE, or the term of your appointment or employment at the University of Guelph whichever comes first.

Signature: ____________________________ Date: November 10, 2017

______________________________
Stephen P. Lewis
Chair, Research Ethics Board-General
APPENDIX II: LIMITATIONS AND REFLECTION ON METHODS

A key strength of this research is the diversity of its methods, providing different perspectives on food movement strategies in the neoliberal era. Through policy analysis, quantitative methods and a qualitative case study, this work has furthered understanding of key concepts in the literature.

Analyzing the GF2 parliamentary consultation transcripts is unique in Canadian food policy literature (e.g. Abergel, 2012; Andrée, 2011; Eaton, 2013; Koc & Bas, 2012). This method provided a new perspective on this stage in the policy development process, and resulted in added clarity into the particular mechanisms (topic and witness selection) used within the consultation process to sustain the status quo. In addition, the analytical framework used in this paper explains consistent findings in the literature. Previous research has consistently demonstrated the government’s failures to adequately engage CSOs seeking broad change in consultation processes (e.g. Abergel, 2012; Koc & Bas, 2012). Using the MLP as an analytical framework furthered understanding of why this pattern remains consistent. Specifically, the research demonstrated that the food crisis, the dominant landscape pressure on the Canadian food system, currently supports the status quo, rather than challenges it as assumed by many sustainable food system advocates and researchers. This research was limited to publicly available transcripts, and as such the analysis was limited to the decisions made in Parliament. Although the research provided insight on which witnesses were invited to speak and demonstrates the bias toward industry, it is less clear how witnesses were approved. Specifically, it is unclear whether CSOs seeking broad systemic change were eliminated as potential witnesses or never considered at all, since the elimination process occurred outside of Parliament.

Cluster analysis and descriptive statistics conducted on a large sample size from four provinces across Canada provided empirical evidence for convergence around organizational discourse, engaged activities, visions of sustainable food systems, and the actions and policies needed to achieve these visions. Until recently, food movement
scholarship has relied heavily on individual case studies (Marsden and Franklin 2013) and this quantitative analysis is an important contribution to the literature. Though the findings were surprising – based on the literature and the organizations surveyed, I had anticipated at least two broad groups of organizations typifying ‘alternative’ and ‘oppositional’ organizations – a conceptual turn to the convergence literature explained the unanticipated results. One key limitation of quantitative methods is that broad trends may overshadow the unique. This limitation was particularly pertinent in this research, since a number of highly oppositional organizations participated in the survey. This is important because a broad trend based on the number of organizations characterizing themselves in a particular way does not suggest that a small number of different, but influential, organizations have no impact.

Indeed, it is for this reason that the single case study method was utilized in the next chapter. There are some critiques of single, small case studies as highly specific. Yet the specificity of this case made the investigation particularly interesting to me. Specifically, the organization has had substantial successes in supporting a transition to a sustainable food system through policy work, a common unmet goal for organizations working in the food movement. Although a comparative case study may have added further insight into the organization’s success factors, and where other organizations with similar (unmet) goals were failing, I felt that I could not adequately conduct such a study without comparing and contrasting strategies done “well” and “poorly” within the second case study. Though such a study may be valuable for research, following Gibson-Graham (2006), I hoped to conduct research to inspire rather than restrain, and support rather than criticize, food movement practitioners. This case study again supports the utility of sustainability transitions research and the politics of the possible as analytical frameworks in food movement studies, but also highlights the potential for micropolitical analysis to support food movement studies in furthering debates around transformative action and neoliberalization of the food movement by investigating what these scholarly concepts might look like in an organization’s everyday work.
One gap in this dissertation is the lack of community-based research. Though I built relationships with the organizations I studied, I maintained an analytical distance. This distance provided important insights into food movement strategies. For instance, the survey in Chapter 4 provided a broad overview of food movement strategies in four provinces, and the arms-length approach to the P2C case study in Chapter 5 provided insight on which approaches were most valued by project partners. In both chapters, the scholarly analyses outlined strategies that may be useful for the food movement as a whole. Yet conversations with the study participants in the P2C project highlighted some ways in which scholarship could better enhance on-the-ground projects specific to this organization, currently a gap in this discipline. For instance, P2C later suggested a willingness-to-pay analysis for pollinator conservation as it relates to food. Such a project would enhance P2C’s understanding of which projects to pursue, but would also provide a window into consumer perspectives on potential initiatives, an aspect of the food movement thus far underrepresented in the literature. That is, current research focuses largely on food movement groups and organizations, and the overall impact of consumer participation in alternatives. This example highlights the ways in which closer collaborations between practitioners and academics can further both the practice and scholarship of sustainable food system transitions.
APPENDIX III: AN OVERVIEW OF THE CANADIAN FOOD SYSTEM:
FOOD AND NUTRITION SECURITY IN CANADA

This paper is part of a global food security series put together by the International Association of the Academies of Science. The series aims to inform policy makers of critical issues and potential solutions throughout the Americas. I was asked to contribute to the Canada chapter based on my knowledge of the GF2 policy context in Canada. I have included it here as my dissertation refers to the policy context in Canada, but this chapter provides a broader overview of all aspects of the Canadian food system. It includes trends, challenges and opportunities relative to characteristics, institutions, environment and resources, technology, efficiency, health and policy in the Canadian food system.

Publication Details:

Canada

Summary

Canada is a large country with abundant natural resources, and a highly diverse agricultural sector. It is one of the largest food producers and exporters in the world. Most of its agricultural activity is located near the southern border with the U.S. Despite being a rich country, there is a widening gap between rich and poor, and a significant proportion of its population (approx. 12%) is in poverty and experiences food shortages. Northern communities are particularly vulnerable. In addition, another 20% of the population is considered obese. There is significant investment in agricultural education and research across the country. Universities across the country offer programs in agriculture and food technology. Research to improve food production using advanced technologies is conducted at universities, government labs and by industry. Many policy recommendations have been put forward to encourage farming and to promote sustainable practices. Climate change is a major risk to food and nutrition security in Canada.

1. National characteristics

Canada is the second largest country in the world, with a total surface of 9,984,670 sq. km, including 891,163 sq. km. of water. The current multicultural population of Canada is an estimated 35,362,905, 18.2% living in rural areas and the remaining 81.8% living in urban centers that are mostly within 150km of the Canada/USA border.

Due to its geographic location and the resulting climatic conditions, <7.5% of Canada’s 9,093,507 sq. km. landmass is used for agricultural purposes: the majority being located within 300-400km of the border with the USA. Furthermore, the percent of total land mass dedicated to agriculture varies considerably between provinces being highest in Alberta (31.9), Saskatchewan (42.4) and Prince Edward Island (42.3) with the lowest in Newfoundland (3.1), Quebec (2.5), New Brunswick (5.3) and Ontario (5.6).

The number of active farms in Canada declined significantly between 1911 and 2006, from 728,623 to 229,373. By 2011, the number of farms had decreased an additional 10.3% while the average farm size had increased an average of 50 acres (6.9%). At the same time, the total area being farmed, 160.2 million acres, had declined by 4.1% since 2006. Overall, just under 60% of Canadian farms produce crops while the remainder are livestock based. The provinces of Ontario (51,950), Alberta (43,234), Saskatchewan (36,950) and Quebec (29,437) have the largest number of farms, while the larger sized farms are found in Saskatchewan (1,668 acres), Alberta (1,168 acres) and Manitoba (1,135 acres), significantly larger than 244 and 280 acres in Ontario and Quebec, respectively.
The major agricultural crops are oilseeds (canola, flaxseed, soybeans), cereals (wheat, barley, corn, oats, rye, mixed grains), and pulses (dry peas, lentils, dry beans, chickpeas). In 2011, oilseeds were produced on 30% (19,400,000 acres) of all crop growing land in Canada, with >98% of canola produced in Saskatchewan, Alberta and Manitoba. Most of the soybeans come from Ontario, Quebec and Manitoba. Winter wheat and fodder crops are of considerable importance and each occupy 20% of all crop growing land, although fodder crops have declined (by 13.5% from 2006 to 2011) due to a decrease in beef production. There has been a significant increase in the production of pulses that now represent 6% (2.2 million acres) of all field crops grown in Canada. Many of these pulses (70.3%) are produced in Saskatchewan.

The area dedicated to the production of field vegetables is 267,665 acres, 83.2% of which is in Ontario and Quebec. Sweet corn is the number one crop (over 65,000 acres), followed by green peas, carrots, beans, tomatoes, onions, crucifers and pumpkins. There has been an increase in the greenhouse industry, now at 249.3 million sq. ft., of which 153.1 are dedicated to vegetable production and the remainder to flowers. The majority of greenhouses are found in Ontario (54.2%), British Columbia (24.5%) and Quebec (12.2%) and the most frequently produced vegetables are tomatoes, cucumbers, peppers and lettuce.

In Canada, fruit production occupies 312,041 acres, with blueberries being the most important crop with nearly 175,078,000 acres dedicated to their production in Quebec, the Maritime provinces and British Columbia. Apples are the second most important fruit crop followed by grapes, the latter associated with the expanding wine industry in British Columbia, Ontario, Quebec and Nova Scotia. Other cultivated tree fruits include peaches (3.154 hectares), pears (944 hectares), plums and prunes (684 hectares). Cranberry production has increased nationally, with Quebec and British Columbia being the major producers.

Apiculture is found across Canada though it is concentrated in the prairies. For instance, more than 70% of the 561,967 recorded honeybee colonies, as well as >98% of other bees used for pollination (e.g., leaf cutter bees) are found in Alberta, Manitoba and Saskatchewan. Maple syrup is an alternative to honey and Canada is a major source of maple syrup, with >94% being produced in the province of Quebec.

While there has been a decline in cattle production over the past 20 years, beef and dairy farms still represent the most important sectors of Canadian livestock production. Alberta has nearly 60% of the national beef herd, while Quebec (37.4%) and Ontario (33.1%) are the provinces with the most dairy herds. Quebec, Ontario and Manitoba are the major pork producers while Ontario is the biggest poultry producer in the country, having 38.2% of egg-laying chickens and producing 32.5% of birds destined for the table.

In addition to the active marine fishing industry, aquaculture is now being practiced across the country and represents about 20% of Canada's total seafood products, including various salmon species, trout and arctic char, as well as mussels, clams and oysters.

In the last half century Canada's population has increased from just over 19.6 million to just over 36.5 million. Currently, >81% of the population reside in urban areas (73% in 1965) and >70% of all Canadians live in two provinces, Quebec and Ontario. Due to an aging population (median age in 2016 was 40.8 compared with 27 in 1965) and the decrease in average fertility (the number of children per female declining from 3.8 to 1.6), the natural increase accounts for only one third of population growth. Thus, 67% of the population growth is the result of immigration, a trend that is expected to continue in the coming years.

Currently less than 2% of the economically active population is directly engaged in farming; however, 2.2 million Canadians are working in agriculture and agri-food industry that accounts for 12.5% of the country's labor force (Statistics Canada, 2011; AAFC, 2016c). Yet the number of farmers is declining; in addition to the decrease in the number of farms, average age of farmers is increasing, which indicates an alarming failure of intergenerational transfer (Schutter, 2012). About 14% of Canadian farms are considered multigenerational and this is lowest in Alberta (12.3%) and highest in Quebec (20.3%), while just under 7% of the farming community is made up of mainly European immigrants to Canada. The National Farmers Union (NFU) of Canada complains about the role of powerful lobbies of the food manufacturing sector that keeps the price of their products at low levels while the input prices farmers pay are constantly increasing. This is known as the cost-price squeeze and has contributed to the increasing number of farmers leaving their farms, unable to maintain a living.

While precision agriculture, defined as technologies such as "smart tractors or robotic milkers" that allow farmers to tailor inputs more precisely, has improved efficiency it also
requires a significant investment in machinery and subsequently is more cost-effective on larger farms. This would explain why <10% of the active farms in Canada, often family corporations, account for approximately 50% of all gross agricultural receipts. The observed increase in the average age of farmers is, at least in part, due to the high costs of establishing a successful business. However, the increase in the value of certain crops and the resulting increased profitability of farming as an enterprise is bringing younger people back into the business.

Temporary foreign workers are an important part of Canadian agriculture and there are two different government programs available. The first is the Seasonal Agricultural Workers Programme (SAWPP) open to citizens of Mexico and twelve Caribbean countries. If approved, workers may spend up to 8 months in a calendar year working on Canadian farms. The second program is called the Temporary Foreign Workers Programme and allows for citizens from other countries to work in agriculture for up to two years.

Canada is a major player in the international trade of Agriculture and Agri-food Products (AAP). It was ranked fifth largest exporter in 2014 and sixth largest importer of AAP in the world. In that year, Canada export and import sales reached $51.5 billion and $39.4 billion, which accounted for 3.6% and 2.9% of the total value of world AAP exports and imports, respectively. In 2015, Canada’s agri-food and seafood exports exceeded CAD$616G. The major importing countries were the USA (CAD$32.6G), China (CAD$30.6G), Japan (CAD$3.8G), Mexico (CAD$1.7G), India (CAD$1.5G), Hong Kong (CAD$0.9G), Italy (CAD$0.8G), Bangladesh (CAD$0.8G), Indonesia (CAD$0.7G) and the United Arab Emirates (CAD$0.6G). The top export agri-food products were wheat, canola seed, dried legumes, crustacean products, pork, unmodified vegetable oils, soybeans, bread and pastry, live cattle and beef.

In the same year, agri-food imports were about CAD$47.0G, with the biggest exporters being the USA (CAD$28.0G), Mexico (CAD$2.1G), China (CAD$1.4G), Italy (CAD$1.1G), France (CAD$0.9G), Brazil (CAD$0.8G), Chile (CAD$0.8G), Thailand (CAD$0.8G), Australia (CAD$0.6G) and India (CAD$0.6G). The top imported products were wine, prepared foods, bakery products, pet food, coffee, chocolate and cocoa-containing products, bottled waters, fresh fruits, prepared fruit and nut products and crustaceans.

One of the major challenges for Canadian agriculture, as for all other countries, will be adapting to the effects of climate change. This is because climate change will not only have direct effects on crops but will also affect the impact of both beneficial organisms (e.g. pollinators, biological control agents, mycorrhizas) as well as pests (e.g. herbivores, pathogens). As the demands for agricultural products increase globally, other challenges will include the development of policies that ensure the quantity and quality of agricultural land that is available to provide the desired productivity, while limiting the negative effects that agricultural practices have on other ecosystems.

Finally, food security is a major issue for many of Canada’s northern communities that do not have access to land suitable for farming and are isolated and remote. Food insecurity in northern communities is further exacerbated by climate change, as increasing temperatures are shortening the time that “ice roads” can be used to safely transport goods from South to North. Clearly, these needs must be addressed through the development of new approaches driven by social welfare programs backed by cutting-edge research and initiatives that will provide opportunities for developing certain forms of sustainable agriculture in areas where it is currently limited or inexistent.

