A Food Politics of the Possible? Growing Sustainable Food Systems through Networks of Knowledge

Alison Blay-Palmer, Roberta Sonnino, Julien Custot

Abstract: There is increased recognition of a common suite of global challenges that hamper food system sustainability at the community scale. Food price volatility, shortages of basic commodities, increased global rates of obesity and non-communicable food-related diseases, and land grabbing are among the impediments to socially just, economically robust, ecologically regenerative and politically inclusive food systems. While international political initiatives taken in response to these challenges (e.g. Via Campesina) and the groundswell of local alternatives emerging in response to challenges are well documented, more attention is needed to the analysis of similarities between community approaches to global pressures. While we are not suggesting the application of a template set of good practices, the research reported in this paper point to the benefits of both sharing good practices and enabling communities to adopt good practices that are suited to their place-based capacities. The work also suggests that sharing community-derived good practices can support and reinforce global networks of sustainable community food systems, foster knowledge co-creation and ultimately cement collective action to global pressures. In turn these networks could enhance the sustainability and resilience of community food systems and facilitate wide scale food system transformation.

Key words: food, sustainability, collective, neo-liberalism, place, community, transformation

Abbreviations

CSA	Community Supported Agriculture
FAO	Food and Agriculture Organization
FSRN	Food Security Research Network
LLF	Lanark Local Flavour
MST	Movimento dos Trabalhadores Rurais Sem Terra (Brazil's Landless Workers Movement)

NGO	Non-governmental organization
SoFS	System of Food Systems
SoS	System of Systems
SoSFS	System of Sustainable Food Systems
UN	United Nations
WUF	World Urban Forum

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Introduction

This paper examines how to build more robust, collaborative food networks that produce food systems that support social justice, ecological regeneration, are democratically inclusive and contribute to local economies (Guzman and Martinez-Alier 2006; Morgan 2010; Holt Giménez and Shattuck 2011; Marsden and Sonnino 2012; Levkoe and Wakefield 2014). As so many

researchers have argued, global corporate food regimes continue to increase the numbers of people who suffer from food insecurity and food-related disease, foster the concentration of wealth and power, food price volatility and commodity speculation. Food systems are compromised through climate change, food waste, philanthropy capitalism, food-for-fuel, free-market trade and land grabbing (Friedmann 1993; Morgan and Sonnino 2010; Holt Giménez and Shattuck 2011; Akram-Lodhi 2012; Borras and Franco 2012; Lappe et al. 2013; Clapp 2014). Political actions at multiple scales resist this global food system through diverse initiatives. These include, for example, international engagement such as the Via Campesina's involvement in both the International Planning Committee on Food Sovereignty and the Food and Agriculture on World Food Security, the Latin American Congress of Peasant Organizations; regional changes and even upheaval with food insecurity as one impetus for the Arab Spring; and, at the municipal scale, the establishment of a growing number of food policy councils (Blay-Palmer 2009; Guzman and Martinez-Alier 2006; Holt Giménez and Shattuck 2011; Clapp 2014). However, while extremely important, these are disconnected initiatives that have not yet resulted in system change. What we explore in this paper are opportunities to identify and build common ground for enhanced knowledge sharing and networks. To this end, we focus on the *proces*s of change by raising two main questions: first, do the common pressures from the global food system create shared challenges at the community and regional scales? And, second, could these commonalities result in good practices that, if shared, would create the basis for solidarity and accelerated sustainable food system transformation? We do not suggest developing a template response to global pressures that all communities would adopt, rather a suite of options communities could use to cherry-pick the solutions best suited to their communities. This paper takes a preliminary step towards answering these questions with a view to opening up a discussion about community-led initiatives as one opportunity to foster networks of regional "communities of food" practice (Waddell 2005; Friedmann 2007; Guzman and Martinez-Alier 2006; Shove, Pantzar and Watson 2012). The outcome envisioned in this paper is that networks founded on practical common interests could help to enhance resilience and bring about broader food system transformation.

Theoretically, we draw from the literature on social capital, networks, social movements and Systems of Systems to explore the potential capacity for good practices to support and reinforce global food networks, foster knowledge sharing and co-creation, and ultimately

facilitate what Gibson-Graham (2006) have called a "politics of the possibile" (see also Massey 2005; Olson and Worsham 2007; Levkoe 2011; Holt- Giménez and Shattuck 2011; Zizek 2012). Central to the argument is the idea that knowledge sharing could help to cement a collective response to global pressures, enhance the sustainability and resilience of communities and their regional food systems, and ultimately facilitate wide scale food system transformation (Dahlberg 1994; Hipel, Fang and Heng 2010; Holt-Giminez 2011; Davoudi, Brookes and Mehmood 2013; Blay-Palmer et al. 2013a; Nelson and Stroink 2013).

The impetus for this paper emerged from insights from two research initiatives. The first, a session that the authors led at the 2012 United Nation's Habitat World Urban Forum VI (WUF-VI) on the potential for more sustainable urban-rural linkages and, second, from extensive research into community food systems in Canada. The first event, part of the WUF-VI conference and titled "A Conversation about Linking Farmers to Local Buyers: Opportunities, Challenges and Successes," involved more than 25 policy-makers, practitioners and academics all working, in different capacities, to establish more sustainable socio-economic linkages between cities and their surrounding rural areas. The event provided insights into how global pressures are experienced in local communities. The second point of reference for this paper is a multi-year Canadian project that includes extensive and intensive community research on the variety of strategies that have been devised and implemented for enhancing sustainable food communities in the face of global pressures. The proposed solutions developed at the UN event were notably similar to research results in the Canadian work and so provoked our reflections into the merit of sharing local good practices as the basis for network and solidarity building presented in this paper.

In the first part of the paper, we provide a theoretical context for the research with particular attention to the importance of scale and the role of networks, social capital and "Systems of Systems" (SoS). We then explore the potential for Gibson-Graham's (2006) "politics of the possible" as a pathway to build more robust sustainable food systems (Ballamingie and Walker 2013). This conceptual framing provokes questions about common global pressures and the merits of sharing local responses as a tool for networking and social capital building across the global scale. In the next section, we describe two research projects: a World Urban Forum workshop and the food systems research project in Ontario, Canada. By comparing the findings we identify common challenges that stem from shared global pressures.

We then characterize common good practices and analyze how emerging networks of community food systems can be used to improve knowledge sharing as a pathway to more resilient regional communities. This approach is consistent with good practices work we have done in Canada where we developed a Community Food Toolkit.[1] In that case we provided a selection of innovative case studies and communities chose what is best suited to their unique community-based assets and challenges. The idea is not to identify a templated one-size-fits all set of best practices but rather to share approaches that work so communities can identify what is appropriate for their unique circumstances. We conclude the paper by pointing to how policy could support regionally-based initiatives.

