

Spotlight

FOOD SYSTEMS

Community Food Security:
Re-Centring Community
in Global Food Action

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A discussion paper developed and
presented by Arrell Food Institute at
the University of Guelph



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ABOUT ARRELL FOOD INSTITUTE

The University of Guelph is a world leader in food and agricultural innovation. Arrell Food Institute at the University of Guelph harnesses multidisciplinary expertise, convenes dialogues, and publishes papers on timely and relevant topics.

Food is intrinsic to human, economic, and planetary health; yet, it rarely comes first in conversations about how to meet today's challenges. Arrell Food Institute at the University of Guelph exists to elevate food to improve life. We bring people together to conduct research, train the next generation of food leaders, and shape social, industrial, and governmental decisions, always ensuring food is the central priority.

More information about Arrell Food Institute can be found at:
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OUR MISSION: ELEVATE FOOD TO IMPROVE LIFE.

EXECUTIVE SUMMARY



This discussion paper is intended to re-centre a community perspective within global food action by focusing on the importance of finding and funding interdisciplinary solutions addressing food insecurity at the community level. It is meant for the various actors who can support and influence food security at all levels.

There is no “one-size-fits-all” solution to food insecurity for every community.

- Income is a determinant of self-sufficiency; focus needs to be placed on equitable and living incomes in communities.
- Youth empowerment involves education, intergenerational knowledge transfer, and creation of opportunities for youth to be a part of their communities.
- Community input is key for academic research, just as communities can implement resources and knowledge from Universities.
- Knowledge sharing among communities and organizations, specifically including those with successful programs, is vital.
- Solutions and roles vary for organizations at different levels within communities.

A viable community food system provides people with more than food; it fosters gainful employment, fellowship, celebration, and overall security. Around the world, work is being done to improve food security; but increasingly, challenges such as climate change are scaling-up the problem, centring the discussion on global issues and actions. Nevertheless, many of the opportunities we have to make our food systems more sustainable, climate resilient, and socially just, require action at the community level. Re-focusing the lens of food security on the community can empower people to collectively enact change. This discussion paper offers a re-framing of food security as it is experienced at the community

level. The details focus on food security and insecurity in Canada, but the framework and points of action can easily be scaled-out to international contexts. This paper is intended for the diverse and interdisciplinary audiences who impact food security, either directly or indirectly, and provides tangible tactics to take action to improve community food security (CFS).

The government of Canada defines a food secure household as one that has access to enough food for members to have active, healthy lives at all times throughout the year.¹ Bringing this to the community level, CFS exists when all community residents are able to obtain safe, personally acceptable, nutritious diets through a food system that maximizes equitable access, healthy choices, opportunities to participate, and community self-reliance.^{2,3} CFS is a process as much as a goal, in that people need to be able to effectively manage changing needs and circumstances. The CFS process can be thought of in terms of the “5 Ps.” These entail: **power** to affect practices, processes, and other decisions; opportunity for **participation** in the various aspects of the food system; **propriety** with respect to moral and ecological ethics; the centring of cultural **preference**; and **proximity** in how food is produced as a conceptual measure of localness. Throughout, it is important to recognize the importance of the non-human — that is: our relationships with the land, sea, and animals that are essential parts of community.^{4,5,6}

Food is a communal experience, therefore shifting the focus to the community level is required. It is well known that eating together improves mood and healthfulness. Sharing of food is a part of many cultures around the globe, and food is a foundation of communities. Yet, the community is also the place where issues of poverty, health and wellbeing, our environment, and economics all intersect within the food system.⁷ Poverty and food insecurity can increase social isolation and tear at the fabric of community. Addressing food insecurity at the community level not only reduces food insecurity, but also builds a feeling of belonging and strengthens ties within. When looking at food security as a continuum from the individual to global level, the community is often the highest level at which there is still personal face-to-face contact. Further, the community is the level at which many programs operate, and where the impacts of policies are realized.

In the following paper, we discuss the current context and problems associated with food insecurity in Canada, with consideration for the diversity of communities across the country. We focus on programs and policies that are currently in place or that have potential to increase community food security.

//////////////////// **Definitions**

Due to the complex nature of this particular topic, various sectors and groups of people define these terms differently depending on the context.