Across the country, approximately 1 in 7 Canadians (1 in 5 children) are considered to be living in poverty, affecting their access to food, suitable housing and medical care. The incidence is higher amongst certain groups, which include single mothers, the elderly, members of first nations and Canadians with mental or physical challenges. In recent years, there has been a significant increase in the use of food banks in most parts of the country as 12% of Canadian households have difficulty putting food on the table.
Table 1. Agriculture and Agri-Food Canada research stations across the Canadian provinces (AAFC, 2017a)

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<tr>
<th>Provinces of Canada</th>
<th>Research Stations</th>
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<td>British Columbia</td>
<td>Agassiz Research and Development Centre</td>
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<td>Summerland Research and Development Centre</td>
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<td>Alberta</td>
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<td>Lethbridge Research and Development Centre</td>
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<td>Saskatchewan</td>
<td>Saskatoon Research and Development Centre</td>
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<td>Swift Current Research and Development Centre</td>
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<td>Manitoba</td>
<td>Brandon Research and Development Centre</td>
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<td>Morden Research and Development Centre</td>
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<td>Harrow Research and Development Centre</td>
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<td>Quebec</td>
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<td>Saint-Jean-Sur-Richelieu Research and Development Centre</td>
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<td>New Brunswick</td>
<td>Fredericton Research and Development Centre</td>
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<td>Prince Edward Island</td>
<td>Charlottetown Research and Development Centre</td>
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<td>Nova Scotia</td>
<td>Kentville Research and Development Centre</td>
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<tr>
<td>Newfoundland and Labrador</td>
<td>St. John's Research and Development Centre</td>
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2. Institutional Setting

National agricultural research systems: Canada’s research capabilities and areas of local strength

Canada is one of the world leaders in agricultural research. The federal ministry of Agriculture and Agri-Food Canada (AAFC) has 20 research and developmental centers across the country (Table 1) (AAFC, 2017a). These research stations, along with their satellite locations and facilities, provide the country with scientific research and advancements in agriculture. Also, many of these research centers are participants in the minor use pesticide program, which was launched in 2002 by AAFC and Health Canada’s Pest Management Regulatory Agency (AAFC, 2017b). This program works toward increasing grower competitiveness by providing new and effective crop protection tools and technologies (AAFC, 2017b). Each province across Canada also has distinctive areas of focus and research systems relating to the unique characteristics of the agricultural systems in that region (see Section 1). For example, one of the research centers in Saskatchewan (Swift Current Research and Development Centre) focuses on addressing severe drought, erosion, frost, pests and crop disease-related problems, as well as developing land management systems to enhance soil and water quality for the growth of wheat varieties (AAFC, 2017d). Implementation of new technologies and methods has allowed for high productivity in the agricultural sector. However, research and particularly projects that are more long-term need to be better funded. The “fast-to-market” mindset is driving research
funds to meet short-term market objectives. In addition, each province also has ministries of agriculture and often these are linked closely with specific universities. For instance, the Ontario Ministry of Agriculture, Food and Rural Affairs maintains a close connection on research and extension with the University of Guelph through a “research contract” that includes cooperating on maintaining agricultural research facilities as well as laboratories devoted to animal and food safety.

Research and development has also led Canada to become an international leader in areas such as animal genetics, the development of new cultivars, and greenhouse and climate-controlled greenhouse production (Steppler & Switzer, 2014). Canada is also internationally known for its research successes in plant and animal breeding, and disease control.

Development of wheat varieties, from Red Fife (1840s) to Marquis (1907) and to rust-resistant varieties (e.g. Renown 1936, Selkirk 1953) are among the most significant achievements (AAFC, 2017d). The creation of canola as a source of vegetable oil was also an important Canadian success story during the post-war period (AAFC, 2017d). Research on this was conducted at the University of Manitoba that was largely responsible for the development of a new cereal crop, triticale, a fertile cross between wheat and rye (AAFC, 2017d). In terms of livestock genetics, Canada is also a leader. For instance, work done at the University of Guelph has used genetic breeding values for immune response to naturally breed cattle for greater disease resistance. Other important developments in improving maize (corn), soybeans, sunflowers, tobacco, and various fruits and vegetables have helped increase crop yield (AAFC, 2017d). There is also important
research looking at genetic and congenital defects of animals such as poultry (for meat and egg yield), beef and dairy cattle (AAFC, 2017d).

**Canada’s scientific collaboration**

Several programs have been developed to promote scientific collaboration and innovation. The Growing Canadian Agri-Innovations Program has many initiatives such as promoting agri-based investment opportunities that link potential investors and agri-entrepreneurs (AAFC, 2017b). The Agricultural Bioproducts Innovation Program is another program that is aimed at supporting networks of private, public and academic talent to build research capacity in specific areas of agricultural bioproducts and bioprocesses (AAFC, 2018b). International collaborations are also a major emphasis. For example, Canada is one of the founding members of the Global Research Alliance on Agricultural Gases, which is an international network of more than 30 countries devoted to collaborative research on greenhouse gas mitigation and beneficial management practices for farmers (AAFC, 2017a). Canada and the USA have a long history of bilateral science and technology collaboration in Agriculture, which is particularly useful as they share some similar climatic zones (albeit only with northern states). This partnership is a major economic sector for both countries and includes the AAFC and the United States Department of Agriculture (USDA) collaborating on many initiatives including PROCINORTE, the Soil Moisture Active Passive (SMAP) and the Wheat Initiative that helps advance the agriculture sector (AAFC, 2017a). Canada and China also have a strong and well-established relationship in agricultural research in genetics and genomics, crop pests and diseases, agri-food, and sustainable production systems (Government of Canada, 2016). The Canada-China Agriculture Science Network was recently launched in 2014 to bring together Canadian and Chinese agricultural scientists and collaborators (Government of Canada, 2016).

**Canada’s agricultural databases**

Agricultural databases are critical in scientific research and can reduce duplication and provide a snapshot of the current state of work. Databases such as the Grower Priority database provides an information source for growers, registrants, and regulatory officials (Health Canada, 2014). The National Soil database also contains important information relating to soil, landscape and climate data for all of Canada (AAFC, 2017c). The national archives contents were collected by federal and provincial field surveys, or created using information from land data analysis projects. Other collections such as the Glomeromycetes In Vitro Collection (GINCO), are also essential for scientific research. For example, GINCO, the first international collection of Glomeromycete (Mycorrhizal) fungi propagated under monoxenic culture conditions on excised roots is a valuable source of material for crop plant-microbe interactions research (AAFC, 2017a). The Plant Gene Resource of Canada contains a clonal genebank and helps conserve, characterize, index and distribute crop plants (AAFC, 2017a). Other collections such as the Canadian National Mycological Herbarium (DAOM) holds over 350,000 fungal and fungal plant disease specimens, which makes it the largest fungarium of non-lichenized fungi in Canada (AAFC, 2017a). The AAFC also contains collections of vascular plants and includes 1.5 million irreplaceable specimens protected in a climate-controlled environment at AAFC’s Central Experimental Farm (AAFC, 2017a). Although databases and collections require a long-term commitment for development and ongoing maintenance to stay current, they are essential to Canada’s ongoing research in agriculture and need to be improved.

**Universities and research institutes**

**Scientific development and infrastructure**

There is significant agriculture expertise across the country, although cuts in federal spending in recent years have resulted in the closure of some agricultural research centers and fewer research positions. At universities, there has been an increased reliance on the support of the federal “tri-council” research agencies for agriculture-related research, specifically grants from the Natural Sciences and Engineering Research
Council of Canada that often requires industry-matched funding. That said, there are some grower groups that provide small funding. Also in 2015 and 2016, several large federal research programs on agriculture commenced thanks to investment through the Canada First Research Excellence Fund. These include initiatives relating to cereal genetics and water conservation led by the University of Saskatchewan and a $76.6M program called “Food from Thought: Agricultural Systems for a Healthy Planet” that focuses on applying Big Data to food production at the University of Guelph. Additionally, there are many universities, colleges, and institutes across Canada that provide training in agriculture-related fields (Table 2). These programs range from undergraduate and graduate programs to more specialized certificates in specific areas.

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<th>Provinces of Canada</th>
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<td>St. Lawrence College</td>
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<td>Quebec</td>
<td>McGill University (McDonald College)</td>
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<td>Université Laval</td>
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<td>Nova Scotia</td>
<td>Nova Scotia Agricultural College (NSAC)</td>
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<td>Yukon</td>
<td>Yukon College</td>
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**Table 2. Institutions that offer training programs in agriculture**

**Inter- and transdisciplinary research, modeling and assimilating technological innovations**

Technological innovations pertaining to food and farming systems in Canada are stimulated and strengthened by inter- and transdisciplinary research across the country. The Enabling Research for Competitive Agriculture initiative has programs such as the Canadian Agricultural Innovation and Regulation Network, which brings researchers together to study the processes of agricultural innovation and proactively engaging government, industry, academia and the public to improve the agricultural innovation system in Canada (CAIRN, 2011). This network is composed of 37 members representing academic, government and private institutions from British Columbia to Nova Scotia as well as the USA and Europe (CAIRN, 2011). There are many successful projects across the country. For example, researchers from Carleton University and Agriculture and Agri-food Canada are collaborating on projects applying nanotechnology methods to create “intelligent” fertilizers that while meeting specific nutrient needs, reduce leaching into watersheds (Steppler & Switzer, 2014). Farmers are also using location technologies based on GPS tracking systems to ensure that the right seed variety is planted in the right location within a field depending on the nutrient and water content of the soil (Steppler & Switzer, 2014). New approaches based on “4R” nutrient stewardship, defined as Right fertilizer at the Right rate at the Right time and in the Right place] have also been popularized.
by the Canadian Fertilizer Institute, which allows farmers to apply fertilizer in variable doses to avoid losses into the water or atmosphere, and at the right time by taking weather conditions into account (Steppler & Switzer, 2014). Crop rotation practices are also allowing farmers to improve fertilizer management and soil conservation, while breaking pest, disease and weed cycles (Steppler & Switzer, 2014). Farmers have used dynamic greenhouse climate control to conserve energy and improve crop quality, while reducing energy consumption in winter (Steppler & Switzer, 2014). Finally, there are many examples of new varietal strains being developed, such as a new variety of cherry, the "Sweetheart", that has the characteristics of self-fertilization and late ripening that can extend the growing season and the fruit harvest. This cultivar has helped increase British Columbia's cherry exports from $500,000 a year in the 1990s to almost $40 million in 2011 (Steppler & Switzer, 2014).

It is also important to note that these innovations invariably require interdisciplinary and intersectoral partnerships and that such partnerships require appropriate financial support and must contain well-developed administration to support extra administrative and collaborative costs associated with collaboration (CFA, 2016). Innovation is not limited to research activities; thus, it is imperative that this continuum develops further in order to thrive in the agricultural sector.
Skilled work force development and Canada's national education system

Canada's system of agricultural education began in New France in 1670 at the Petit Séminaire at St. Joachim (Johnson, 2015; CAHRC, 2016). A program begun by Bishop Laval provided some training in agriculture directed to practical experience on the school farm (Johnson, 2015). By 1874, the first English-language agricultural school was established at Guelph, Ontario (Johnson, 2015). Today, Canada's agricultural education system has expanded to 18 post-secondary institutions, 5 of which offer programs in French (one in New Brunswick, 3 in Quebec, and 1 in Ontario) and the remaining 13 offer programs in English (Johnson, 2015). In addition, there are many courses offered at additional institutions that would serve those that are working in agriculture (for example, plant pathology, entomology). Over time, subjects deemed appropriate to agriculture have also changed significantly. Early schools offered courses in crop and animal production, as well as soil science agricultural engineering and agricultural economics (Johnson, 2015). Presently, more faculties now address the processing of agricultural products as well as primary production. Some include wildlife and forestry as a part of natural resource management training as well as environmental studies (Johnson, 2015). Although Canada's education system has developed over the years, the challenge of spreading agricultural knowledge to the public still remains a problem. Many of today's consumers have little idea as to where their food comes from or how the agricultural sector operates. Therefore, educating people about agri-food systems is imperative. Organizations such as Agriculture in the Classroom, available in seven provinces across the country, help integrate agricultural education into Canada's curriculum. These organizations may also help to encourage students to join the agricultural sector, to offset the shortage of Canadians working in agriculture. The gap between labor demand and the domestic workforce in agriculture has also doubled, from 30,000 to 59,000 in the past ten years and projections indicate that by 2025 the Canadian agriculture workforce will need 114,000 additional workers (FSC, 2011a). Offering farmer-training programs in rural and urban communities along with financial assistance, such as partial student-loan forgiveness, for those going into farming can help decrease this gap.

Funding

In Canada, agriculture falls within a shared federal–provincial jurisdiction and is strengthened by the private sector. Responsibilities mainly rest with federal authorities, while provinces have jurisdiction over agricultural teaching and extension since agricultural research activities vary from province to province and are unique to their region. Federal departments include: Agriculture and Agri-Food Canada; Canadian Food Inspection Agency (CFIA); Health Canada, Environment Canada; Federal Research and Innovations Agency, and National Research Council Canada. The three federal research granting councils (Natural Science and Engineering Research Council of Canada; Canadian Institutes of Health Research; Social Sciences and Humanities Research Council) provide funding to university researchers, some of whom work on subjects related to agriculture, fisheries and forestry (Steppler & Switzer, 2014). The federal government also uses a science-based legislative and regulatory framework to guide the introduction of new products into the market or the development of new methods (Steppler & Switzer, 2014). The federal government participates in and funds research and innovation activities undertaken within the government itself or in partnership with industry and academia (Steppler & Switzer, 2014). The federal government supports stakeholders to facilitate the transfer and adoption of new processes or technologies. The Canadian Agricultural Services Co-ordinating Committee, for example, coordinates research, extension and education services, and is responsible for assessing immediate and future research needs and developing appropriate proposals (Steppler & Switzer, 2014). Provincial and regional committees, and also grower groups, also assess and make recommendations regarding agricultural research and education within
provinces. Thus, the research function is shared among Agriculture Canada and other federal agencies, provincial departments of agriculture, provincial research councils, university faculties of agriculture and veterinary medicine and private industry.

Many key policies have helped shape Canada's public science and technology policy. For instance, in 1989, the Council of Science and Technology Advisors released the Science Advice for Government Effectiveness report, which confirmed the federal role in performing public-good research (AAFC, 2017a). The provincial governments have also implemented an Innovative Community Economic Development Investment Fund, which are funded by individual investors but supported by the provincial government through tax incentives. One project funded in 2011, for example, has led to over $1 million being invested in new or expanding farm and food businesses in Nova Scotia.

Growing Forward 2, a 5 year (2013-2018) policy framework for Canada's agricultural and agri-food sector, is a $3B investment by federal, provincial, and territorial governments and is the foundation for government agricultural programs and services (AAFC, 2017d). Growing Forward 2 focuses on innovation, competitiveness and market development to support Canadian producers and processors with the tools and resources they need to continue to innovate and capitalize on emerging market opportunities (AAFC, 2017d). In terms of government investment in agriculture, however, the trend is toward lower levels of agricultural subsidies, which makes it difficult for individual farmers. More generally, the Canadian government has been focusing less on supporting basic research and production subsidies and more on promoting commercialization and end-product innovation (CFA, 2016). Public and private partnerships also leverage funds and resources and encourage collaboration among government, universities, and industry (CFA, 2016).

3. Resource and Ecosystem Characteristics

Water resources and challenges in Canada
Safe, reliable water supplies are necessary for irrigation, livestock watering and cleaning and processing operations, as well as domestic and potable uses on farms. Although Canada is currently a nation with vast amounts of water resources, there are many challenges. Ponds and dugouts, for example, are reservoirs that are common all over Canada and represent an important water source for rural residents including household use, livestock watering, crop spraying and agriculture (AAFC, 2017a). However, as a result of decomposition, oxygen levels are low in many such bodies, so anaerobic decomposition may lead to changes in the water's color, odor and taste (AAFC, 2017a).

Furthermore, some of the water collected comes from surface runoff, which may contain unwanted materials, including pathogens, plant nutrients, pesticides, decomposed plant material, suspended sediment and contaminants such as fuels and solvents (AAFC, 2017a). Water erosion is another challenge that may lead to the accumulation of sediments, which can cause turbidity in streams and lakes and reduce volumes of lakes and reservoirs (AAFC, 2017a).