While we readily concede that the methodology relies more heavily on researcher experience and observation than is usual, and that drawing broad conclusions is premature, we aim to stimulate a conversation that could help join countless regional food webs into a more integrated and globally networked food system that circumnavigates the "congealed injustice" (Zinn 1968 in Heynen 2010, p. 1234) inherent in neo-liberal society.

The theoretical context: common problems, shared networks of solutions

Many argue that pressures at the global scale require the adoption of a sustainable food systems perspective to devise concrete solutions for localities and regions (Marsden and Sonnino 2012; Lang, Barling and Caraher 2013). Significantly, there is growing consensus about the nature of these solutions. On the one hand, it is argued that they need to be place-based to enable communities to identify their specific needs, build on their collective assets, respect traditional diets and mobilize appropriate resources. On the other hand, many point out that supportive meta-scale structures are also needed as a framework for facilitating change (Friedmann 2007; Hinrichs and Lyson 2008; Goodman, DuPuis and Goodman 2011; Marsden and Sonnino 2012; Spargaaren, Oostervier and Loeber 2012; Andree, Ballamingie and Sinclair-Waters 2014). As Marsden (2012, p. 2) states:

> [W]hilst we clearly must not lose sight of the macro-global picture, we also need to realise that in order to imagine and plan realistic alternatives it is necessary to adopt a

[1] See http://nourishingontario.ca/community-food-toolkit.

> more creative eco-economy paradigm which re'places', and indeed relocates, agriculture and its policies into the heart of regional and local systems of ecological, economic and community development.

From a theoretical perspective, Gibson-Graham's (2006) "politics of the possible" offers a framework for achieving progress at the community scale. A main purpose is to build post-political "community economies" by tackling incapacities founded in neo-liberal governmentality and related constraints on bottom-up change. Consistent with the work by Foucault (Foucault et al. 1991), neo-liberal governmentality is described as a homogenizing, disciplining force that has resulted in "…the creation of subjects who could be manipulated by "the Economy" as a matter of rational course" (Gibson-Graham 2006, p. 1049, Harvey 2005). As Heynen (2010, p. 1234), reiterating Carter (1973, p. 118), writes:

> The belief in individualism that emerges from the production of liberal forms of democracy involves seeking the maximum area of free choice, which leads to minimizing both the governmental restraints on freedom and external intrusions on privacy. What this liberal paradigm translates into is the freedom to let the hungry starve via laws that ensure a buffer from reality for the majority.

The atomizing effect of neo-liberalism exacerbates existing inequality and (re)produces isolated individuals, denies their collective power and excludes the most vulnerable in society. At the community and regional scales, individuals are unable to negotiate on behalf of the collective with respect to social goods and to develop a community-based "ethic of care" as part of how to "perform community in a different way" (Gibson-Graham 2006, p. 1030; see also Morgan 2010). Alternatively, networks offer a way for communities to share knowledge about how to deal with global challenges and, in the process, develop connectivities of solidarity.

We see disconnectivty in the food system where many local communities are unable to act in their own best interests. Tenuous financial circumstances of small farms and landholders (Hinrichs and Lyson 2008; Pillarasetti, Lawrey and Ahmad 2013); corporate consolidation throughout the food chain and the aggressive marketing that shapes consumer taste and needs; the increasing reliance of consumers on highly processed food sourced from distant locations (Patel 2008; Nestle 2013); and the rising rates of an increasingly "bimodal" food insecurity rooted in both under- and over-consumption in developing and developed countries alike

illustrate the pressures exerted by the commoditized global food system (Lang et al. 2013; Patel 2013) and their effects on local communities.

In the context of this individual and social incapacitation, Gibson-Graham (2006, p. 1086) suggest that, "If we are to enact new economies, we need to imagine "the economy" differently – as something that is created in specific geographical contexts and in historically path-dependent ways." We would extend this observation to include a "politics of the possible for sustainable community and regional food systems" that incorporates social justice, environmental resilience and robust, locally-focused, economic factors. In the context of food, this perspective offers approaches to build community. For example, Trauger and Passidomo (2012, p. 299) describe how community-scale farmer-to-consumer initiatives "create new economic subjectivities through relations of interdependence and mutual reliance between consumers and producers." Post-capitalist possibilities have been explored directly through tenant rights, hacker communities and alternative trading systems, among others (Chatterton and Pickerill 2010; Seyfang 2009; Castells, Caraca and Cardoso 2012).

Potentially, then, food offers a platform to facilitate system-wide transformation through networks of alternative initiatives as a step to developing critical mass – that is, to support efforts to increase their individual size (when appropriate) or to replicate approaches (as and when appropriate) from the community to the regional scale (Friedmann 2007; Day-Farnsworth et al. 2009; Westley et al. 2009; Tavanti 2010; Nelson and Stroink 2013). While scaling up and out is not appropriate in some cases as it can lead to co-option by industrial interests among other challenges (Guthman 2004; Goodman et al 2011; Levkoe 2014),[2] there are circumstances where scaling up food systems to a regional scale can offer increased food system resilience (Feenstra 2002; IAASTD 2008; Grisa et al. 2011). The process of scaling up from single initiatives or community-scale projects can foster the capacity to address regional food needs by integrating the most appropriate and community-relevant best practices drawn multiple initiatives, rather than re-placing the local with the global (Marsden 2012; Blay-Palmer et al. 2013a,b; Sonnino and Griggs-Trevarthen 2013).

[2] Here the work of academics such as Born and Purcell, Dupuis, Guthman, Goodman, Hinrichs and Winter is important, in particular the conditions that engender defensive and parochial tendencies. It is critical to heed their cautions about co-optation of alternative and/or organic food by industrial and global food corporations as well as their warnings about the "fragility" of local action and the need to embed gains at higher governance scales (Sonnino 2009).

While social movements and "networks of networks" are important to system transformation (Holt Giménez and Shattuck 2011; Levkoe 2014), there remain questions about *what* could help facilitate this transformation. In general, the focus on efforts to scale up and out existing alternatives raises the need for enhanced networking that prevent the isolation of food system innovators and facilitates the creation of spaces for collective action. Work by Jules Pretty in the early 2000s (Pretty and Hine 2001; Pretty, Morison and Hine 2002) and more recent work (e.g., Sonnino and Griggs-Trevarthen 2013; Nelson, Knezevic and Landman 2013) on social networks in community food enterprises highlights the critical role of social capital and associated networks in the creation and on-going resilience of alternative food organizations. Defined as encompassing those "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam 1995, p. 67), social capital offers mechanisms to improve bonding and bridging capacity within and between communities. In the UK, for example, social capital has facilitated the development "…of a collective socio-ecological vision, based on the integration of social, economic and environmental goals" (Sonnino and Griggs-Trevarthen 2013, p. 288) which lie at the heart of emerging clusters of social food economies. In addition to supporting knowledge-exchange processes and the dissemination of good practices, networking can empower individuals.