Another major challenge is water pollution of local and regional water sources due to the transport of phosphorus and other nutrients from croplands (Natural Resources Canada, 2017). For example, 70% of phosphorous input into the Great Lakes has been attributed to agricultural sources (Bickis, 2016). The rapid expansion of oil sand projects in Canada is also causing strains on freshwater sources and can lead to many ecological and environmental issues.

Soil resources and challenges in Canada
Canada’s land provides many different types of soils suitable for agriculture. Soil degradation, however, remains a challenge, due to excessive rates of soil erosion and other forms of soil degradation such as salinization, acidification, compaction and depletion of organic matter (AAFC, 2017a). Topsoil is most susceptible to
erosion and its loss can lead to soil productivity loss and impact crop yields (Natural Resources Canada, 2017). Previous studies have found that removal of topsoil reduced unfertilized crop yields by 50% for four of six soils in Alberta (AAFC, 2017a). The loss of soils and associated chemicals from cropland can also affect water supplies and can result in increased eutrophication, damaged fish habitats, and reduce water holding capacity and lower crop yields (Bickis, 2016). Erosion also results in patchy crops which are difficult to manage and generally have reduced yield (AAFC, 2017a). Many of these soil problems have also been linked to practices associated with conventional agriculture such as excessive tillage, monoculture row cropping and the declining number of farms with livestock (hence less forage in rotation) (Bickis, 2016).

**Energy challenges**

Canada has large quantities of diverse sources of energy (Figure 1), including hydro, wind, solar, oceans (tidal and wave), biomass, uranium, oil, natural gas, nuclear, coal, oil sands-bitumen and coal bed methane (Environment Canada, 1995). Canada generates an immense amount of hydroelectric power and uranium (accounting for 21% of global production), ranks second in natural gas exports and is the 7th largest oil producer in the world (Environment Canada, 1995; Natural Resources Canada, 2016). Canada also has some of the largest and safest nuclear generating stations in the world and several important nuclear research facilities that contribute to research and development in other sectors such as aerospace, automotive, manufacturing and engineering (Environment Canada, 1995). Despite these large energy sources, energy consumption
is a problem. For example, Canadians spent nearly $135 billion in 2004 on energy to heat and cool their homes and to operate their appliances, cars and industrial processes (Canadian Biodiversity, 2016). Canada adds significantly to global energy consumption, which remains problematic and is projected to increase by 49% over the next quarter century, from 522 EJ in 2007 to 779 EJ in 2035 (Environment Canada, 1995). In Canada, the agri-food sector accounts for approximately eleven per cent of total energy consumption (Environment Canada, 1995). Mechanization of agriculture, the commercial production of synthetic fertilizers and pesticides and the transportation and handling of agricultural commodities for trade lead to high levels of energy use (Environment Canada, 1995). The use of fossil fuels as an energy source to increase agricultural productivity also poses significant challenges with contributions to several environmental problems (Environment Canada, 1995). Therefore, although non-renewable energy sources are becoming difficult to find and extract, new sources of sustainable energy for the future should be a fundamental priority for the country (Canadian Biodiversity, 2016). Continuing research on alternative forms of fuel such as ethanol, biodiesel, natural gas and electricity for transportation can help with energy challenges in Canada (Canadian Biodiversity, 2016).

**Biodiversity conflicts and challenges**

The human footprint continues to increase globally, as a result of our increasing population, urbanization and development, and consumption habits. Canada is home to over 70,000 known species and many others that remain to be discovered (Canadian Biodiversity, 2016). Degradation of ecosystems and habitats due to pollution, climate change, wildlife disease and the introduction of alien species have endangered many species and affected the biodiversity in Canada (Canadian Biodiversity, 2016). Agriculture is one sector that requires significant space, which thus reduces space for wildlife. For example, the agricultural sector has led to decreased intact prairies (13% of the shortgrass prairie, 19% of the mixed grass prairie communities remain, and almost none of the tallgrass prairie community remains) (Natural Resources Canada, 2017). This reduction in available land threatens many prairie species and can lead to the depletion of genetic diversity.

Agriculture in Canada is very important for the country’s economy, can provide many jobs and even has a beneficial role by protecting habitats from urbanization and conserving plant species. Although there are many advantages and contributions from this division, overharvesting and overexploitation in the agricultural sector has had the greatest effect on biodiversity (Canadian Biodiversity, 2016). Humans have been exploiting species in order to maximize short-term profit, which affects the sustainability of many species and leads to the depletion of resources. Other agricultural effects and management practices including habitat alteration, soil erosion, exotic pest introduction and pollution from pesticides and fertilizers have also greatly impacted the ecosystem (Canadian Biodiversity, 2016).
In addition, the need to conserve the genetic diversity of microbes and mycorrhizal fungi is increasingly recognized in Canada, since they play a major role in the diversity of life. Therefore, agricultural applications of fertilizers and pesticides need to be further tested for their effects on biodiversity.

With the loss of biodiversity in Canada, advances in ecological management practices are imperative. Restoration and rehabilitation of species and ecosystems can be extremely expensive and not always successful, but are critical for preventing ecosystem degradation. The AAFC for example has established the Canadian Animal Genetic Resources Program in collaboration with Rare Breeds Canada, which aims to conserve, preserve and increase the utilization of the genetic diversity of plants, animals, microbes and plant viruses of economic importance to Canada (AAFC, 2017b). Canada has also been involved in vast research across the country on this topic and has produced a variety of strategies which include protecting ecologically important natural areas, conserving private land, connecting conservation and resource management strategies through integrated planning and management, reducing human impacts on working landscapes and restoring damaged ecosystems.

Forestry trends and implications
Much of Canada is covered by forests, and much of this land is managed for human use, including for agriculture. Forestry has a major impact on Canada's economy. In 2013, for example, forestry exports contributed $19.3 billion to the net balance of trade (Natural Resources Canada, 2017). Although forestry can have many advantages, forestry practices such as clear cutting can significantly impact the forestry sector that provides resources such as food, fuel and medicine, and that are used for hunting, trapping and gathering. In 2010, for example, an estimated 45,900 hectares were deforested in Canada (Natural Resources Canada, 2017). Deforestation rates for Canada, however, have been declining and are among the world's lowest.

In 2010 for example the rate was less than 0.02% of the forests (Natural Resources Canada, 2017). The healthy, productive and thriving forests in this region highlight Canada as a world leader in sustainable forest management.

Deforestation for pastures and agriculture may be beneficial for the agricultural sector, but it can also be costly to the environment and destroy habitats, affect soil and water quality, influence climatic conditions and decrease biological diversity. Deforestation can also cause the nutrient-rich topsoil to be swept away by rain and wind, which can lead to eutrophication and decrease productivity. This process can affect biodiversity, and reduce carbon storage of forests which can result in net carbon dioxide emissions. Re-growth and tree planting can also often lead to uniformity in density and types of trees, which differ from the original environment. However, a variety of plans have been implemented to continue establishing protected areas in support of conservation of forest biodiversity. The government also has rigorous laws for protecting forests and carefully monitors and regularly publishes reports on deforestation to help manage the health of Canadian forests.

Climate change
Climate change and its impacts are of major concern for Canada, since Canada's rate of warming is approximately twice the global rate. Global warming computer simulation models have predicted different effects for different vegetation zones in Canada, from the shrinking of the tundra zone with increasing temperatures and expansion of the hardwood forest zone in the South. Climate change can also affect Canada's forests and water temperatures and alter the ecosystems. The alteration in temperature, salinity and the availability of nutrients can also affect biodiversity (Steppler & Switzer, 2014). Other ecological changes such as reduction in snow-cover duration, earlier spring thaws and the melting glaciers and ice caps can lead to extreme weather events such as torrential rains and prolonged drought. There are many effects of droughts and floods, including the reduction of crop yields and
pasture productivity, an increase in the growth of unwanted weeds, an increase in the prevalence of pests and pathogens and an increase in energy demands (associated with the manufacture, transport and application of pesticides, for example) (Steppler & Switzer, 2014).

Although many are concerned about the negative impacts of climate change on Canadian agriculture, it is also possible that this sector could benefit from the higher temperatures accompanying climate change. For example, land that is currently not suitable for cultivation may become amenable to crop growth as the growing season lengthens. In addition, the growing season for crops and other horticultural products might be longer and this may increase yields (Steppler & Switzer, 2014). Benefits to livestock production may also be observed in the form of lower feed requirements, increased survival rates of the young and lower energy costs. However, higher temperatures may also result in heat stress for crops (for example, canola). Overall, any benefits in terms of a longer growing season and warming temperatures may be offset if climate change also results in new hydrological and pest patterns, so much remains unknown about how climate change may affect the Canadian farming sector.

In terms of emission, Canada contributes about 2% of the total Global Greenhouse Gas (GHG) emissions, which puts Canada among the highest per-capita emitters (AAFC, 2017a). Many sectors contribute to GHG emissions in Canada, with the energy sectors (consisting of stationary combustion, transport and fugitive emission sources) producing the majority of Canada’s total GHG emissions in 2013, at 81% (AAFC, 2017a). Other sectors also contributed, such as agriculture, industrial processes and product use, and minor contributions from the waste sector. Although agriculture will be greatly impacted by climate change, there is feedback where weather and climate may be influenced by agricultural practices, as the agriculture sector produces high greenhouse emissions. Nonetheless, GHG emissions from the agricultural sector have declined since 2008 and accounted for approximately 10% of total emissions in 2011 (AAFC, 2017a). New management techniques, however, are needed that result in higher carbon sequestration on agricultural lands. Implementing solutions and action toward reducing greenhouse gases is essential and can decrease the impact on the country.

**Building resilience**

Ecological agriculture in Canada is very important to produce foods that respect nature and biodiversity. The partnership and alliance between scientists and farmers is allowing for observations of the landscapes, weather patterns and natural resources to help with broadening diversity of plant genetic resources. Farmers are building production systems that are highly resistant to variability and changing climates. The USC Canada Seed of Survival program launched in 2013, for example, is an initiative for Canadian seed security that works with farmers and researchers to build a more secure and diverse seed supply in Canada (USC Canada, 2016). With proper training, plant selections and conservation, seed security and diversity can be protected and ensure the survival of plants and the planet’s biodiversity.

New techniques and management practices are critical for conserving biodiversity and achieving a resilient and sustainable environment. Agroecological integrity can allow for ecosystems that have high functional diversity and are biologically resilient and capable of adaptation in case of disturbances. Farmers play a major role in adaptive capacity by experimenting with new approaches and techniques in order to diversify cropping systems. The implementation of variety selection and cultivar rotation (which is a traditional move back to past practices) is a simple method to increase overall yield, produce lower levels of GHG emissions and increase genetic diversity in prairie cropping systems in Canada. Using self-regenerating cover crops, crops for weed suppression, grain intercropping, adding woody plants, using green manure and decreasing tillage can also increase resilience and
biodiversity. Farming practices that are more resilient to climate change for example are important to consider and allow for crops that are drought-resistant, less affected by flooding and more resistant to frosts and extreme temperature changes. Dependency on non-renewable resources must also be reduced to increase resilience. By using new approaches and continuing research in this field, Canada is capable of building resilience and increasing food security.

**Future outlook**

Although natural resources are vast in Canada, there are many challenges. Emphasis must be placed on conservation of resources, such as water and soil, and on developing new sources of energy. With new innovative technologies presently available, and collaborations among different government departments, Canada has the potential to use energy more effectively and efficiently. Energy conservation can ensure Canada's energy security and reduce negative impacts on the environment. There is still much uncertainty on the impact of climate change on agriculture. This uncertainty needs to be embraced and more research is needed.

4. **Technology and Innovation**

**Role of Biotechnology**

Agricultural biotechnology is a collection of tools and scientific methods, including traditional breeding techniques, but also including gene
editing and genetic modification, all of which are used to alter and improve the genomics of agricultural plants, animals and microorganisms. In general, therefore, agricultural biotechnology refers to a suite of methods that enable genetic improvements, which are not possible by traditional techniques alone such as breeding, and provides an opportunity to make production more manageable and less expensive.

Agriculture products are regulated by different agencies in Canada. The main regulatory bodies are the Canadian Food Inspection Agency, Health Canada and Environment Canada (CFIA, 2016). The inputs of biotechnology are used in the agri-food sector in a variety of ways to produce superior agricultural inputs and food products. The broad areas of biotechnological applications related to food and nutrition sector include (CFIA, 2016):

1. Veterinary drugs and biologics
2. Bio pesticides
3. Novel bio-fertilizers or fertilizer supplements to improve plant growth
4. Livestock feed and feed additives
5. Novel foods
6. New seed varieties

In the past decade, biotechnology has substantially reshaped the Canadian agriculture and food sector, providing new ways to improve Canadian agriculture and food products with higher yields, superior resistance to pests, insects and adverse environmental conditions and sustainable management practices (see Table 3 for list of genetically modified crops) (AAFC, 2017d; Sparling, 2010). The newer and advanced practices have increased profits, reduced production cost and in some cases, enhanced carbon sequestration and the potential for tradable carbon credits (CFIA, 2016). Genomic technologies applied to the livestock sector have resulted in management practices that reduce inputs, including antibiotics, while maintaining herd health and animal welfare along with productivity.

In addition to genetically modified crops, several other methods are being practiced in Canada. For example, researchers from the Kentville Research and Development Centre have developed a technology called HarvestWatch™ that monitors the chlorophyll fluorescence in stored fruits to calibrate temperature and other environmental factors, such as oxygen and carbon dioxide levels to ensure longer shelf life and product freshness (DeLong et al., 2007).

There have been several improvements in mustard varieties in Canada, such as improved yellow and brown mustard with reduced oil content and increased protein content (AAFC, 2017d). Modern technological approaches have been used to improve AC Gehl, a premium variety of oat being widely cultivated in Canada so that it has twice the protein and high antioxidant content, as well as low glycemic index, making it ideal for people with diabetes (CFIA, 2016).

Other innovative approaches have been initiated in the animal agriculture, dairy and fishery sectors. Some of the examples are listed in Table 1. In addition, novel research initiatives include essential oil-based formulations to help control detrimental gut bacteria, such as Salmonella and Clostridium perfringens in poultry, innovative milk separation techniques for more nutritional dairy products, research and innovation in genetics, nutrition, reproduction and herd management in the beef sector to produce 15 % less greenhouse gas emissions compared to emissions three decades ago (AAFC, 2017d).

The intensity of the research commitments and achievements of Canada are evident from several technologies and intellectual properties available for commercialization from Agriculture and Agri-Food Canada (AAFC, 2017a). These include:

1. Altering Carotenoid Profiles in Plants:
   Method of enhancing carotenoid levels in seeds of plants by altering the expression of the lycopene epsilon cyclase enzyme.

2. Anti-leukemia Plant Extract: Anti-monocytic-leukemia extract that can be produced from vegetables.

3. Altering Seed Oil Content and Oil Quality:
   Novel clone with the DiacylGlycerol.
<table>
<thead>
<tr>
<th>Genetically modified ag-food product</th>
<th>Type of Genetic Modification</th>
<th>Developer</th>
<th>Canadian Food Inspection Agency approval year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>Insect resistance and herbicide tolerance</td>
<td>Syngenta Canada Inc.</td>
<td>Applied for approval in 2016</td>
</tr>
<tr>
<td>Alfalfa</td>
<td>Reduced lignin</td>
<td>Monsanto Canada Inc. and Forage Genetics International LLC</td>
<td>2013</td>
</tr>
<tr>
<td>Apple</td>
<td>Engineered to be non-browning</td>
<td>Okanagan Specialty Fruits Inc.</td>
<td>2012</td>
</tr>
<tr>
<td>Canola</td>
<td>Glyphosate tolerance</td>
<td>Monsanto Canada Inc.</td>
<td>2011</td>
</tr>
<tr>
<td>Corn</td>
<td>Glyphosate herbicide tolerance</td>
<td>Monsanto Canada Inc.</td>
<td>2011</td>
</tr>
<tr>
<td>Cotton</td>
<td>Dicamba and glufosinate tolerance</td>
<td>Monsanto Canada Inc.</td>
<td>2012</td>
</tr>
<tr>
<td>Maize</td>
<td>Herbicide tolerance</td>
<td>Monsanto Canada Inc.</td>
<td>2015</td>
</tr>
<tr>
<td>Maize</td>
<td>Increased ear biomass</td>
<td>Monsanto Canada Inc.</td>
<td>2014</td>
</tr>
<tr>
<td>Maize</td>
<td>Insect resistance and herbicide tolerance</td>
<td>Monsanto Canada Inc.</td>
<td>2014</td>
</tr>
<tr>
<td>Maize</td>
<td>Resist Northern and Western Corn Rootworms</td>
<td>Syngenta Seeds Canada Inc.</td>
<td>2011</td>
</tr>
<tr>
<td>Mustard</td>
<td>Herbicide tolerance using conventional methods (mutagenesis and breeding)</td>
<td>BASF Canada Inc.</td>
<td>2007</td>
</tr>
<tr>
<td>potato</td>
<td>Low Acrylamide Potential and Reduced Black Spotw</td>
<td>J.R. Simplot Company</td>
<td>2015</td>
</tr>
<tr>
<td>Rappeseed</td>
<td>Herbicide tolerance using conventional methods (mutagenesis and breeding)</td>
<td>BASF Canada Inc.</td>
<td>2011</td>
</tr>
<tr>
<td>Rice</td>
<td>Glufosinate tolerant</td>
<td>Bayer CropScience Canada Co.</td>
<td></td>
</tr>
<tr>
<td>Rice</td>
<td>ACCase inhibitor herbicide tolerance</td>
<td>BASF Plant Science</td>
<td>2016</td>
</tr>
<tr>
<td>Soybean</td>
<td>Dicamba herbicide tolerance</td>
<td>Monsanto Canada Inc.</td>
<td>2011</td>
</tr>
<tr>
<td>Soybean</td>
<td>Insect resistance</td>
<td>Monsanto Canada Inc.</td>
<td>2014</td>
</tr>
<tr>
<td>Soybean</td>
<td>Herbicide resistance</td>
<td>Dow AgroSciences Canada Inc.</td>
<td>2014</td>
</tr>
<tr>
<td>Soybean</td>
<td>Herbicide resistance</td>
<td>Syngenta Canada Inc. and Bayer CropSciences Inc.</td>
<td>2014</td>
</tr>
<tr>
<td>Soybean</td>
<td>Increased yield for commercial planting purposes and livestock feed and food use</td>
<td>Monsanto Canada Inc.</td>
<td>2011</td>
</tr>
<tr>
<td>Sunflower</td>
<td>Herbicide tolerance using mutagenesis and conventional breeding</td>
<td>BASF Canada Inc.</td>
<td>2009</td>
</tr>
<tr>
<td>Tomato (Flavr Savr**)</td>
<td>Engineered to slow the rate of ripening</td>
<td>Calgene, Inc.</td>
<td>2013</td>
</tr>
<tr>
<td>Wheat</td>
<td>Bred for herbicide tolerance</td>
<td>BASF Canada Inc.</td>
<td>2006</td>
</tr>
<tr>
<td>Wheat (Durum)</td>
<td>Bred for herbicide tolerance</td>
<td>BASF Canada Inc.</td>
<td>2006</td>
</tr>
<tr>
<td>Eggs</td>
<td>Chicken Eggs Enriched by Dietary Means in Lutein</td>
<td>Maple Leaf Foods Agresearch, SHUR-GAIN</td>
<td>2007</td>
</tr>
<tr>
<td>Eggs</td>
<td>Lutein and Zeaxanthin enhanced Eggs</td>
<td>L.H. Gray &amp; Son Limited</td>
<td>2007</td>
</tr>
<tr>
<td>Eggs</td>
<td>Omega Pro shell eggs containing Lutein</td>
<td>Bumbrae Farms Ltd.</td>
<td>2008</td>
</tr>
<tr>
<td>Salmon (AquAdvantage Salmon)</td>
<td>Genetically modified to grow faster</td>
<td>Aqua Bounty Canada Inc.</td>
<td>2016</td>
</tr>
</tbody>
</table>
O-AcylTransferase (DGAT) enzyme in Canola for altering seed oil content and oil quality.


Prospects for novel high value agricultural products

Adoption of innovation and technologies are routine for agriculture businesses. Canadian agriculture produces commodity products for highly competitive markets, including high-value compounds such as proteins, and other foods such as mushrooms and truffles (Duckett Truffieres, 2013). Health Canada conducts safety assessments for well-characterized organisms before their release to the market (Health Canada, 2015). The enzyme market in North America was worth approximately $5 billion in 2015, with a projected 8% annual growth (see Table 4 for a list of enzymes that are available) (Global Market Insights, 2016).

5. Increasing efficiency of food systems

Prospects for technology based increases in agricultural production Canada's status in world agriculture

Canada has maintained a strong role in international trade of AAP over the past decade. During 1994-2004 and 2004-2014, export sales of AAP from Canada experienced 76% and 96% growth, respectively. Likewise, import sales of AAP more than doubled from 66% and 90% growth, respectively (AAFC, 2016a; Mathews, 2015).

Table 4. The list of permitted food enzymes published by Health Canada

<table>
<thead>
<tr>
<th>Additive</th>
<th>Permitted Source</th>
<th>Permitted in or upon</th>
<th>Maximum Level of Use and Other Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amylase</td>
<td>Aspergillus niger var.; Aspergillus oryzae var.; Bacillus amyloliquefaciens var.; Bacillus subtilis var.; Rhizopus oryzae var.</td>
<td>Ale; Beer; Light beer; Malt liquor; Porter; Stout; Bread; Flour; Whole wheat flour; Cider; Wine; Chocolate syrups; Plant-based beverages; Infant cereal products</td>
<td>Good Manufacturing Practice</td>
</tr>
<tr>
<td>Cellulase</td>
<td>Aspergillus niger var.; Rasamsonia emersonii; Trichoderma longibrachiatum</td>
<td>Distillers' Mash; Liquid coffee concentrate; Natural flavor and color extractives; Spice extracts; Single-strength fruit juices; Tea leaves for the production of tea solids; Bread; Flour; Whole wheat flour, and fruit juices</td>
<td>Good Manufacturing Practice</td>
</tr>
<tr>
<td>Protease</td>
<td>Geobacillus steaerothermophilus TP7; Bacillus licheniformis; Bacillus subtilis Aspergillus oryzae var.</td>
<td>Hydrolyzed animal, milk and vegetable protein; Dairy-based flavoring preparations; Hydrolyzed animal, milk and vegetable protein; Industrial spray-dried cheese powder; Meat tenderizing preparations; Plant-based beverages</td>
<td>Good Manufacturing Practice</td>
</tr>
<tr>
<td>Papain</td>
<td>Fruit of the papaya Carica papaya L. (Fam. Caricaceae)</td>
<td>Ale; Beer; Light beer; Malt liquor; Porter; Stout, Pumperick for the curing of beef cuts</td>
<td>Good Manufacturing Practice</td>
</tr>
<tr>
<td>Trypsin</td>
<td>Pancreas of the hog (Sus scrofa)</td>
<td>Hydrolyzed animal, milk and vegetable proteins</td>
<td>Good Manufacturing Practice</td>
</tr>
<tr>
<td>Lipase</td>
<td>Animal pancreatic tissue; Aspergillus niger var.; Aspergillus oryzae var.; Edible forestomach tissue of calves, lambs; Rhizopus oryzae var.</td>
<td>Dairy-based flavoring preparations; Cheddar cheese; [name the variety] Cheese; Processed cheddar cheese; Hydrolyzed animal, milk and vegetable protein; Hydrolyzed animal, milk and vegetable protein</td>
<td>Good Manufacturing Practice</td>
</tr>
<tr>
<td>Lipoxidase</td>
<td>Soybean whey or meal</td>
<td>Bread; Flour; Whole wheat flour</td>
<td>Good Manufacturing Practice</td>
</tr>
</tbody>
</table>
Interestingly, the trade balance of AAP in the primary agricultural products sector (i.e., exports directly from the farm sector) increased from less than $4 billion in 2004 to more than $16 billion in 2014, while the trade balance in the processed agri-food products sector decreased continuously from $2.5G in 2004 to -$4G in 2014 (AAFC, 2016a). Technologies increasing agricultural production could be used to take advantage of the growth in this sector. Considering the growing global demand for AAP (mostly due to population growth) and also Canada’s natural capabilities (as a result of climate and water sources), Canada can be a leading producer and exporter in this sector. Attention is needed to diversify the AAP portfolio (e.g., varieties of value-added crops for domestic demands and also foreign markets in the mid-term and long term). However, the declining trend of trade balance in the processed agri-food products sector is worrying and indicates that Canada needs to invest in this sector since the value addition and job creation of processed products is generally higher than raw products. Acquiring technologies for efficient production of processed products at competitive prices should be considered in the short term and mid-term.

**Agricultural land use**

As noted earlier, the total land used for agriculture in Canada decreased from 67.5 million hectares in 2004 to 64.8 million hectares in 2014, which accounts for 7% of Canada’s total land area. Despite this slight decrease in land use, an 80% increase was observed in the volume index of AAP during 1997-2014, largely due to the implementation of new technologies and methods. These new technologies have improved the production efficiency and have counterbalanced the need for more lands, but may also decrease the required labor.

For expanding AAP production, the most important infrastructure currently is the availability of appropriate land. Canada’s lands are divided into 7 classes, with class 1 being the best land without limitations for crop production, while class 7 has no capacity for permanent pasture or arable cultivation. The majority of class 1 and 2 lands are already used for agriculture. There are still lands in class 3 which are covered by forest or shrubs and using them for agriculture needs to be thoroughly studied to address environmental impacts. Much of lands with class 4 to 6 are far from existing agricultural infrastructure, such as transportation and processing plants (AAFC, 2016a; CFA, 2016). That said, as new technologies such as vertical farming and other approaches linked with indoor food production become mature, the primacy of land as the main driver of agricultural production may decline in relative importance. Some of these have infrastructure requirements (see list below).

**Postharvest Losses**

Postharvest treatment is important since product deterioration begins after harvesting, and how this is handled determines whether the product can be sold fresh or in processed form (Fan et al., 2014). Storage in an appropriate place that is preceded by cleaning, sorting and packing is an important stage of postharvest treatment processes in Canada due to the long distances between production and consumption points. In addition to distance, there are also constraints of sub-freezing temperatures and high humidity. Many foods can be frozen, but others such as fruits need to be kept in a cold but not freezing atmosphere.

In 2014, Canadians wasted around $31G worth of food: over 30% of fruits and vegetables were rejected by stores due to their less-than-perfect cosmetic appearance, and an additional 47% occurred once they were bought by consumers. This food waste is a dilemma as many Canadians use a food bank to get adequate nutrition (Second Harvest, 2018). In addition to educating the public about such food losses, scientific and technological measures are also needed. For fresh products, techniques for preserving product appearance and increasing shelf life seem to be the straightforward solution in the short term. In addition, genomic manipulations can be used to prevent shape defects and vulnerability to fungi, bacteria, scratches and bruising. For rejected fresh
Farming infrastructure requirements

- **Transportation:** Farm operators should have access to different means of transportation including railways, road, ports in waterways and airports at competitive price.
- **Telecommunications:** Farm operators need landline/cellular phone, fax and internet to communicate with different sectors.
- **Weather networking:** Weather networking stations in remote area are necessary for farm activities.
- **Energy:** Most forms of energy, such as electricity, natural gas, etc., must be available for new agricultural areas.
- **Education and Training:** The education system must have a commitment to develop programs to address the needs of agriculture to instrumental and management skills.
- **Machinery:** New farm operators should be supported to acquire their needed machinery through lease, rental or purchase programs.
- **Technology development:** Due to undeniable role of technology in improving efficiency, troubleshooting and increasing profitability, farm operators need to take advantage of new advances in agricultural technologies.
- **Insurance:** Agricultural industry also has inherent specific risks; therefore, insurance companies should recognize risk management programs developed by the agriculture sector.

Considering the environmental costs of fossil fuels, there is a push to develop cleaner and more renewable sources of energy, such as wind, solar and biofuels. However, the use of these alternative sources also has potentially negative consequences. Biofuel crops, such as wheat, corn and soybeans, are also key sources of food for millions of people, and their use for bio-energy production may decrease their availability as food (Helston, 2012). Furthermore, the land used for this purpose may displace other food-related crops (Helston, 2012). A plant capable of producing 100,000 m³/year of wheat-based ethanol needs approximately 300,000 tons of grain annually, which requires 101,000 hectares of land (ECCC, 2017b). In Canada, corn and wheat are the main crops used for production of bioethanol. In 2006, 7% of the corn and 1% of the wheat produced were used for ethanol production in Canada (Helston, 2012). In 2014, around 6% of the total primary agricultural crop production was consumed for non-food purposes (AAFC, 2016a). To address this conflict, advances in the next generation of fuels, i.e. non-food feedstock such as algae, and cellulosic fuel crops such as switchgrass, may be developed further. Currently, there are many ongoing research projects for production of bio-hydrogen, bio-methanol and bio-diesel from biomass, however, they are not yet comparable with first-generation bio-fuels in terms of production cost (Helston, 2012; Witt, 2015).

Agri-food systems in most countries have integrated and competitive supply chains that are resilient enough to adapt to varying consumer demands and advances in related technologies. These supply chains include input and service suppliers to farms, primary producers, storage, transportation, food and beverage processing plants, wholesalers and retailers of food and foodservice providers. In Canada, one in eight jobs comes from this supply chain and they account for 6.6% of Gross Domestic Product (GDP) (CFIA, 2016).

The National Farmers Union of Canada worries about the effect of powerful lobbies in the food manufacturing sector that keep the price of their products at low levels while input prices at the farm level are constantly increasing.
They are also concerned about the decreasing number of farms and the increasing average age of farmers (see section 1) which indicates an alarming failure of intergenerational transfer (Schutter, 2012).

6. Health Considerations

There are several important health considerations related to agriculture and food security in Canada. First, is the problem caused by foodborne ailments. Annually, more than 4 million Canadians are affected by food poisoning, resulting in 11,600 being hospitalized and 238 deaths. Of the annual total, 2.4 million are due to unknown causes and 1.6 are associated with known bacteria, viruses and parasites. Where the causal agent of food poisoning has been identified, 1 million cases are due to noroviruses, resulting in just under 1,200 individuals being hospitalized and 21 deaths.

The most frequently encountered bacterial agents are *Escherichia coli*, *Campylobacteria jejuni*, *Clostridium botulinum*, *Listeria spp.*, *Salmonella spp.*, *Shigella spp.*, and *Vibrio spp.* However, the health impacts following food poisoning vary depending on the causal agent. Annually, there are about 88,000 cases of *Salmonella*, (25% of all cases of food poisoning in Canada) yet only 925 result in hospitalization and 17 in death. In contrast, of the 175 cases of *Listeria*-associated food poisoning, 150 individuals were hospitalized and 35 died.