A second challenge to the development of a food system "politics of the possible" concerns the need to integrate social, economic and environmental objectives to reflect the complex nature of sustainability within and between communities. The System-of-Systems (SoS) literature offers promising theoretical ground in this direction. Building on the work of Holling and Gunderson (2001), Hipel et al. (2010, p. 4) define SoS as "large scale concurrent and distributed systems that are comprised of complex systems…which exhibit emergent behavior, evolutionary development, self-organization and adaptation" (see also Holling 2001; Holling and Gunderson 2002; Nelson and Stroink 2013). A Systems-of-Food-System (SoFS) version of this theory could: (1) Support and enable the policies, structures and institutions needed to improve the integration of environmental, economic, material, political and social priorities; and (2) Account for the values and ethics embedded in communities and ensure diverse community building blocks (Hipel et al. 2010). In general, systems thinking helps to ensure community resilience – that is, the capacity to not just bounce back, but also "bounce forward" (Walsh 2002; Remmers 2011). As theorized by Davoudi et al. (2013), a resilient community has the potential

to transform and persist through innovation, planning and learning. At the regional scale, this could allow community projects to be better connected and, at the same time, more diversified. For example, knowledge sharing could help develop local food production (e.g., by learning to grow a broader range of crops), enhance local processing and food handling activities and create more robust distribution and food vendor opportunities through improved networks.

When coupled with work on social capital and networks, SoS and resilience theories are particularly promising tools to capture the potential for scaling up and out individual food initiatives. In combination, they help us envision a sustainable SoFS framework and provide a model to iteratively develop and test policies that integrate different dimensions of sustainability around the values, ethics and diversity embedded in different communities (Hipel et al. 2010). Further, as Levkoe (2014, p. 399) argues in his description of the emergent food movement in Canada:

> Participation in networks provides an opportunity for AFIs [alternative food initiatives] to share their experiences with others from different places and with different perspectives. Collaboration across sectors, scales and places offers the potential to work towards longer-term, structural changes necessary for transforming the food system.

One next step in this analysis, then, is to identify ways to foster networks. This paper elaborates the sharing of good practices as common solutions to shared global pressures as one tool that could be used to foster information sharing, build bonding and bridging social capital and ultimately stronger global sustainable food system networks. While acknowledging the key insight of Morgan and Morley (2014, p. 92) that good practices can be "bad travelers," we suggest that developing a suite of good practice options for communities allows each community to select and develop their unique place-appropriate good practices *and* build knowledge-sharing networks at the same time. The suggestion here is not to prescribe a template but rather to encourage information sharing and learning.

In the balance of this paper we reflect on the merits of fostering community-based prosperity through the identification of good practices in community food systems that offer the basis to support social capital between communities as a way to actualize a "politics of the possible." This initiative is not meant to be prescriptive. What we suggest is a sharing of a suite of good practices that communities could consider as they work towards increased food system sustainability. It is important to consider that as good practices can be "poor travelers" (Morgan

and Morley 2014), communities need to be able to be informed about a range of practices and to select the ones that are place-appropriate. Enhanced social capital would facilitate sharing good practices and allow communities to learn from one another, honor the uniqueness of each knowledge base and enhance collaboration. Increased communication within and between individuals and communities is crucial for the creation of enhanced social spaces. In describing sustainable community food projects across the United States, Feenstra (2002, p. 102) emphasizes the,

> …multiple opportunities these projects created for diverse people in communities to come together to talk, listen to each other's concerns and views, plan together, problem-solve, question, argue and come to agreement, compromise, learn another's language and how to speak so someone else can hear you, and to get to know and trust one another in the context of a common purpose or vision.

This in turn provides the foundations and possibilities for political activism and possibly transformation (Levkoe 2011).

To explore the extent to which community responses to globalized pressures are creating a "politics of the possible" for sustainable food communities and how this may offer the basis for networking, resilience, mutual learning and enhanced global solidarity, in the next section we report on common community pressures identified at the WUF-VI event as well as through on-going research in Canada. Next, we match these shared challenges to good practices that that were identified from research into alternative food systems in Canada. The aim is to identify possible solutions to the global pressures and provide some insights into the potential for wider sustainable food system transformation. This paper addresses two questions related to what could foster the change envisioned through a "politics of the possible" and the opportunities offered by developing more robust networks. First, do the common pressures from the global food system create similarities at community and regional scales? And, second, could these commonalities result in good practices that, if shared, may be the basis for solidarity and accelerated sustainable food system transformation?

The research

The data presented in this paper was collected in two separate research projects. The first project began with an online listserv discussion moderated by the "Food-for-Cities" of the United Nations' Food and Agriculture Organization (FAO). This consultation resulted in a framing question for a workshop on urban-rural food linkages at the WUF-VI in Naples (Italy) in 2012. The goal of the workshop was to identify key areas of concern and possible interventions for stakeholders involved with the food system in different areas of the world. The listserv is not accessible to individuals without Internet access and while no registration was charged for attending the WUF-VI, the transportation and accommodation costs of taking part in the event limited the number of participants for the event as a whole and by extension, the side event that is reported here. This necessarily poses limits on the extent to which these results can be applied more generally. However, since, as we stated earlier, this paper is intended to be a starting point for further research and discussion, these constraints were not seen as sufficient rationale for not sharing the findings, albeit with caution.

The second project is a multi-year case study analysis and Participatory Action Research initiative exploring community food projects in Ontario (Canada) –specifically, the place-based social, economic and environmental tools communities deploy to respond to the dominant pressures on their food systems. This project has been ongoing since 2011 and involves food system participants from field to fork, academics from across the social sciences as well as officials from government, civil society organization and the private sector.

Comparing findings from these two initiatives furthers our understanding about whether there are common community-scale food system challenges and related good practices. As discussed above, we consider this as a first step to exploring the scope for a "politics of the possible" that brings about food system change through networks that share good practices.

The World Urban Forum VI event

Started in 2009, the Food-for-Cities network is an international online community of more the 2500 practitioners, policy-makers and academics. In keeping with the 2011 paper titled, "Food for the Cities," the online network promotes a systemic approach to building comprehensive and resilient food systems that recognize the potential for local food production to help meet the food

needs of an increasing number of urban poor, in particular women and children. The network has a focus on increased collaboration among stakeholders and the application of territorial planning and legal frameworks to give visibility to food and nutrition security in cities where over half the world's people now live and where the fastest growing segment of food insecure people are located (FAO 2011).

In preparing to lead a side event at the WUF-VI, Food-for-Cities members were asked to submit questions for discussion at WUF-VI. Input was received from practitioners and academics in Brazil, Bangladesh, the UK, Switzerland and Thailand who work in labor, food and water management, food and nutrition security, urban ecology, health and development. The framing theme that emerged as the one that best addressed stakeholders' efforts and needs was "Linking Farmers to Local Buyers: Opportunities, Challenges and Successes."

Building on the detailed input received from online participants, the WUF-VI side event set out to explore how to connect urban, peri-urban and rural farmers to local markets to enhance producer income streams, build more ecologically sound food systems, and give buyers from local restaurants, school programs, government offices and other institutions access to fresher, healthier local food. Side event participants included officials from government, business, NGOs, academics and practitioners from Canada, Germany, Indonesia, Italy, Liberia, Morocco, Nepal, Nigeria, Norway, Philippines, Spain, Tanzania, the United Kingdom and Zimbabwe. While this group does not provide a representative cross section of all stakeholders, it does allow for initial insights from both the Global South and North. Given the exploratory nature of this paper, and its consistency with what is widely reported in the food systems literature, we are confident that the preliminary conclusions presented here can create the basis for further discussion.

Researchers employed a condensed World Café approach to facilitate interaction between the participants at the side event.[3] This method allows participants to co-determine key questions, exchange experiences and learn about local food system opportunities, challenges and successes. In this way, the side event addressed two goals simultaneously: first, to explore the question established through the online consultation; and, second, to help people learn from each other and create a network.

[3] A World Café approach is a workshop facilitation tool that provides background information for participants, allows them to formulate their own questions and then self-organize to answer those questions. Sessions end with participants sharing their insights with each other.

Participants chose this side event from among three others sessions offered at the same time. The side event was attended by more than 25 people and included policy-makers, national and municipal government officials, practitioners and academics who are all working, in different capacities, to establish more sustainable spatial and socio-economic linkages between cities and their surrounding rural areas. The workshop was facilitated by the authors (with the support of a researcher) and all have experience with the "World Café" workshop approach.

With the question from the Food-for-Cities listserv consultation as the starting point, one of the authors introduced the side event theme and provided background context about how public food policies and sustainable food systems intersect. Key points focused on the emergence of cities as policy innovators that strive to fashion more sustainable "urban foodscapes." The introduction ended with a series of critical questions about the potential for urban-regional governance to address food security and also probed opportunities for developing knowledge-exchange and networking mechanisms to help urban and regional governments share good practices.[4]

Following the introduction, participants were asked to identify what they determined to be the most pressing issues and questions related to the theme "Linking Farmers to Local Buyers: Opportunities, Challenges and Successes." The questions raised by workshop participants were consolidated into three sub-themes that captured key concerns and were agreed to as the most pressing issues by consensus. Following this process, participants assigned themselves to one of three sub-theme discussion groups. The individual making the introductory comments, along with an expert from the FAO and another academic, facilitated discussion in breakout discussion groups.

Each group was asked to identify key challenges, share success stories and identify next steps that would help to resolve the challenges posed by each set of questions.

The three sub-themes and related questions and discussion points were:

1. Who will produce goods under the process of urbanization? This question involved a consideration of how to intensify ecologically-sound production in the context of decreasing labor supply resulting from rural to urban migration.

[4] These framing questions were intended to be a link between the question identified by the online Food-for-Cities listserv and the WUF VI attendees as well as stimulate discussion at the WUF side event.

2. How can labor be incentivized to stay and/or take up food production and remain in rural environments? The discussion that emerged from this question identified the need to value and appreciate rural labor as a way to stem rural to urban migration as well as keep knowledgeable producers on the land.
3. Adopting a multi-stakeholder perspective, what is the role of the private sector in urban food security? This group explored how public and private interests can be reconciled, how to ensure that maximum value is added by both sectors and how value can be better distributed throughout the entire food chain.

Once these questions had been established, participants self-assigned to one of the three discussion groups. Each group was helped by a facilitator to identify challenges, opportunities and one key summary point related to their question. The results from each of these discussion groups were transcribed from the flipcharts and notes and are summarized below (Table 1).

<<TABLE 1 should appear about here>>

The first question, "Who will produce goods under the process of urbanization?" included a consideration of how to intensify ecologically sound production in a context of decreasing labor supply due to rural to urban flows of material, people and their knowledge. The *challenges* identified in the workshop included planning for amenities in rural areas to reduce rural to urban migration, specifically the need to increase transportation infrastructure to move food from rural to urban areas. Adequate infrastructure was identified as a means to contain costs and at the same time retain labor. The need to balance export market connections and trade against local market shortages was also raised as an issue. *Opportunities* identified by this group included linking local farmers with school markets (e.g. "Food For Education" programs or food as fee); using community gardens as livelihood options in urban slums; improving water supply and appropriate sanitary regulations; and leveraging government funding for food production via credit programs. The *key point* identified by participants was that these issues are not specific to countries; rather, they are regional in nature, with land tenure emerging as a key underlying issue that needs to be addressed to facilitate lasting change.

The second question, "How can labor be incentivized to stay and/or take up food production and remain in rural environments?" led to the identification of several *challenges*. In

particular is the need to value rural labor opportunities as a way to stem rural to urban migration and keep producers on the land. A related consideration was the need to shift from subsistence farming to production in excess of family nutritional requirements to provide a supplementary income source. An equally critical tension that emerged was the importance of maintaining reasonable food prices for consumers to ensure food and nutrition security. Taken together, these points highlighted scale issues and the necessity for integrated involvement, networking and participation to find balanced, equitable solutions. Specific examples of the *opportunities* that would help to address the tensions include developing alternative income generation opportunities (such as farmers' markets and Community Supported Agriculture,[5] public procurement strategies, agri-tourism and street food vending) to increase farmer income by selling goods and/or services directly to consumers. Food banks, improved post-harvest handling and leftover re-use were proposed to reduce waste and make the food system more robust. Significantly, participants suggested that integrated urban food policies would give individual initiatives the best chance at success as this could facilitate a regionally integrated approach.