The causes of infection are similar in all cases: (i) the consumption of contaminated food/water, often resulting from poor hygiene at processing plants or in the service industry, or
made a series of recommendations to address this issue including: (i) fiscal changes that would ensure those of lower socioeconomic status are able to afford a healthy lifestyle; (ii) taxing sugar-sweetened beverages; (iii) minimizing the use of trans-fats; (iv) updating the national food guide, based on the latest scientific evidence relating to the relative benefits of fresh versus processed foods and noting that in general healthier foods do not require labelling; (v) prohibiting food advertising aimed at children; (vi) nutritional labeling on menus, and (vii) actions at different levels of government to promote physical activity as part of a healthy lifestyle. As a result, in 2016 the federal government announced that it would be revising “Canada’s Food Guide” and public consultations are scheduled for 2017. As noted previously, “evidence-based” is being emphasized when developing this national food guide. This process would have to include an impartial examination of the validity of studies funded by different marketing boards relating to the positive/negative health benefits of certain food products. For example, Kearns et al. (2016) examined the sugar industry’s role in the preparation of scientific publications, propagating the idea that it was dietary fat not sugar that was the major cause of coronary disease.

7. Policy Considerations

Though early Canadian agriculture policy supported farmers through subsidy programs, by 1996, these were reduced in accordance with new World Trade Organization rules that prohibit subsidies giving producers a competitive advantage in global markets (Wipf, 2013). Following a decade of subsidy reduction, expanding farmer debt and ensuing pressure on increase farm subsidies, Canada adopted a single national agricultural policy framework called Growing Forward (GF) that saw significant expansion of farm subsidies (Wipf, 2013). These programs were designed to adhere to World Trade Organization (WTO) trade rules,
aiming to support farmers during periods of low margins without giving producers a competitive advantage in global markets. These programs focused on Business Risk Management (BRM; i.e., safety nets) such as insurance programs covering margin declines or disaster support, and aimed at supporting declining farmer incomes while adhering to trade rules (Wipf, 2013). In many ways, GF represented a return to farm subsidy programming and institutionalized federal disaster assistance for farmers (Wipf, 2013). Since then, the original framework was succeeded by Growing Forward II (GF2) in 2013, and currently, a new framework is being discussed by the federal ministry of Agriculture and Agri-Food Canada (AAFC).

**Growing Forward II**

GF2, Canada's current agriculture and agri-food policy framework, is a three billion dollar investment by federal, provincial and territorial governments that provides the basis for government agricultural programs and services over the five-year period from 2013-2018. The programs focus on economic competitiveness, market opportunities, product and technology innovation and risk management. GF2 includes Business Risk Management (BRM) programs, though with reduced spending compared with the first GF framework and shifted emphasis from BRM farm subsidies to strategic initiatives in the form of Non-Business Risk Management (NBRM) (Wipf, 2013). The NBRM programs include 2 components: one administered by the provincial governments and the other by the federal government. The provincial component, guided by bilateral agreements, includes a $2 billion cost-shared funding commitment (60:40 federal/provincial ratio). It allows the provinces to tailor the programs to local needs within three priority areas: Innovation; Competitiveness and Market Development, and Adaptability.
and Industry Capacity (AAFC, 2017d). The $1 billion federal component includes 3 programs: AgriInnovation; AgriCompetitiveness, and AgriMarketing. These programs emphasize technological development, profitability and market development, respectively, and do little to directly address the needs of Canadian farmers and consumers. Indeed, while recognizing the growing consumer interest in the food system as it relates to issues of health, the environment and animal welfare, GF2 makes no effort to address these issues and instead focuses on addressing public perceptions of industry practices (NFU, 2013).

Critics of the Growing Forward policy frameworks argue that the policy aims to address industry as a whole, rather than the farm sector specifically. Furthermore, they believe that GF focuses almost exclusively on agriculture, rather than a broader suite of issues pertaining to food security, nutrition, equity and access. As a result, GF and GF2 do little to curb what some perceive as anti-competitive actions by agribusinesses, such as corporate consolidation (Winson, 2013; Wipf, 2013). By investing federal dollars in areas favored by agribusiness corporations, the federal government demonstrates a broader commitment to agribusiness (NFU, 2013), but shows little interest in other social or environmental problems linked with agriculture, such as food security. In effect, through GF2 the government invested in (or subsidized) technology developments of agribusinesses including biotechnology and chemical inputs, and this may have further exacerbated the cost-price squeeze as farmers have to pay the increased costs of these new technologies (Gualman, 2011), resulting in fewer, larger farms as farmers seek economies of scale (Magnan, 2011). Farm subsidy programs that emphasize emergency assistance can support farmers through one, or even a few, bad years, but do little to keep farms operating over the prolonged periods of debt resulting from the increasing cost-price squeeze (Wipf, 2013). As a result, Wipf (2013) argues that the policy marks the further neoliberalization of Canadian agriculture by emphasizing market competitiveness, and provides little assurance that farm incomes will recover or improve in the context of the diseases, pests, climate change and trade issues that continue to plague farmers. Further, the framework does not address food security in Canada, despite the nearly 2.5 million food-insecure Canadians and increasing dependence on nongovernmental food-access programs such as food banks (Wiebe & Wipf, 2011). Indigenous peoples are particularly affected by food insecurity, with as much as 75% of the population of some Indigenous communities considered food-insecure, and a loss of access to traditional territories where hunting, gathering, cultivation, fishing and trading provided food prior to colonization (Desmarais & Wittman, 2014).

Ultimately, GF2 does little to address the broad needs of farmers (being limited to safety nets), let alone all actors in the broader food system. In response, a movement to embrace a national food policy that better addresses the needs of Canadians is gaining ground across Canada.

The Need for a National Food Policy

Given the focus of GF2 on the agricultural market, rather than the food system as a whole, scholars and activists agree that there is a need for policy reform (e.g., Blay-Palmer, 2012; Boehm et al., 2011; CAPI, 2009). In particular, arguments for an integrated food policy that reflects the diversity of interests and domains pertinent to the food system (agriculture, health, environment, social and cultural values, and economic development) are growing ground (e.g., FSC, 2015; Kneen, 2011; MacRae, 2011). There are numerous federal departments involved in the Canadian food system, including Agriculture and Agri-Food Canada, Fisheries and Oceans Canada, Environment Canada, Foreign Affairs and International Trade Canada, Health Canada, Industry Canada, and Transport Canada (CAPI, 2009). The lack of clear communication pathways among these jurisdictional divisions, or one particular institutional place to work, create barriers for proactive policy and program solutions addressing the complex and multifaceted issues facing the Canadian food system (MacRae, 2011). For instance, many believe that Canada’s Action Plan for Food Security (CAPFS), developed in
response to the 1996 World Food Summit, was a failure in part due to the lack of interdepartmental coordination (Koc & Bas, 2012).

The complexity of Canadian food policy means that actors seeking to broaden the national policy debate about food are usually most effective when they seek specific policy changes as attempts to create a holistic policy framework for “the food system,” which would include issues ranging from sustainable agriculture through to the need for low-income consumers to obtain healthy nutritious food, have generally failed (Eaton, 2013). The need to be highly knowledgeable about the inner workings of pertinent government departments and programs, and closely communicative with the staff and elected officials in working in them, meaning that any organization working on policy change – generally on shoestring budgets – must focus their goals (MacRae & Winfield, 2016).

Thus far, attempts to create a national food strategy have generally fallen to non-state actors. For instance, the Conference Board of Canada established a national food strategy in 2014 (Conference Board of Canada, 2014). Similarly, Canada has several provincial and federal networks that facilitate collective impact for systemic change. Food Secure Canada (FSC) is one such network operating at the national level, providing both communication opportunities and an institutional setting to engage in broad food-systems work. Since its formation in 2005, FSC has led several campaigns for a national food policy, such as coordinating the development of a national food policy, the People’s Food Policy Project, that was released during the 2011 federal election campaign (FSC, 2011b). The policy is based on a food sovereignty platform, emphasizes community engagement in policy development and provides a holistic perspective on the food system. FSC carried their goals forward during the 2015 federal election, FSC launching Eat Think Vote, a national campaign aiming to bring attention to the need for a national food policy. The campaign garnered support for a national food policy from four of the five main political parties, including the elected Liberal Party. In particular, the Liberal Party promised to develop and fund a national strategy aimed at reducing food insecurity in Canada, in addition to promising support for new farmers and a strong voice for civil society in the development of food policy (FSC, 2015). Developing this policy fell to the Minister of Agriculture, and public consultations are set to begin in 2017 on this important topic.

Upcoming Trends in Canadian Food Policy

Since coming into power in 2015, the Liberal Party has taken a number of new initiatives that suggest the federal government is now taking steps to establish a holistic national food strategy that includes food security as a priority in Canada. For instance, and as noted earlier, Canada’s next agriculture and agri-food policy framework will be launched in 2018. This policy will be based on the Calgary Statement, which highlights key priority areas including: Markets and Trade; Science, Research and Innovation; Risk Management; Environmental Sustainability and Climate Change; Value-Added Agriculture and Agri-Food Processing, and Public Trust (AAFC, 2017d). The Calgary Statement indicates that the next federal agricultural policy framework may proceed with business as usual, but the priority area Environmental Sustainability and Climate Change emphasizes a strong focus on risk management and economic growth, and much like GF2, focuses on addressing public trust in industry practices rather than supporting practices sought by many Canadians (AAFC, 2017d). Concurrently, the Minister for Agriculture has also been tasked with establishing a national food strategy that explicitly includes food security as one of its four pillars.

While the AAFC may continue to maintain its focus on economic growth, Environment and Climate Change Canada (ECCC) has included food in their recent sustainable development strategy, and may provide food policy that addresses the needs of all Canadians. In particular, ECCC launched a Federal Sustainable Development Strategy (FSDS) that was revamped to include a section on food and agriculture following public
consultation (ECCC, 2017a). The long-term goal is similar to the GF frameworks, namely that “innovation and ingenuity contribute to a world-leading economy for the benefit of all Canadians” (ECCC, 2017a, p. 60). Additionally, the short-term milestones emphasize continuing or ensuring compliance with existing programs and regulations, and the highlighted partner is Agrium, a fertilizer corporation. Nonetheless, many of the ‘contributing actions’ include research on environmental challenges pertinent to agriculture, and encouraging sustainable agriculture practices. Further, while the action plan includes $30 million for biotechnology research, it also includes $197.1 million for freshwater and ocean science. An additional short-term goal includes expanding the number of communities eligible for Nutrition North, a subsidy program intended to support food security for Indigenous communities in Canada’s North, (N.B., Nutrition North itself is highly controversial with some experts calling for its complete overhaul (Splawinski, 2015)). Overall, the inclusion of sustainable food in the FSOS provides a hopeful starting point for the development of sustainable food policy in Canada, but some are still worried that it risks being reduced to yet another program that maintains the status quo and continues to prioritize the economy over social and environmental concerns, subsidize agribusiness and does little to alleviate the cost-price squeeze faced by farmers or reduce food insecurity in Canada.

While ECCC provides a more holistic picture of food policy than AAFC to date, it is too early to tell exactly which direction the federal government is going to take with regard to food security. It may be an essential part of the upcoming national food policy, led by AAFC, and provide a strong defining policy framework through which to address the problems of food security in Canada. However this plays out, without a federal department dedicated exclusively to food policy, Canada’s food system risks being regulated by a series of separate policy programs rather than cohesive, integrated programming. Given the interrelated nature of challenges and solutions within food systems, Canada’s federal government must commit to a national food policy that highlights interdepartmental communication and integrates the multifaceted issues relevant to food in Canada.

8. Conclusions

Canada is a vast nation and a major world leader in the agricultural sector and is ranked among the largest agricultural producers and exporters in the world. Due to its geographical location and climate, however, less than 7.5% of Canada’s landmass is used for agriculture. The need to encourage farming is also more important than ever, with less than 2% of the population directly engaged in farming. Therefore, developing policies for growth in farming is a priority.

Canada is also a world leader in agricultural research and has many research and developmental centers across the country. With the unique characteristics of each province in Canada, there are various distinctive areas of focus and research systems. Agricultural education and training in Canada is easily accessible and has evolved and improved over time. Inter- and transdisciplinary research has also increased and led to many programs which aim to proactively engage the government, industry, and the public. Many programs are also available that promote scientific collaboration and innovation in Canada and abroad. Although there are many ongoing research projects and success stories, many challenges remain, such as adequate federal funding for scientific development. Fostering and prioritizing investments and research projects that are more long-term require more funding to sustain a strong Canadian agricultural sector that is internationally competitive. Educating the public and spreading agricultural knowledge is also imperative.

With the increased population growth, urbanization and economic development in Canada, many environmental issues have developed. Canada is a nation with vast amounts of resources, such as water, varieties of soil,
forests and diverse sources and large quantities of energy available for agriculture, and yet future challenges still remain and pose a threat to the agricultural sector. Policies are required that enforce sound farming practices, including the use of pesticides and fertilizers, in order to protect water and soil quality and eliminate sources of contamination. Although Canada is an "energy superpower," energy consumption also needs to be reduced. Additional research on alternative, cleaner forms of fuel is a fundamental priority for the country. Canada is also a world leader in sustainable forest management and has declining deforestation rates, but environmental impacts due to forestry are still affecting soil and water quality, influencing climate change and decreasing biological diversity. Although management plans have been established to protect areas and conserve forests, new policies need to be implemented to increase awareness of the ecological impact due to deforestation and to heighten our resource management capabilities as a whole.

In addition to these obstacles, climate change and associated impacts are major concerns for Canada, especially with a rate of warming that is about twice the global average. Northern communities are particularly vulnerable. Efforts to reduce GHG emissions are a priority, and so is research on climate-change adaptation. Also of concern are impacts of agriculture on natural ecosystems, including inputs of pollutants, introduction of invasive species, habitat fragmentation and spread of pathogens. Research is needed on improved ecological management practices, restoration and the rehabilitation of species and ecosystems. Also, improved public awareness and education of these environmental issues is needed.

Canada is continuously improving its agricultural sector with new technological advancements and novel innovative approaches. There are many genetically modified organisms that have been developed and used. However, the link between scientific discovery and technological development can be more efficient. Other needs for improvement include reduction in food waste, developing an evidence-based national food guide and various health considerations. In particular, the convenience and affordability of high-sugar, low-nutrient processed foods are highly problematic. Policies are continually being modified, although it is not clear whether these policy changes lead to significant improvements on the ground.

Several policy recommendations have been put forward to address food security in Canada. Gaining ground are the need for a living wage to ensure all Canadians can access adequate food (United Nations General Assembly, 2012) and development of social assistance programs that emphasize food access. In addition, urban zoning laws that support gardening on unused land, animal agriculture within city limits and improve access to fresh fruits and vegetables by streamlining approvals for temporary fresh markets in urban spaces can improve access to fresh food for urban Canadians. Given the high rates of food insecurity in Indigenous communities, coupled with historical and ongoing economic and political marginalization of Indigenous communities in Canada, it is particularly important to develop policy that supports Indigenous food sovereignty (United Nations General Assembly, 2012).