The third question, "Adopting a multi-stakeholder perspective, what is the role of the private sector in urban food and nutrition security?" stimulated a discussion on *challenges* including how to reconcile public and private interests, how to ensure that maximum value is realized by all sectors and how this value can be better distributed throughout the entire food chain. Within these broadly defined challenges, several specific issues emerged including: (a) the focus of existing procurement strategies on a narrow range of foods, often processed for extended shelf life that left out fresh fruits and vegetables; (b) the role of middlemen as profit-takers; (c) competition with cheaper, non-local products; and (d) the lack of infrastructure. Some participants commented on the role of the public sector to set standards and policies, and suggested this could be improved by broadening participation to also include the private sector and civil society. There were several *opportunities* identified to help to address these challenges. First, the use of public education campaigns to increase the perceived value of food. Sharing physical and technical resources was recommended as a strategy to contain costs through associations such as producer cooperatives. Stimulating local institutional procurement was proposed as a key opportunity for creating stable demand. Participants also suggested exploring

[5] Community Supported Agriculture (CSA) directly links famers to buyers who purchase shares prior to the growing season. In return, share-holders receive regular boxes of vegetables, fruits and other food. The rationale is to spread the benefits and risks between consumers and their farmers.

private sector contributions to increase production as well as improved information through, for example, new communication technologies. Finally, this group also recommended improved infrastructure at all stages of the food system, including production, post-harvest handling and supply chain management. The *key points* raised by this group were that to engage the private sector from farm to market supportive regulations and standards, appropriate infrastructure (e.g. new technologies, roads) and public procurement mechanisms were needed.

The Nourishing Communities research network: insights from Ontario, Canada

The Nourishing Communities research project has engaged in community-based research since 2011. Academics, officials from NGOs and the public and private sectors work together with the goal of fostering more sustainable local food systems. Using a matrix that included considerations about urban/rural dynamics, organizational type (not-for-profit, for-profit, cooperative), and organizational motivation (social justice, environmental, economic) researchers identified the 20 most innovative initiatives from a scan of over 350 local sustainable community-food projects. These were developed as case studies and included in a sustainable Community Food Toolkit and a Models and Best Practices report (Knezevic et al. 2013). The producers included in this project are small-scale family farms, urban farmers, CSAs or small-scale market gardeners. Mobile delivery, on-farm stores, co-operatives and food security organizations represent the post-production actors. These businesses and organizations aspire to sustainability goals including ecological regeneration, social justice and/or the circulation of resources in local economies. The toolkit has been used by communities to identify community-appropriate food system innovations.

The research in Ontario revealed several challenges to local food system sustainability (Landman et al. 2009; Blay-Palmer et al. 2013a, b; Knezevic et al. 2013) that can be linked, directly or indirectly, to pressures from the global food system. Of particular relevance is the support for global food supply chains and highly processed foods as the standard for the industrial food system. These systems exert pressure onto various parts of the food chain for cheap, homogeneous food (Weiss 2007; Blay-Palmer 2008). Using thematic analysis, the challenges identified in the Ontario case studies were grouped and then summarized into seven

categories (Table 2). These include the need for: (1) Community/regional-scale infrastructure and regulations. This includes building or enhancing small and medium scale food processing, storage and distribution infrastructure. Scale appropriate regulations are also needed to comply with food safety requirements within the bounds of small and medium sized organizational capacities. For example as food processing has scaled up to the national and even continental scale, there is a lack of community-scale processing and distribution infrastructure that prevents food from being processed in communities. (2) More supportive and straightforward planning regulations in line with sustainability principles. This includes zoning regulations in urban and peri-urban areas, legislation on keeping animals (in particular poultry) in some urban areas, and street food vending regulations (see also Desjardins, Lubczynski and Xuereb 2011). (3) Secure access to affordable land to allow for small-scale and diverse, ecological food production. This is especially the case around the Greater Toronto Area where enormous development pressures continue to increase the cost of farmland, creating a barrier to entry for new farmers. (4) Consumer education about nutritional, health, environmental and economic benefits of local sustainable food. For example, many people lack the skills to prepare meals from raw ingredients and resort to purchasing highly processed food. While this food is relatively inexpensive and easy to prepare, it is associated with detrimental health consequences that includes increased food-related diseases (Caraher and Conveney 2004). (5) Development and reinforcement of robust networks for information sharing about good practices. Information technology is seen as particularly important given its potential to facilitate and streamline communications and network building. An especially challenging problem is the lack of access to high speed Internet in some rural areas. As Internet based links emerge, isolated producers and consumers in rural parts of Ontario are at a disadvantage. (6) An emphasis on viable on-farm incomes which requires family members to work off-farm to supplement inadequate or unpredictable revenues from agriculture. This needs to be connected to stable food supply and affordable, nutritious and culturally appropriate, sustainable local food for consumers. Food insecurity is on the rise in Ontario, as evidenced by the large numbers of households that use food banks. For example, more than 25% of single parent families report moderate to severe levels of food insecurity (Blay-Palmer, Turner and Kornelsen 2012).

<<TABLE 2 should appear about here>>

Identifying shared challenges and opportunities: growing sustainable food places through knowledge sharing and collective change

By comparing Tables 1 and 2, we identify challenges common to both the WUF-VI workshop participants and the sustainable food system initiatives in Ontario. A comparison of findings reveals six shared issues (Table 3, first column): (1) The need for community/regional-scale appropriate infrastructure; (2) Scale appropriate, food informed policy and governance; (3) Land tenure and access; (4) Consumer education; (5) Network building; and (6) Economic viability along the food chain. To explore the potential for a "sustainable food politics of the possible," we will extrapolate from these common gaps to identify potential solutions through good practices documented in Ontario (Table 3, Column 2).

<<TABLE 3 should appear about here>>

Before sharing these results, it is important to clarify that there are also dissimilarities when one compares food systems in various places as one would expect based on place-based assets and resources. While commonalities were identified during our research, many differences were also noted. For example, road infrastructure is a serious constraint in developing countries and can make access to remote communities extremely difficult or impossible in some cases. Access to electrification, clean water and sanitation were also raised as pressing issues by countries in the Global South. These challenges are generally not faced in Global North countries.[6] While acknowledging the importance of confronting these realities and with no intension of diminishing either the differences between communities or the seriousness of these challenges, the purpose of this paper is to explore the extent to which commonalities exist as the basis for sharing knowledge and joining together sustainable communities of food. Networks that share good practices could form the basis for building collective interests, knowledge sharing and solidarity. Given the shared global pressures, it is our contention that there are valuable

[6] Areas that experience urban decay, for example in Detroit, do also have to mediate these infrastructure gaps (e.g. White 2011)

points of intersection where information sharing and network building could be valuable.

With these cautions in mind, Table 3 compiles selected good practices identified from the Ontario project that could serve as examples for other communities trying to address impacts from global food system pressures. These good practices provide benefits that could enhance the resilience and sustainability of local food systems. While there are many examples for each category available in other reports and papers (Blay-Palmer et al. 2013 a, b), here we provide a suite of suggested solutions as a starting point to be discussed, implemented and refined at the local level. These good practices were developed as part of a toolkit that communities use to identify their sustainable food system resources and needs. The example good practices provide insights into how communities have addressed their own challenges through place-appropriate solutions.

Table 3 sets out six sets of good practices from research in Canada (Column 2) and links them to the challenges shared by the WUF participants and the community food actors in Ontario (Column 1). It is important to note that this list is only intended to provide a starting point for illustrating the potential of a knowledge sharing/networking approach. In what follows we present each good practice and accompanying examples in response to the six common challenges identified in the previous section:

1. Main strategies utilized to address *scale appropriate infrastructure* in Ontario include on-farm processing such as dairy product processing (e.g. cheese, liquid milk and ice cream), online farmers' markets and the development of alternative distribution and retail opportunities. Drawing on the work of Stevens (2013), Wendy's Country and Mobile Markets is one example of a place-based initiative that develops infrastructure to link urban and rural areas. The mobile market aggregates and sells local product to nearby residences and businesses.[7] At the time of the case study interviews, Wendy's worked with over 70 producers. The mobile delivery service circulates food within a 100-mile radius. The retail store is located on family owned property. Both the mobile and retail markets operate year-round. Wendy's also acts as a social and educational hub as they host monthly events during the growing season. In 2011, they added a mobile kitchen to prepare Wendy Market meals at other sites. Challenges for the family-run

[7] Product includes meat such as game and venison such as elk, bison, duck, rabbit, goose, water buffalo and wild boar, fish, dairy, eggs, produce, cheese, hand-made ice cream, baking and preserves

business include: over- dependence on poorly remunerated family labor as Wendy and her husband work 10-15 hours daily seven days a week year round; cash flow and borrowing costs; and time pressures, including the need to streamline deliveries for efficiency. Wendy's in all its incarnations is an excellent example of a growing food provisioning business that advocates for, and educates about, local food systems (Andree et al. 2014).

Insights into urban opportunities and challenges are offered by the ground-breaking work of FoodShare. Located in Toronto, Ontario, and founded in 1985, FoodShare is a premier example of a non-profit organization working at the intersection of urban food security and local food system sustainability. With its beginnings in programs from Brazil including the Popular Food Basket that was developed at FoodShare as the Good Food Box (Rocha and Lessa 2009) and roots in emergency food access, FoodShare's, "multi-sectoral food centre reaches of 155,000 children and adults monthly with programs including: direct fresh produce access; childhood nutrition and education; urban agriculture; and youth and women targeted community cooking and skill development" (Yeudall and Whyte 2013, p. 141). In its role as a social enterprise food hub, FoodShare provides a monthly Good Food Box to more than 4,000 families, offers food directly to communities through a mobile market, fresh produce to schools and fixed site markets in underserved Toronto communities (Yeudall and Whyte 2013).

2. Scale appropriate, food informed policies are also needed. For example, clear zoning and planning initiatives are important mechanisms to facilitate small and medium scale local food processing and support infrastructure development at the community/regional scale. The incorporation of food-related considerations into the planning system is seen as essential to supporting community infrastructure. For example, in one small-sized city's Official Plan (OP),

> …fostering sustainable food systems [is included] as a strategic goal, part of a broader framework for creating a healthy community. Furthermore, urban agriculture is enshrined in the revised OP as a strategic objective. While the language remains somewhat soft…there is now an opportunity for planners to make food systems a responsibility within their daily work (Hayhurst et al. 2013, p. 614).

There also needs to be a shift in the system such as the one facilitated by the 2013 Ontario Local Food Act, which requires government offices to purchase local food. This act came about in part thanks to the recognition of the growing numbers of community-based local food projects in the

province as well as through the efforts of provincial networks activating for change (Government of Ontario 2013). While specific targets have not yet been set, this act provides an example of shifting policy and legal frameworks.

3. Land access reflects the impacts of historically inequitable income distribution and land ownership. Development pressures for housing, agro-industrial commodity crop production and escalating meat consumption in rapidly urbanizing areas as well as rural regions overlie these challenges. While these challenges are exemplified by the Movimento dos Trabalhadores Rurais Sem Terra (MST, Brazil's Landless Workers Movement) (Wolford 2003), Canada is no exception (Heimlich and Anderson 2001; Roberts 2012). Within many Canadian communities land use changes need to include repurposing land, often publically owned, for community food production and education. The JustFood Ottawa farm is one example among many in Ontario (e.g., FarmStart 2013; Everdale 2013; Project SOIL 2014). The JustFood farm was conceived to be both a training and demonstration center (Ballamingie and Walker 2013). The farm aims to provide (Just Food 2013):

- a healthy local food economy with access to food for all, serving the growing demand for locally produced products
- a vibrant and economically viable farming sector
- a cost-effective model of conservation and land stewardship that builds on scientifically based agro-ecological practices and supports economic activities that yield habitat protection and ecological services
- innovation in green building and sustainable energy.

The urban farm is sited on leased federally owned and managed land within the Ottawa Greenbelt. The land is being transitioned to organic certification standards. In 2013, its first year of operation, it offered three acres to twelve new farmers (Just Food 2013).

4. Most of the community initiatives that we examined included some elements of *citizen education*. While the specific goals vary, the overarching aim is to empower consumers and to inform them about the food they consume. These efforts were apparent across the province and were used to connect local food with issues related to different facets of the food system, including the externalities created by industrial food production and the opportunities to build

rural-urban linkages, to empower food consumers and make local food producers more visible. Examples of outreach include teaching people how to cook whole foods, training new farmers, providing information about nutrition and "most importantly, help change peoples' attitudes about, and relationship to, the food they grow and eat" (Knezevic and Nelson 2013, p. 12). Lanark Local Flavour (LLF) combines many of these goals as it "works to link local farmers to local eaters, expand capacity and access to sustainably produced food, inform the public about food issues, and to celebrate the people who grow our food" (Andree and Sinclair-Waters 2013, p.40). Due to its small size, numbering up to seven volunteers, the emphasis is on impact. Projects being pursued by LLF include gardens at youth centers and schools, food celebration events and a website linking consumers to local food producers who sell direct through farm gate or CSA shares (Andree and Sinclair-Waters 2013).