Policy recommendations that support farmer incomes include: adjusting policy and zoning to allow value-added businesses such as on-farm processing (Friedmann, 2011); more flexible health and safety regulations that can be met by small- and mid-sized farms (Carter-Whitney, 2008), and ensuring fair returns to farmers through traditional farmer-led marketing boards and policies prohibiting corporate capture of profits through high input costs and low commodity prices (Gualman, 2011). In addition, conserving farmland and improving farmer access to farmland provides a key strategic policy point to reduce the loss of farmers in Canada. Currently, most opportunities for farmers to purchase farmland depend on personal income and financing, while the Canadian government has supported investor buying of farmland, both through marketing to international investors and through the federal crown agency Farm Credit Canada, which has provided multimillion dollar loans to Assiniboia Capital, a company
that purchases farmland on behalf of investors (Gualman, 2011). A number of programs in Ontario may provide starting points for improving farmer access to land, including cooperative ownership, Community Land Trusts and Farmland Conservation Agreements (Learmouth et al.). Further, more financial support for farmers seeking to retire may improve intergenerational transfer of farmland and/or farmland prices at more affordable rates for new farmers, as currently many farmers depend on selling their land to retire, an issue exacerbated by increasing farmer debt and an aging farmer population (Friedmann, 2011).

Policy recommendations to support environmental sustainability of farming emphasize agroecological and organic farming practices. Examples include designing policy tools that recognize the value of ecosystem services provided by agroecological farms and support expansion of on-farm ecosystem services (Power, 2010), setting up of research institutions and farmer-academic partnerships to determine the full costs and benefits of conventional, organic and agroecological farms, and allocate federal funding accordingly (Wittman, Desmarais, & Wiebe, 2011), and increasing funding for organic farms, which would ultimately decrease funding needed for business-risk management programs as organic farmers are able to receive higher returns on their products and may be at lower risk for disaster-induced margin declines when paired with agroecological farming techniques (MacRae, Martin, Juhasz, & Langer, 2009).
Overall, an integrated food policy that considers and integrates all of the issues pertinent to food in Canada is needed to overcome food-related challenges in Canada. To be effective, such a policy must be developed in consultation with all groups affected by food issues in Canada (Wiebe & Wipf, 2001). The Peoples Food Policy Project provides one starting point for such a policy: developed in consultation with organizations and individuals involved in the food movement across Canada, its holistic framework provides policy suggestions around Indigenous food sovereignty, food sovereignty in rural and remote communities, urban food access, agriculture and livelihoods, sustainable fisheries, environmental health, science and technology, trade and aid, health and safety, and food democracy and governance (People’s Food Policy Project, 2011).

References

AAFC, Agriculture and Agri-Food Canada (2016a) An Overview of the Canadian Agriculture and Agri-Food System 2016. Available at: https://caes.usask.ca/members/_pdf/Overview%202016_Final_EN.pdf


AAFC, Agriculture and Agri-Food Canada (2017b) Programs and Services. Available at: http://www.agr.gc.ca/eng/programs-and-services?id=1362675650980


AAFC, Agriculture and Agri-Food Canada (2017d) About Us. Available at: http://www.agr.gc.ca/eng/about-us?id=136069983758


CAIRN, Canadian Agricultural Innovation and Regulation Network (2011) An Enabling Research For Competitive Agriculture Network. Available at: http://www.ag-innovation.usask.ca/


CFA, Canadian Federation of Agriculture (2016). Available at: http://www.cfa-fca.ca/
ECCC, Environment and Climate Change Canada (2017b) Environmental Indicators. Available at: https://www.ec.gc.ca/indicateurs-indicateurs/default.asp?lang=En
FSC, Food Secure Canada (2011b), Resetting the Table: A People’s Food Policy for Canada. Available at: https://interparecs.ca/sites/default/files/resources/2011-04ResettingTheTableAPeoplesFoodPolicyForCanada.pdf
FSC, Food Secure Canada (2015) Federal Elections: 4 Parties are in Favour of a National Food Policy. Available at: https://foodsecurecanada.org/
MacRae, R., Martin, R. C., Juhasz, M., & Langer, J. (2009) Ten Percent Organic Within 15 years: Policy and Program Initiatives to Advance Organic Food and Farming in Ontario, Canada. *Renewable Agriculture and Food Systems*, 24(02), 120.
People’s Food Policy Project. (2011) Resetting the Table: A People’s Food Policy for Canada. Available at: https://foodsecurecanada.org/people-food-policy


Wipf, K. (2013) From Farm Crisis to Food Crisis: Neoliberal Reform in Canadian Agriculture and the Future of Agri-Food Policy (PhD Dissertation), University of Alberta, Edmonton, Alberta

APPENDIX IV: GOVERNING SUSTAINABILITY TRANSITIONS IN THE CANADIAN FOOD SYSTEM: THE CASE FOR A NATIONAL FOOD POLICY COUNCIL

This white paper was submitted to the Standing Committee on Agriculture and Agrifood Canada as part of their consultation on a National Food Policy for Canada. The white paper advocates for a National Food Policy Council to provide an integrated approach to food systems governance in Canada. I was asked to contribute to the Canada chapter based on my knowledge of the GF2 policy context in Canada. I have included it here to provide insight on the political advocacy happening on the ground in Canada, as well as inform the reader on opportunities and ‘paths forward’ for Canadian food policy that supports social and environmental justice.

Publication Details:

The ad hoc Working Group on Food Policy Governance. (October 2017). The Case for a National Food Policy Council. Submitted to the Standing Committee on Agriculture and Agrifood Canada, Ottawa, Canada.
The Case for a National Food Policy Council

Report by the *ad hoc* Working Group on Food Policy Governance

October 2nd, 2017
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Introduction

As the Government develops A Food Policy for Canada to provide an integrated approach to food-systems, governance has emerged as a critical issue. This report was compiled at the request of an informal network of organizations from the food business, farming, civil society, philanthropic and academic sectors interested in national food policy, convened by the Arrell Food Institute at the University of Guelph, the Canadian Federation of Agriculture, Food Secure Canada, and Maple Leaf Foods with additional support from the J.W. McConnell Family Foundation (see contributors in Appendix I).

The report builds on multi-stakeholder discussions that took place in March at the University of Guelph,1 in June at the Canadian Federation for Agriculture,2 at the Ottawa Food Summit convened by Agriculture and Agri-Food Canada, and at a September meeting in Ottawa at which an initial draft of this paper was discussed. The following recommendations are based on food-system governance research from domestic and international jurisdictions. We propose a governance structure that will make adaptive changes to policies, programs and regulations at different levels, over time, and that recognizes the need for a process that goes beyond the initial launch of A Food Policy for Canada.

Our recommendations, after analysis and discussion with stakeholders, are: (1) the creation of a National Food Policy Council as soon as possible; (2) implementation of four short-term recommendations for improving food policy governance in Canada; and (3) consideration of certain longer-term options for institutional support of food policy governance.

1 For more information, see: https://foodsecurecanada.org/sites/default/files/framesetSummaryReport_0.pdf
National Food Policy Council

Above all, however, the analysis and discussion with stakeholders has led the group to suggest the development of a National Food Policy Council, a new independent multi-stakeholder body that convenes actors from across the food system including governments, civil society groups, academic experts, and private-sector stakeholders to provide consistent monitoring, well-researched advice, and broad stakeholder support for A Food Policy for Canada. The National Food Policy Council would proactively engage with these diverse stakeholders to provide ongoing input into the implementation of A Food Policy for Canada. Equally important, it would help build collaboration, elevate and coordinate programs, and drive change among these diverse stakeholders to accelerate progress towards the food policy’s objectives.

The idea of a National Food Policy Council has been raised repeatedly in the consultations referred to above as an important governance innovation that could help resolve two critical problems facing our food system: (1) the lack of a specialized agency to monitor and improve coordination across departments and levels of government involved in food, and (2) a lack of inclusivity in food policy-making. These two limitations in current arrangements compromise policy coherence and effective action and contribute to the growing disconnect between Canada’s food producers and the broader Canadian public. If properly established, such a council can play a key role in setting Canada in long-term direction towards an economically robust, innovative and sustainable food system in which all Canadians can fully enjoy their right to healthy food and in which the industry flourishes. This report provides some reflections on the governance challenges and opportunities before us.

A food policy council is a group of stakeholders from across the food system that meets to discuss and act on food issues. As membership generally includes actors from various sectors of the food system, food policy councils tend to have a more comprehensive and pluralistic view of food policy issues than could individual actors. Food policy councils achieve success by allowing multiple food-systems actors to discuss complex issues, to work together on solutions that take the concerns of various sectors into account, and to find resources through their networks that can push implementation. Since the emergence of the Food Policy Council model as an advisory council to Toronto’s Board of Health in 1991, over 200 Food Policy Councils have been created, mostly at the level of municipal and state (in the US) governments. Multi-sectoral bodies akin to an NFPC have also been established in several countries and have been successful in bringing together diverse actors and providing sound advice (see Appendix II for international examples). Examples of similar kinds of advisory councils have also existed in Canada in other domains (see Appendix III).

Between the council itself, its staff and the working groups or task forces it convenes on priority issues, the NFPC would involve key federal government departments and agencies (eg.
Agriculture and Agri-Food Canada; Health Canada; Environment and Climate Change; Innovation, Science and Economic Development; Employment and Social Development; and Indigenous Services), academics and researchers, food industry representatives from across the value chain (including farmers and fish harvesters), a broad cross-section of civil society, the philanthropic sector and Indigenous peoples’ representatives. It is crucial that membership reflect the Canadian food system’s many actors in order for the NFPC to be effective and to build trust. We envision a tripartite structure in which government, industry and civil society are represented in a balanced way on a Board or Executive governing body, which should be a manageable size. These sectoral leaders would need to have a broad vision of Canada’s food system and capacity to represent the views of their respective constituencies and to report back to them in formal and credible ways. Beyond the considerations of balance and representation, the precise details surrounding membership warrant further research and discussion, notably by deepening the case studies in Appendix III.

If the Council is created as an Act of Parliament, and appointments to the Board were to be made by Governor in Council, the Act could define the scope of criteria that should be considered, and certain safeguards could be built in, as was the case in Rights & Democracy (see Appendix III). Alternatively, the government, along with stakeholders from industry and civil society, could collaborate on the creation of a new institution without an Act of Parliament. In any case, the NFPC should have a well-resourced secretariat, based in Ottawa, with partners and collaborators across the country and would not require a significant allocation of funds from a single source. Conceivably, over time, it could have a funding mandate to support work on the ground that furthers the objectives it seeks to fulfill and could receive contributions from other organizations interested in supporting its mandate.

The Mandate of a National Food Policy Council

The main purpose of the NFPC would be to support the ongoing development and implementation of A Food Policy for Canada with specific attention to creating more cohesion in policy interventions and improved dialogue among a diversity of stakeholders, through research and monitoring, benchmarking and target-setting and convening workshops, conferences and dialogues where cross-sectoral and inter-governmental collaboration could be beneficial.

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3 Two examples of the many food policy councils that include a mix of government, civil society and industry representation are Finland’s National Nutrition Council (https://www.evina.fi/en/foodstuff/healthy-diet/national-nutrition-council/) and Michigan’s Interdepartmental Collaboration Committee (ICC) Food Policy Subcommittee (http://www.michigan.gov/mdard/0,4610,7-125-1572_2886__70869--00.html)

4 The International example that best represents a cross-sectoral council working on the full range of food system challenges is the UK’s Council of Food Policy Advisors, created in 2008 (and disbanded after a change in government in 2011). (https://www.wired.gov.net/wlgw/news-1_ralf0024377Aa69899466882374DA0003C48557OpenDocument)
Specifically, the NFPC could be given the following mandate:

1. Align purpose, expertise and actions to implement *A Food Policy for Canada* across sectors
2. Advise government on critical food policy issues as they emerge while ensuring departments retain independent authority over their mandates
3. Work to build consensus and engagement while fostering efficiencies among diverse stakeholder groups and government actors
4. Provide research and expertise that incorporates data and analysis from across the food system to inform government policy-making
5. Provide regular venues for dialogue and information-sharing, such as web platforms, conferences, workshops
6. Set benchmarks to independently monitor progress on achieving the goals set out in Canada’s food policy
7. Provide support to resource-constrained stakeholders, enabling inclusive participation in relevant food policy discussions
8. Proactively engage stakeholders to facilitate coordination of activities, alignment and accelerate the pace of change towards the objectives of *A Food Policy for Canada*
9. Potentially, given adequate resources and coordinated support from private and philanthropic organizations, fund projects that meet food policy goals

**Rationale**

In recent years, various countries have developed national food policies or strategies designed to address, in a more coordinated and harmonized manner, an array of complex food-system issues (see Appendix II). While the impetus behind each country's national food policy development varies, a common denominator of each of the countries examined is that most have introduced some form of multi-stakeholder and intra-fnter-governmental co-governance mechanisms to assist with implementation, stakeholder engagement and monitoring. Notably, in cases in which inclusive and transparent multi-stakeholder processes do not exist (e.g. Australia and Wales), the result is incomplete and implementation has been contested.⁵

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Canada has potential to show leadership with a fully integrated approach. Canada could be the first major global food exporter to develop an integrated food policy supported by cross-sectoral co-governance mechanisms. This step could give Canada a competitive edge in the world of food trade by focusing policies on the triple-bottom line goals of economic, social and environmental sustainability.

Canadian stakeholders have long discussed various elements of an integrated governance approach, and the Government is already convening 16 departments and agencies as it develops A Food Policy for Canada. If the government fulfills its commitment to deliver a policy statement on food by mid-2016, there will necessarily be many unresolved issues and policy dilemmas that will require further dialogue among stakeholders, and more work, including research, consultation, coordination, program delivery and public education. The time is ripe to work together to produce a broad policy framework that provides cohesion and direction to improve food security, health and safety, environmental sustainability, innovation and economic development – and a governance structure to ensure successful implementation from across society.

National food policy governance is important to various food-system actors for different reasons:

- **Industry actors** across the food-system value chain have long advocated for an interface through which they can engage whole-of-government approaches to explore and understand and address policy issues that extend beyond the domain of any single department. Furthermore, Canada’s agri-food industry stakeholders continue to grapple with the growing distance between the average Canadian and the production of their food. The dialogue among stakeholders involved in national food policy governance presents a potential forum to build common understanding and proactively address public trust concerns.

- **Civil society actors** have critical on-the-ground, evidence-based expertise in health and nutrition, environment, social justice and equity issues, a range of factors that could be better integrated in policy development. Civil society organizations and institutions have had little

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6 Industry has come together over the past two years to put together a steering committee and network of industry stakeholders focused on developing educational materials and messaging to help promote better understanding of the sector. The Canadian Centre for Food Integrity, an independent affiliate of the Centre for Food Integrity in the United States, was also established in 2016 as a resource to empower and support industry stakeholders in ways that earn public trust. Further information available at: [http://www.foodintegrity.ca/](http://www.foodintegrity.ca/)
access to decision-making processes, despite frequently confronting policy barriers that compromise their own effectiveness and regularly contributing to consultations. Their integral participation offers opportunities for the federal government to foster innovation and use its resources more effectively.

- Academic experts also contribute clear, independent, peer-reviewed research across many disciplines to help forecast problematic policy issues, monitor impacts, evaluate programs and ensure that a wide and cross-disciplinary evidence base is consistently informing policy.

- Funders of all stripes are increasingly interested in working with governments, communities, businesses and organizations to make joint investments that use evidence of impact to drive investment decisions.

Context for Food Policy Decision-Making

Canada has many existing ‘decision-making nodes’ based on constitutional authorities, historical precedence, commonly accepted business practices and organizational mandates. The challenge of a coherent national food policy is setting a unifying direction that helps align all of these nodes.