5. Network building projects include producer co-operatives, collaborations between community initiatives and local health units, multi-stakeholder food policy councils and round tables (Knezevic and Nelson 2013). One of the most interesting initiatives in this respect is the Food Security Research Network (FSRN) in northern Ontario where network building is especially relevant, given the imposing geography of the area: northern Ontario extends across over 800,000 square kilometers and has a very sparse population density. Over 20% of the population is aboriginal. In the far north, which represents a little over half of the total northern Ontario landmass, there are 31 First Nation communities (Ministry Natural Resources 2013). Networks and linkages, in some cases through the application of information technologies, form the basis for emergent information sharing and learning. The FSRN brings together over 60 community partners including agricultural organizations, umbrella First Nations organizations, educational institutions and charitable and community organizations. Given the vast distances and remote nature of communities, networking in this area has taken place primarily in the west and east. A key goal is "capacity building in socio-economic development towards a northern regional food system" (Nelson and Stroink 2013, p. 47). The True North Community Co-operative, a member-led retail operation that offers northern products from "the land or hand," connects 298 individual members, 51 producer members and 8 organizational/institutional members. It has a very modest operating budget funded entirely through memberships and a premium charged on retail sales. In this way the co-operative grows based on its own capacity and avoids reliance on

outside funding (Nelson and Stroink 2013).

6. Economic viability along the food web is a fundamental challenge to resilience for all alternative projects. With this in mind, we searched for insights into successes and challenges related to economic stability, and several commonalities were identified. First is the need to build redundancy into funding sources, rather than rely exclusively on one funding stream. The projects we researched, for example, accessed funding from: (a) municipal and provincial government departments, including economic development, health, tourism, agriculture, food, rural, training, community and social services; (b) universities that provide research and some employee support through Participatory Action Research methods; (c) local, national and international foundations and other philanthropic organizations; and (d) private enterprises. The most successful combination includes elements of local economic development, health units, and universities. Organizations were also exploring direct income generation options, including the siting of alternative energy projects on their property and crowd-funding. Communities were largely aware of the value of attracting money to (and recirculating it within) local economies and there was broad based attention to connect producers to consumers in the shortest webs possible (Knezevic and Nelson 2013).

Before we proceed to our conclusions, it is useful to point again to the limitations and gaps of our research. First, the tables presented here are not meant to be comprehensive but are intended as a basis for more detailed research to foster increasingly sustainable communities of food. Second, the three questions explored in the WUF-VI event tended to make a clear distinction between urban and rural areas and may overlook the urban-rural continuum. The separation of functions is likely not to be this clear-cut and warrants more research. Third, many sustainability dimensions, for example biodiversity, have not been included and need more profile consistent with other work.[8] Caution is also needed based on the nature of the two projects reported in this paper. While the Ontario research is extensive, the WUF-VI event was based on a small group of self-selected participants. However, given the overlap in issues identified by both groups, we anticipate this paper could provide an impetus to facilitate conversations about overcoming the challenges related to building global solidarity networks. With these future opportunities in mind, we can now turn to some more general conclusions.

[8] See, for instance, http://www.cbd.int/authorities/doc/cbo-1/cbd-cbo1-book-f.pdf.

Seeding a "sustainable food politics of the possible"

Through their "politics of the possible" Gibson-Graham (2006, p. 1396) asks us to envision,

> A counterhegemonic politics [that] involves…identification with alternative and politically enabling positions. In the economic realm today we are confronted with no one set of possible alternative identities…To follow through with the project of constructing a counter-hegemonic politics…we need to identify an alternative fixing of economic identity around a new nodal point.[9]

In this paper we suggest that a global network of place-based community/regional/city-region sustainable food initiatives that share solutions to common global pressures could act as a counterweight to the atomizing effects of the industrial food system. By convening around good practices, communities can reinforce a global System of Sustainable Food Systems that: enhances a sustainable flow of food, knowledge and people; develops the capacity to activate sustainable local food systems in a more collective manner; and, potentially resists the disaggregating impacts of neoliberalism. It is important to note we are not suggesting a template for "best practices." Rather we are proposing that good practice sharing would allow communities to adopt the practices best suited to their place-based capacities.

Commonalities between alternative food initiatives offer network building blocks for a broad-based sustainable food systems "politics of the possible" that responds to calls for much needed attention to smallholders, food and nutrition security, community well-being and the opportunities for environmental stewardship (e.g. Pretty and Hine 2001; FAO 2012; IFAD 2013; Via Campesina 2013). The starting points identified in this paper are six-fold (Table 3) and include the need for community-scale infrastructure, food informed policy, access to land for smallholders, consumer education about healthy food and sustainable diets,[10] the benefits of sustainable food systems and network opportunities for knowledge dissemination, and the

[9] See also Swyngedouw (2007) and his work on the post-political condition.

[10] Sustainable diets have been defined as those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources (FAO 2010, see also Lappe et al. 2013).

economic viability of regional food systems. In keeping with Gibson-Graham's vision for a "politics of the possible," this is not intended to be prescriptive or limiting. Rather, it is a place to continue the discussion about and practice of building more sustainable communities of food. The value of such an approach is that it offers a platform to build information-sharing networks around common solutions and to foster solidarity building (Holt Giménez 2011, Holt Giménez and Shattuck 2011; Wittman 2011. A concrete example of this work would be to network the Canadian Alternative Land Use Services program (ALUS 2013) with environmental services payment programs in Africa and China (IFAD 2013). Other examples are elaborated in the excellent paper by Holt Giménez and Shattuck who describe areas of permeability between the North/South, urban/rural and across class divides. They draw on examples from the MST in Brazil, labor coalitions between the Immokalee Agricultural Workers Coalition and the United Food and Commercial Workers International Union (Holt Giménez and Shattuck 2011).

We have also begun to point to good practices that may be used to create a platform for change across the global community. That problems are shared and widespread signals a need to unify the millions that struggle to nourish themselves and their communities. There is possibility in an emergent, iterative cycle of networks, social capital building, knowledge creation and sharing grounded in resilient, forward gazing plans that are embedded in subsidiarity so that decisions can be made as close to the community level as possible. With a view to building resilient capacity, national and regional governments can devolve food policies and provide funding for programs that support community-based visions for more local, sustainable food systems. Forecasting effects of potential policies on communities would improve the creation of responsive and relevant innovation environments (Hipel et al. 2010; Nelson and Stroink 2013). Focus groups, concept maps, toolkits and workshops can assist with this analysis (Mount and Andree 2013).