Many organizations already exist to help provide some coordination and alignment. Given the complexity of the food system, however, governance within and across existing nodes is incomplete and coordination often weak. A national food policy sets the stage for progressive alignment of decision-making. Organizations and governments must progressively devote resources and introduce tools to encourage shifts that meet the shared policy objectives (a key feature of successful co-governance arrangements).

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7 Such nodes include Parliament, and provincial and territorial legislatures, self-governing First Nations, and associated agencies responsible to them; Cabinets and cabinet committees; Departments/ministries and agencies; Central coordinating agencies and committees (PMO and premiers’ offices, civil service agencies, interdepartmental committees); FPT bodies (Councils of ministers, councils of civil servants); bilateral and multilateral agreements governing trade and investment as they relate to food; Municipal councils and department; First nations (from local Councils and organizations, to regional bodies such as First Nations Food Security Networks or Indigenous Food Circles, to national organizations) and nation-to-nation relations (legislation, treaties and agreements, co-management arrangements); Private businesses and farms, business associations, farm and commodity groups; Courts and tribunals; Non-governmental organizations and networks at the community, provincial and national levels; Roundtables (including various forms of multi-stakeholder committees and food policy councils)

8 e.g. municipal food policy councils, First Nations councils, farm organizations, commodity groups, business associations, Value Chain Roundtables, FPT agreements (e.g. Canadian Agricultural Partnership), interdepartmental committees, central agencies, Cabinet committees, and House and Senate committees
The proposals in this paper should be seen as part of an ongoing strategy to develop adaptive policy shifts, evaluate effects, and then take next steps. The authors of the proposed model take the view that a national food policy requires a pan-Canadian approach that touches all food-system sectors and decision-makers. In proposing this, we wish to avoid the limitations of the 1977 Food Strategy for Canada, which had national goals but did not actively include the provinces and other stakeholders in the development of the strategy or in commitments to implementation.

This proposal takes into account and reinforces the Government’s existing principles for A Food Policy for Canada, namely that it be: inclusive, participatory, in keeping with reconciliation efforts, collaborative, results-oriented, evidence-based, integrated, enabling of policy coherence (vertically and horizontally), systems-based, adaptable, innovative, accountable and transparent. A key aspect of activating those principles is to ensure that new collaborative structures are established, both across government and extending beyond it. Our proposed National Food Policy Council draws upon these values, as well as the municipal experience across Canada over the past three decades in which all stakeholders are encouraged to contribute experience, knowledge, and resources.

A central question for A Food Policy for Canada is how to govern our food system in a way that meets our social, environmental and economic goals. The policy must build on existing (complex) structures, decision-making nodes and market realities, while fostering a culture of innovation and collaboration that will help deliver action on the vision and priorities identified within it. Whichever priorities are announced, any new governance mechanism will need to show some short-term gains and efficiencies in meeting government goals, and to identify longer-term plans to tackle the more complex problems that will require sustained effort over many years by different actors.

**Additional Recommendations for Improving Food Policy Governance**

Research demonstrates that food policy-making is more effective if an inter-sectoral governance structure such as a food policy council is coupled with inter- or intra-governmental structures. A number of proposals have been developed by the working group, and they should be considered alongside the development of a NFPC. The NFPC could potentially be tasked with developing such recommendations in more detail in the first few years of its mandate.
a. Adapt current interdepartmental mechanisms to create an interdepartmental food policy committee (comprising Deputy Ministers) under Privy Council Office (PCO) leadership (accountable to PCO), with a mandate for joined-up food governance, supported by a food policy secretariat housed within PCO. It could be built on structures created to develop food policy, but should have central government, rather than departmental, leadership: a core goal is to avoid levels and departments of government working at cross purposes, with clear principles and priorities established and agreed upon in A Food Policy for Canada.

   i. **International Precedents:** Ireland’s High Level Implementation Committee and Brazil’s Inter-Ministerial Food and Nutritional Security Chamber

   ii. **Key considerations:** This committee, and the new secretariat, must be closely coordinated with FPT processes, Indigenous consultation processes, and the multi-stakeholder National Food Policy Council.

b. Initiate a Federal-Provincial-Territorial (FPT) process of alignment with the national food policy supported by existing FPT support bodies. Build on existing meetings of ministers (e.g. Agriculture and Agri-Food, Health, Environment and Climate Change) or, potentially, create a new Council of Ministers for Food Policy. Alongside of this structure, a new FPT civil service committee on food policy should be created and existing relevant FPT committees should align with food policy priorities. Given the complexity of the file, a challenge is to identify for both committees the range of participating ministries.

   i. **Key considerations:** At a minimum, we recommend Agriculture and Agri-Food Canada; Health Canada; Environment and Climate Change; Innovation, Science and Economic Development; Employment and Social Development; and Indigenous Services.

c. A Nation-to-Nation/Crown-to-Inuit process on food, between Indigenous peoples and the federal government, which would also involve creating mechanisms for Indigenous participation and input into
local, regional and national food-policy-making bodies. This discussion, and the identification of suitable supports, would also involve, at a minimum, the Assembly of First Nations (AFN), Inuit Tapiriit Kanatami (ITK), the Métis National Council (MNC), the two new federal departments (Indigenous Services and Crown-Indigenous Relations; Health Canada; Agriculture and Agri-Food Canada; Innovation, Science and Economic Development; Environment and Climate Change; and Employment and Social Development.

i. **Key considerations:** This process should be connected to the federal commitment to nation-to-nation relations and reconciliation.

d. **Annual Canadian Food Policy Meeting:** Similar to the Value Chain Roundtable (VCRT) process, the leadership of a NFPC should meet annually with additional key deputy ministers who participate in FPT processes. The meeting would be hosted by the NFPC.

i. **International Precedent:** Brazil’s annual food policy conference between government, industry and civil society actors. **Domestic Precedent:** VCRT All Chairs Forum

ii. **Key considerations:** Ideally, similar meetings would take place down the road within each province among the leadership of a provincial food policy council meeting with key provincial deputies involved in FPT processes.

e. **A food policy evidence centre** to improve the way government and other organisations create, share and use a diversity of high-quality evidence for decision-making related to national food policy.

i. **International Precedent:** Seven What Works Centres in the UK collate existing evidence on the effectiveness of policy programs and practices, produce reports and systematic reviews in areas where they do not exist, assess the effectiveness of policies and practices against an agreed set of outcomes, and share findings in an accessible way.⁹

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⁹ For more information, see [https://www.gov.uk/guidance/what-works-network](https://www.gov.uk/guidance/what-works-network) and Bridging the Gap, a recent Mowat Centre report on designing a Canadian What Works Centre. ([https://mowatcentre.ca/bridging-the-gap/](https://mowatcentre.ca/bridging-the-gap/))
Long-term options

Consistent with related areas and other jurisdictions, these structures and initiatives will need detailed consideration as the governance model develops.

a. **Cabinet Committee on food**: Cabinet committee reconfiguration has historically been used to highlight complex files and political priorities.

b. **Federal Departments of Food** to consolidate functions from many departments. Other jurisdictions have done this, including the UK’s Department for Environment, Food and Rural Affairs.

c. **Canada Food Act** (similar to the Canada Health Act): Given some of the jurisdictional parallels between health and food in Canada, it may be worth in the long term creating a comparable Act that sets out the criteria for participation of all food-system actors in the change process.
Appendix 1

List of contributors

Many individuals contributed to the research, analysis and construction of this report. It is the product of several rounds of drafting, discussion and feedback, and revision and represents the collective expertise of people from a wide range of places in the food system. Organizations are indicated for identification purposes only.

Dr. Peter Andrée | Carleton University
Dr. Patricia Ballamont | Carleton University
Margaret Bancerz | Ryerson University
Ted Bilyea | Canadian Agri-Food Policy Institute
Diana Bronson | Food Secure Canada
Don Buckingham | Canadian Agri-Food Policy Institute
Mary Coulas | Carleton University
Evan Fraser | Arrell Food Institute at the University of Guelph
Beth Hunter | J.W. McConnell Family Foundation
Derek Johnstone | United Food and Commercial Workers
Dr. Mustafa Koc | Ryerson University
Lynda Kuhn | Maple Leaf Centre for Action on Food Security
Dr. Joseph Leblanc | Social Planning Council of Sudbury
Ron Lemaire | Canadian Produce Marketing Association
Tia Loftsgard | Canadian Organic Trade Association
Dr. Rod MacRae | York University
Rory McAlpine | Maple Leaf Foods
Ashley McInnes | University of Guelph
Sasha McNicoll | Food Secure Canada
Mary Robinson | Canadian Federation of Agriculture
Scott Ross | Canadian Federation of Agriculture
Troy Sherman | Canadian Produce Marketing Association
Deborah Stark | Former civil servant
Pat Vanderkooy | Dietitians of Canada
Tülay Yıldırım | Canadian Agri-Food Policy Institute
Appendix II
International cases examined

In recent years, various countries have developed national food policies or strategies designed to address, in a more coordinated and harmonized manner, an array of complex food-system issues (each with different priorities). Notably, the countries discussed here are those that have explicitly developed national food strategies or similar food co-governance structures. Due to time constraints, we have not examined the food governance structures of other major agricultural exporters (with the exception of Brazil and Australia).

- Norway created its National Nutrition Council in 1975 to address two major issues: growing rates of cardiovascular disease within Norway, and the global food crisis of the mid-1970s (Blueprint, 26).
- Brazil developed its National Food and Nutrition Security Policy in 1999 to address poverty and improve the diet, nutrition, and health of the Brazilian population.
- Scotland (2009), the United Kingdom (2010), Wales (2010), Australia (2013), and Ireland (2014) all created national food plans and strategies primarily aimed at growing agricultural exports while concurrently addressing related issues such as climate change. To advance its food policy goals, each country has developed an array of substantive, procedural and institutional policy tools.

Examples of co-governance mechanisms created:

- Finland initially set up a National Nutrition Council in 1936. It was restructured in the early 1980s to better facilitate policy deliberation and coordination. The council has 13 members representing key government departments, as well as representatives from industry, agriculture and consumer organizations. It proposes motions for authorities and undertakes research and reports on efforts by industry and other actors to improve the diet of the Finnish population (Roos et al. 2002).

- Brazil's Inter-Ministerial Food and Nutritional Security Chamber (also known as the Intersectoral Committee for Food and Nutrition) co-ordinates policy across relevant ministries, coordinates with sub-national authorities, and works closely with the National Food and Nutrition Security Council (CONSEA) to turn proposals into policy. One-third of CONSEA's membership comprises high-level government officials responsible for areas related to food security, with the remainder coming from civil society organizations (e.g. non-
governmental organizations, religious institutions, and professional associations) (Leão and Maluf, 2013).

- Norway created its National Nutrition Council in 1975 to address growing rates of cardiovascular disease in the context of a growing global food crisis (Blueprint, 26). As in Finland, the main purpose of the council is coordination and deliberation, and it has no formal executive power (Millo 1981; Klepp and Forster, 1985).

- The UK created a cross-sectoral 15-member advisory ‘Council of Food Policy Advisors’ in 2008. The Council included a secretariat (established under the Department of Environment, Food and Rural Affairs) with reporting functions. The Council played a key role in developing and implementing a whole-of-government food strategy document ‘Food 2030’, released in 2010 until a change of government.

Examples of limited co-governance mechanism development or implementation:

- Australia’s proposed National Food Plan (2013; never implemented due to a change in government) was intended to work with the states and territories on food-related policy through traditional mechanisms, including the Council of Australian Governments Legislative and Governance Forum on Food Regulation, as well as the Standing Council on Primary Industries. Australia also had a consultative/stakeholder engagement body (Australian Council on Food) made up mostly of industry representatives. Further, Australia’s high-level National Food Policy Working Group, designed to serve as a conduit between the food industry and government, had 10 of 13 members coming from industry. No parallel mechanism was created for engaging with civil society stakeholders (Blueprint, 29). The Australian government was challenged at multiple stages in the development of its food policy by civil society organizations who argued that its processes lacked inclusion and transparency (Carey et al. 2015).10

- A Food Strategy for Wales (2010) identifies “building connections and capacities” across the food system as a central priority. Food for Wales proposes that “a key feature of the Strategy is to encourage integration of disparate strands of food policy (such as nutrition, food hygiene, and food production) and to link food policies with other key initiatives (such as waste and energy minimisation, sustainable tourism and transportation)” (Food for Wales, 68). Marsden et al. note that despite its ambitious governance agenda, Welsh efforts fall short in five areas: a) engaging with stakeholders from across the agri-food system; b) using available policy levers; c) driving innovation for systemic and adaptive change; d) creating

10 This was one of the factors that led civil society organizations in Australia to form the Australian Food Sovereignty Alliance and develop The People’s Food Plan (2012).
space for challenge and reflection; and e) focusing on the key dimensions of vulnerability in
the Welsh food system (Marsden et al. 2016, p 10). A similar situation exists in Ireland (High
Level Implementation Committee), Scotland (Food and Drink Leadership Forum).

References Cited:

Carey, R., M. Carahe, M. Lawrence, & S. Friel, 2015 Opportunities and Challenges in
developing a Whole-of-Government National Food and Nutrition Policy: Lessons from
Australia’s National Food Plan, 19 Pub. Health Nutrition 1. 1-12 DOI: 10.1017/
S1368980015001834 .

Leão, Marília and Renato S. Maluf. 2013. Effective Public Policies and Active Citizenship:
Brazil’s Experience of Building a Food and Nutrition Security System 15, https://www.oxfam.org/

Klepp, Knut-Inge and Jean L. Forster, 1985. The Norwegian Nutrition and Food Policy: An
Integrated Policy Approach to a Public Health Problem, 6 J. of Pub. Health Pol’y. 447, 449

Marsden, T., K. Morgan and A. Morley. 2016. Food Policy as Public Policy:A Review of the

Nancy Milio, 1981. Promoting Health Through Structural Change: Analysis of the Origins and

Roos, G, M. Lean and A. Anderson. 2002. Dietary interventions in Finland, Norway and
Appendix III
Domestic models examined (re: National Food Policy Council structure)

Canada has a variety of institutional models that can provide inspiration and lessons for the establishment of a National Food Policy Council, depending on the precise mandate proposed. Research has shown that the most effective models have a direct link to government but a capacity for independent action that is not contingent on government agreement. The examples below are not an exhaustive list but illustrate options for how to approach a new institution like a National Food Policy Council and how it can accomplish core functions such as (1) providing independent advice to government, (2) sharing information from different fields and disciplines (e.g. health and agriculture); (3) brokering consensus among diverse stakeholders, (4) independent research and monitoring that provide valuable data to assist with policy development, (5) building public support for policy goals.

Rights & Democracy (officially the International Centre for Human Rights and Democratic Development):

Rights & Democracy’s President and board members were appointed by order in council in consultation with opposition parties. Rights & Democracy reported to Parliament on an annual basis and was allocated budgets for five-year terms in order to ensure its independence (undermined in the latter years and eventually closed by the federal government). Every five years an independent evaluation was done. Its budget started at $1 million per year and expanded to $5 million over the first five-year term. The failure to significantly diversify its funding (in contrast to IIID), and changing government priorities with regards to its mandate, eventually compromised its independence and efficacy. Rights & Democracy’s Board had the power to name three representatives.

International Institute for Sustainable Development (IISD):

IISD received initial core funding ($25 million over five years) from Environment Canada, the Canadian International Development Agency and the Province of Manitoba to plan and establish operations. IISD is well-regarded around the world and is heavily invested in UN processes.
**Canadian Advisory Council on the Status of Women (CACSW):**

CACSW started as an independent advisory group with access to Parliament, but, over time, was taken over by government (e.g. publications were initially independent and peer-reviewed, but the Ministry of Employment and Immigration began to cull and even change the work prior to publication, without always consulting the researchers responsible for the work). Doris Anderson, former president of CACSW, stated that an independent council should not report to a cabinet minister.

**Value Chain Roundtables (VCRTs):**

Currently, VCRTs support communication between industry and relevant government departments. For instance, an annual All Chairs Round Table includes the deputy minister from AAFC, deputy heads from other federal departments and agencies, and senior government officials from multiple departments. The Bee Health Roundtable is probably the most emblematic model for a National Food Policy Council, given representation from across the supply chain, governments and an NGO, and a mission beyond just production. Interviews suggested that equal representation for non-profits, alongside government and industry, could support more diverse stakeholder representation.

**Social Union Framework Agreement (SUFA):**

SUFA was meant to clarify roles and responsibilities of jurisdictions in health care, social services, post-secondary education, social assistance, and training. It was designed to set new rules for federal spending power and establish rules for cooperation and conflict in social policy. However, several analysts believe that it did not fuel effective FPT collaboration as the federal government continued to introduce social policy initiatives that are exclusively provincial jurisdiction by using its spending power and not consulting with provinces.

**National Round Table on the Environment and the Economy (NRTEE):**

The NRTEE was an advisory and research council that advised the federal government.

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on the intersection of environmental and economic issues, established as a federal government agency through the National Round Table on the Environment and the Economy Act, passed in 1993. It produced research reports, brought together diverse experts from various environmental sectors, and provided policy advice to government. The NRTEE was "the only national organization with a direct mandate from Parliament to engage Canadians in the generation and promotion of sustainable development advice and solutions".

NRTEE members were appointed by the federal government to serve for terms that lasted up to three years. Its members represented business, academia, environmental organisations, and labour and public policy organisations. The members were supported by staff managed by a President and CEO appointed by Governor in Council. The NRTEE’s Secretariat was responsible for the oversight of the research suggested by its membership and for the administration and communications work of the Round Table. It reported to Parliament through the Minister of the Environment. NRTEE funding was cut relatively easily because it did not have grassroots support.

**Commissioner of Environment and Sustainable Development (CESD):**

Part of the Office of the Auditor General (OAG), this position could be a model for monitoring functions related to food policy implementation. The OAG (and the CESD) reports to Parliament, has a significant budget allocated by Parliament and significant legislative authority to examine departmental spending. Unfortunately, however, the position is limited by that same legislation to assess value for money, and does not have the authority to examine policy per se. Historically, a firewall has been constructed between the CESD and environmental groups which would be a limiting factor for the food policy case. Additionally, the emphasis is placed on federal government affairs rather than the entire policy network.
APPENDIX V: SURVEY
Consent

Thank you for considering this invitation to participate in a research project exploring the types of alternative food initiatives in Canada. The main investigator is Ashley McInnes, a graduate student in the Department of Geography at the University of Guelph. The academic advisor for the study is Dr. Evan Fraser. Results will contribute to the completion of the student researcher’s (Ashley McInnes) PhD program. This research project has been sponsored by the Social Sciences and Humanities Research Council of Canada.

This survey should take approximately 20-30 minutes to complete.

You have been emailed a copy of the consent form.

By clicking "yes" below, I acknowledge that I have read the information provided in the consent form, any questions have been answered to my satisfaction and I agree to participate in the study.

Yes

Organization Contact Information

Please provide your organization name, as well as your name, job title and preferred contact information. These identifiers will allow the student researcher (Ashley McInnes) to contact participants for voluntary follow-up.

This information will not be used in the final results. The data will be anonymized and only aggregate results will be presented in the report. Please note that confidentiality cannot be guaranteed while data are in transit over the internet.

Organization Name

Organization Location (City, Province)
Participant Name

Job Title

Preferred Contact Information
- Email

Preferred Contact Information
- Telephone with area code

Organization Description

What type of organization do you work/volunteer for?

- Non-profit
- For-profit
- Cooperative
- Government Institution
- Other (e.g. partnership such as government and community group, government and business, or community group and business) (please describe)

How many years has your organization been in operation?

Do you have paid staff?

<table>
<thead>
<tr>
<th></th>
<th>Please indicate the number of staff. Please enter 0 if you do not have paid staff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
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<tr>
<td>Part-time</td>
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</table>

Do volunteers play a role in the organization? Please indicate how many hours volunteers donate per week.

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Are you a member of any of the following networks or groups? (Select all that apply)

- Alberta Farmers’ Market Association
- Alberta Food Matters
- British Columbia Association of Farmers’ Markets
- British Columbia Food Systems Network
- Farmers Markets Ontario
- Sustain Ontario
- Farmers’ Markets of Nova Scotia
- Nova Scotia Food Security Network
- Food Secure Canada

**Organization Visions and Values**

Some public figures have listed the following as ‘problems’ in the Canadian food system. Please rank the following in order of most problematic (1) to least problematic (up to 8) in the first column, noting those not considered problematic at all in the second column.

<table>
<thead>
<tr>
<th>Items</th>
<th>Problem Ranking</th>
<th>Not at all problematic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate control</td>
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<tr>
<td>Disconnection between producers and consumers</td>
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<td>Low access to healthy food for low-income consumers</td>
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<tr>
<td>Low cultural value placed on food</td>
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<tr>
<td>Environmental degradation</td>
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<tr>
<td>Low value placed on farming</td>
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<tr>
<td>Market-friendly government policies (e.g. Free Trade Agreements)</td>
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<tr>
<td>Other (please describe)</td>
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</table>

How important are the following characteristics of a sustainable food system as defined by your organization?
According to your organization, how important are the following actions for creating a more sustainable food system? You do not need to confine your responses to activities with which your organization is engaged.

<table>
<thead>
<tr>
<th>Environmental sustainability</th>
<th>Not at all Important</th>
<th>Very Important</th>
<th>Neither Important nor Unimportant</th>
<th>Very Important</th>
<th>Extremely Important</th>
<th>Unspecified</th>
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<tr>
<td>Local food systems</td>
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<td>Participatory democracy</td>
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<td>Resource equity (e.g. land, seed, water)</td>
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<td>Close links between producers and consumers</td>
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<td>Social safety nets (e.g. food banks, food stamps)</td>
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<td>High food production</td>
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<td>Biotechnology</td>
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<tr>
<td>Mainstream niche markets (e.g. Organic, Fair Trade, Local)</td>
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<tr>
<td>Fair compensation for production and labour</td>
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<tr>
<td>Market regulations emphasizing social and environmental protection</td>
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<td>Market-friendly regulations (e.g. Free Trade Agreements)</td>
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<td>Other (please describe)</td>
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Farmland preservation initiatives
Agricultural research
Political advocacy
Consumer education/ awareness/ conscious raising
Producer education/ awareness/ conscious raising
Other (please describe)

According to your organization, how important are the following governmental policies for creating a more sustainable food system?

<table>
<thead>
<tr>
<th>Integrated federal and provincial food policy</th>
<th>Not at all Important</th>
<th>Very Unimportant</th>
<th>Neither Important nor Unimportant</th>
<th>Very Important</th>
<th>Extremely Important</th>
<th>Unsure</th>
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<tr>
<td>Incentives for green practices (e.g. payments for ecological production practices)</td>
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<tr>
<td>Incentives for socially just practices (e.g. tax incentives for fair trade initiatives)</td>
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<tr>
<td>Strict environmental regulations (e.g. restriction of chemical inputs on farms)</td>
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<tr>
<td>Strict social regulations (e.g. fair compensation for production/labour; inclusive public decision-making)</td>
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<td>Prohibiting or dismantling corporate monopolies</td>
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<tr>
<td>Trade liberalization and support for export markets (e.g. international trade agreements such as NAFTA)</td>
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Based on your understanding of Canadian food policy, how likely do you think the following policies are to be implemented?

<table>
<thead>
<tr>
<th>Policy</th>
<th>Extremely Likely</th>
<th>Likely</th>
<th>Neutral</th>
<th>Unlikely</th>
<th>Extremely Unlikely</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated federal and provincial food policy</td>
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<tr>
<td>Incentives for green practices (e.g. payments for ecological production practices)</td>
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<td>Incentives for socially just practices (e.g. tax incentives for fair trade initiatives)</td>
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<td>Prohibiting or dismantling corporate monopolies</td>
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<td>Trade liberalization and support for export markets (e.g. international trade agreements such as NAFTA)</td>
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</table>

How much can problems in the Canadian food system be attributed to each of the following groups?

<table>
<thead>
<tr>
<th>Group</th>
<th>Not at all Responsible</th>
<th>Slightly Responsible</th>
<th>Somewhat Responsible</th>
<th>Mostly Responsible</th>
<th>Completely Responsible</th>
<th>Unsure</th>
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<tbody>
<tr>
<td>Municipal governments</td>
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<tr>
<td>Provincial governments</td>
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<tr>
<td>The federal government</td>
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</tbody>
</table>
Organization Goals and Activities

What is the primary focus (goal) of your organization? (Rank top 3 in order of importance)

- Environmental sustainability
- Social justice
- Economic development
- Viable farm income
- Food access
- Diet and health
- Consumer education (e.g. school programs; community kitchens)
- Consumer awareness (e.g. promotion of local markets)
- Producer education or training
- Political change
- Other (please describe)

Over the past 2 years, how frequently has your organization engaged in each of the following activities?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Less than Once a Month</th>
<th>Once a Month</th>
<th>Weekly</th>
<th>Daily</th>
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</thead>
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</table>

Please provide a profile of your market/distribution service

| Number | Approximately how many weeks are you in operation each year? |
| Number | Approximately how many producers utilize the distribution service/ market each week? |
| Number | Approximately how many consumers utilize the distribution service/ market each week? |

Which of the following policies or guidelines does your distribution service/market have? (Select all that apply)

- [ ] Priority (market access) for locally produced food
- [ ] Priority (market access) for environmentally friendly production methods (e.g. organic, agroecological)
- [ ] Priority (market access) for small- or mid-scale farmers
- [ ] Labelling or indication of resale products (e.g. non-producers selling food purchased from wholesale outlets)
Improving food access for low-income or marginalized consumers

None of the above

Please briefly describe the focus of your research programs.

Which of the following policy goals does your organization's activities work toward? (Select all that apply)

Reduce/eliminate government interventions in the market
Local procurement
Poverty elimination
Gender equity
Farmworker rights
Indigenous agricultural capacity
Local/regional policy councils
Support for new farmers
Support for small-scale farmers
Participatory democracy/inclusive public consultations
Environmental incentives (e.g. payments for ecosystem services)
Environmental regulations (e.g. restriction of chemical inputs on farms)
Resource equity (e.g. land, seed, water)
Incentives for socially just practices (e.g. tax incentives for fair trade initiatives)
Student nutrition programs
Other (please describe)

Which of the following consumer education/awareness/conscious raising activities does your organization engage in? (Select all that apply)
Student nutrition programs
☐ Community health/nutrition programs
☐ Role of science/technology
☐ Value of food
☐ Environmental impacts of conventional food production
☐ Food safety
☐ Knowledge networks or coalitions
☐ Promotion or advertisement of local markets
☐ Other (please describe)

Please briefly describe the focus of your producer education initiatives

Which of the following groups has your organization pressured or targeted for engagement (e.g. outreach or lobbying to change practices) in the past 2 years? (Select all that apply)

☐ Municipal governments
☐ Provincial governments
☐ The federal government
☐ Transnational corporations
☐ Small- and medium-sized agribusinesses
☐ Supermarkets
☐ Local markets such as farmers’ markets
☐ Producers or producer groups
☐ Consumers
☐ Environmental groups
☐ Social justice groups
☐ Our organization has not done any outreach or lobbying
☐ Other (please describe)
Which of the following groups has your organization partnered with to implement projects in the past 2 years (e.g. partnered on grant applications, or planning or implementation of activities or programs)? (Select all that apply)

- Municipal governments
- Provincial governments
- The federal government
- Transnational corporations
- Small- and medium-sized agribusinesses
- Supermarkets
- Local markets such as farmers’ markets
- Producers or producer groups
- Consumers
- Environmental groups
- Social justice groups
- None of the above
- Other (please describe)

How important do you think each of the following media and documents have been in helping your organization develop its goals?

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Not at all Important</th>
<th>Very Important</th>
<th>Neither Important nor Unimportant</th>
<th>Very Important</th>
<th>Extremely Important</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada’s Action Plan for Food Security</td>
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<tr>
<td>Growing Forward Agricultural Policy</td>
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<tr>
<td>Framework by Agriculture and Agri-Food Canada</td>
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<tr>
<td>Academic and popular books such as The Omnivore’s Dilemma by Michael Pollan or The 100 Mile Diet by Smith and McKinnon</td>
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<tr>
<td>Publications from Via Composting and the</td>
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</tbody>
</table>

https://sognos.lib.eu.qualtrics.com/ControlPanel/Ajax.php?actions=GetSurveyPrintPreview&T=3mgsnkOLh97RSPG4YtvonSxM
International Policy Committee on Food Sovereignty
Resetting the Table – A People’s Food Policy for Canada
Other (please describe)

Which of the following terms most accurately describes the work of your organization?

- Food Security
- Sustainable Agriculture
- Food Justice
- Food Sovereignty
- Food Enterprise
- Local Food
- Other (please describe)

Funding Sources

For 2014, roughly estimate what percentage of your funding came from the following sources (please report in percentages % and ensure total sums to 100%)

- Grants
- Donations
- Loans/lines of credit
- Private investment
- Co-operative member equity
- Revenue

Total

To the extent that you are comfortable, please briefly indicate the source of these funds (e.g.
<table>
<thead>
<tr>
<th>grant name, institution</th>
<th>Grant Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donations</td>
<td></td>
<td></td>
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<tr>
<td>Loans/lines of credit</td>
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<tr>
<td>Private investment</td>
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<tr>
<td>Co-operative member equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
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</tbody>
</table>

Are there any other comments that you would like to make?

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Survey Powered By Qualtrics
APPENDIX VI: INTERVIEW GUIDES

P2C Staff Interviews

Personal motivations and thoughts

1) Can you tell me about your position at P2C?
2) How did you become involved in P2C?
3) Do you consider your organization to be a part of a broader food movement?
4) In your personal view, what are the main challenges that can be addressed through your work?
5) In your personal view, how would these challenges be best addressed?

Organization goals and projects

6) Broadly speaking, what are the main goals of your organization?
7) Can you tell me about the projects that your organization is working on?
8) Do you have any project partners?
9) What have been the effects/successes of your work?
10) What have been the main challenges in achieving your goals?

Operations

11) What is your annual budget?
12) What are your main funding sources?
13) How many staff work for P2C?
14) Do you have any volunteers?
15) Do you have an annual report that I could review?
P2C Partner Interviews

1) Tell me about your work
   a. Can you tell me about your position at INSERT ORGANIZATION?
   b. Broadly speaking, what are the main goals of your organization?

2) Can you tell me about your partnership with P2C?
   a. How did you become involved with P2C?
   b. Who approached whom?
   c. How long have you worked together?
   d. How do you operate together/how do you split project tasks?
   e. What are the biggest challenges in working together?
   f. What are the biggest successes in working together?

3) Can you tell me about the projects that you are working on with P2C?
   a. What are the project goals?
   b. Would you say you and P2C have similar goals within the project?
   c. What have been the effects/successes of your work?
   d. Do you think that your partnership was important in achieving these successes?
   e. What have been the main challenges in achieving your goals?

4) Do you plan to continue collaborating with P2C when this project is completed?

5) Would you recommend other organizations to partner with P2C?

6) Do you have any final comments or questions?