Consistent with the Complex Adaptive Systems literature, sustainable community food initiatives are multi-scaled, complex, distributed systems that have the capacity to adapt and organize themselves through an evolutionary, emergent and self-organizing process (Nelson and Stroink 2013). As we have argued in this paper, bringing various initiatives together through new and more solid networks offers the opportunity to channel the complexity of interactions within and between systems towards more productive ends and to build a networked System of Sustainable Food Systems (SoSFS) as a counter-point to the corporate food regime and as

another step towards a post-capitalist politics. A vibrant SoSFS would foster the development of bridging and bonding capital within and between community and regional food initiatives. To this end, consultation, review, assessment, reflexivity, iteration and forward-looking planning must be on-going (Hipel et al. 2010, p. 10; Davoudi et al. 2013; Levkoe 2011). Through attention to fostering bridging capital, these supports need to be addressed from multiple scales, so regional and city-region systems are scaled up to enable the preservation and enhancement of complex relationships and networks between rural and urban food production and consumption linkages while also respecting sustainability principles (Sonnino and Greggs-Trevarthen 2013; Nelson et al. 2013).

Our research points to two potential supports. First, the Internet as an open network model provides an example of open source success and of the power that networks themselves can gain (Kloppenberg 2010). Food movements and their networks in Canada have been shown to demonstrate multiple types of work with diverse kinds of relationships (Levkoe and Wakefield 2014). The work of Nourishing Communities in Ontario illustrates the importance of the Internet for connecting communities, in particular producers with consumers, through direct-sell food box programs and community-scale food box programs as described in, for example, FoodShare in Toronto (Yeudall and Whyte 2013). A collective project engaging food box initiatives in Australia, the UK, Canada and the US is building open source software to support online famers' markets. Second, the method of network building undertaken through the Nourishing Communities research project is one example among many that has proven to be an effective knowledge co-creation and dissemination mechanism that offers community food innovators the opportunity to learn from each other (Blay-Palmer et al. 2013a). In the same way that ecological systems evolve into complex, interdependent systems, so too have communities. There are critical insights that can be shared across communities that will help build diversity and resilience. Given increasing distress from economic crises in high-income countries and associated increases in austerity measures, food bank use, poverty, small farm crises, land access impediments and related challenges, there is the basis for creating knowledge dissemination networks in the quest to build resilience through improved diversity, flexibility and adaptability. Circling back to the quotation from Gibson-Graham at the beginning of this section, food offers one way forward as communities re-invent the economic and political terms on more sustainable grounds. Knowledge sharing can be an important step in building the trust and associated social

capital needed for creating bridges between different places and more meaningful, long-lasting political action. And, while food is the lens we have used in this paper, this does not preclude building collective communities on other grounds. Alternative energy, biodiversity preservation, and enhanced infrastructure are among the multiple other perspectives that could inform this type of capacity building.[11]

To conclude, the findings in this paper demonstrate that good practices could be the basis for improved networks and information sharing. This in turn could enhance the sustainability and resilience of food systems by connecting regional initiatives into a global network where global challenges and successful solutions continue to build global solidarity. The Nourishing Communities project has added to this work through the creation of a toolkit that helps communities identify food system gaps and assets. Other emerging examples of place-based knowledge creation and dissemination networks include the FAO moderated Food-for-Cities global network; the Agrimonde-Terra project that explores changed land use effects on food security; Rural Alliances Projects that promote and facilitate small farmer access to markets; and a range of urban and regional food and nutrition security networks (e.g. United Cities and Local Government, African Food Security Urban Network, Organization of Regions United and Local Governments for Sustainability/ International Council for Local Environmental Initiatives). As we have attempted to demonstrate in this paper, there is an opportunity to learn from one another at the grassroots scale and avoid corporate domination (Bitzer 2012) through the formation of networks that act as the basis for solidarity and help to build and reinforce social capital within and between sustainable food system regions. This could help avoid the isolation and atomistic existences currently fostered by the mainstream food system by adding to existing sharing, co-operation and collective action. Recognizing the common challenges and successes across communities (Holt Giménez et al. 2011) is a crucial first step to ensure that alternative initiatives coalesce into a more cohesive and coherent movement that has the capacity to realize a real "politics of the possible" – in the food system and beyond. Identifying more specifically how this could take place is a key next step for transformation.

[11] See, for instance, http://350.org.

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Table 1: Summary of challenges and opportunities identified at the WUF-VI side event

Sub-theme questions	Challenges and opportunities
Q1: Who will produce goods under the process of urbanization?	Transportation infrastructure for food producing regions Land tenure is a key underlying issue Plan for amenities in rural areas Reduce rural to urban migration
Q2: How can labor be incentivized to stay and/or take up food production and remain in rural environments?	Need for improved infrastructure Regionally integrated food policy Integrated involvement, networks and participation; technologies to support networks and innovation Develop alternative direct sales opportunities (e.g. farmers' markets, CSAs, public procurement strategies, agri-tourism and street food vending) Increase efficient food use/re-use to capitalize on missed distribution and effective post-harvest management to reduce food waste Value and appreciate rural labor; put more money into farmers' pockets Shift from subsistence to commercial farming by increasing production to ensure farmers have an income and that there is more local food for the region
Q3: Adopting a multi-stakeholder perspective, what is the role of the private sector in urban food and nutrition security?	Need for inclusive policy formulation so policy is scale appropriate and relevant Need to reconcile tensions between value and cost of food Role of middlemen and distanced food systems Empower farmers so they are not price takers Maintain reasonable food prices for consumers

Table 2: Opportunities and challenges to Ontario community-scale sustainable food initiatives

1. Scale-appropriate infrastructure for storing, processing and transporting food
2. Supportive, scale appropriate planning and food safety regulations
3. Access to land at reasonable costs
4. Values-based education for consumers about sustainable, nutritious local food
5. Networks to connect producers, processors, distributors, retailers, food services and consumers in the shortest food webs possible; technologies to support networks and innovation
6. Viable farm incomes so families can stay on their farms and farmer knowledge is preserved and transferred with concurrent stable food supply/demand including specific attention to food and nutrition security

Table 3: Good practice solutions identified through empirical work in Ontario, Canada.

Shared challenges	Possible good practice strategies
1. The need for community/regional-scale appropriate infrastructure;	1. Scale appropriate infrastructure for on-farm and/or in community processing, distribution and retailing of local, sustainable food
2. Scale appropriate, food informed policy and governance;	2. Applying a food lens that is sensitive to the community-scale needs through policy at multiple scales
3. Land tenure and access;	3. Preserving land for food production; repurposing land, often publically owned, for community food uses
4. Consumer education;	4. Using food to empower and nourish
5. Network building;	5. Information sharing and outreach
6. Economic viability along the food web (viable farm income and affordable high quality, appropriate food).	6. Building redundancy into funding sources Attract money to and recirculate within local economies; connecting producers to consumers in the shortest webs possible

These good practices offer possible solutions to shared global pressures confronted by sustainable food systems projects in other places. They correspond to the six rows in Table 2.