For purposes of clarity, the following definitions are used for this paper:

Food Security
means having the ability to reliably access sufficient, safe, nutritious, and culturally preferred foods to lead a healthy and active lifestyle; a process rather than an outcome.^{8,9}

Community
is a level of organization that describes an arrangement of people who share important interests or other attributes and are sufficiently proximate to one another to communicate and affect decisions. Communities can be linked by specific geographic locales or oriented around certain practices (i.e., a community of practice).

Food System
encompasses everything to do with the production, distribution, and consumption of food (including jobs, the environment, health, transportation, infrastructure, social justice, politics, and culture).⁵

Community Food Security
emphasizes public health, self-sufficiency, cultural appropriateness, and social and environmental justice, with intervention strategies at the community level; it is an emergent phenomenon linked to all components in the food system.⁵

Household Food Security
means having access to enough food for all members in the household to live a healthy and active life.

CURRENT CONTEXT

Focusing on the community level allows us to provide a workable middle-ground between household and global food security. Household food security emphasizes access, availability, and quality of food among individuals and families, while global food security tends to focus on issues of food production, population growth, droughts, and climate change. CFS, by comparison, is a venue for linking public health, self-sufficiency, cultural preferences for food, ethics around food production, and social and environmental justice.⁵

Community-level action on food security can involve increased coordination between schools, health care institutions, housing rights, and employment support clinics, among others.¹⁰ It also involves reconsidering what is meant by “community” and the diversity we have between and within communities in Canada. For example, there are important and unique considerations for Indigenous people related to the harvesting, sharing, and consumption of country or traditional foods and the long-lasting impacts of colonialism. These include residential schools and the systematic attempts to dismantle traditional food systems.¹¹ The CFS framing brings to the fore the diversity that must be inherent to sustainable food systems; there is no one-size-fits-all solution. Each community must have the opportunity to emphasize their own strengths and prioritize challenges that derive from unique cultural, geographic, environmental, and historical characteristics.

Current State of Food Security in Canada

Canada is a world leader in agriculture production; the majority of Canadians enjoy a comfortable level of food security as a result of high levels of disposable income and relatively low real-costs of food.¹² Despite this, food insecurity is still prevalent and affects certain segments and regions of the population disproportionately. The Canadian Community Health Survey (CCHS) includes the Household Food Security Survey Module (HFSSM) and measures household food insecurity across the country.* Provinces and territories have the option to opt out of the HFSSM. Since the HFSSM has been administered, no province or territory has seen a decrease in food insecurity rates. In Nunavut and Northwest Territories, the prevalence has increased markedly.^{13, 14}

* These Canadian statistics are at the household level only (not the community level) and the data comes from questions focused on income (i.e., lack of money for food). In addition, they do not account for locally grown or cultural foods that may be consumed.

BY THE NUMBERS – FROM 2007–2014 ^{12, 14, 15}

- 12% of Canadian adults lived in households that experienced some level of food insecurity.
- Food insecurity was substantially higher in the territories.
- Nunavut reported the highest rate of food insecurity in all of Canada at 50.8%.*
- Among the provinces, the Maritimes all reported higher than average food insecurity at 12–13%.

Food insecurity often relates to income and wealth and housing and work conditions. The impacts of food security go beyond the household level and create economic effects, including increased healthcare and mental health costs.

There are also national level interventions, programs, and policies aimed at reducing food insecurity, which often target individual needs and outcomes. Programs such as the National Child Benefit, Old Age Security, the Youth Employment Strategy, health and education initiatives, and others contribute to a social safety net and help reduce food insecurity.¹² In addition, the recently announced Federal Budget of 2019 introduces a National Food Policy, which prioritizes reducing food insecurity, particularly in northern and Indigenous communities, as well as investing in local food infrastructure and developing a National School Food Program.¹⁵ This is an important gap to recognize, as Canada is the only G8 country without a school food program. These admirable goals could go a long way in reducing food insecurity nationally if the budget is implemented.

A selection of programs and policies that show the diversity of existing programs and demonstrate how different communities and institutions address food insecurity are highlighted in the sections below as short vignettes. They relate to one or more of the 5 Ps and are drawn upon to provide examples for other opportunities. They are not representative of the work of the authors, but rather, they were chosen to show the diversity of programs that exist and for their relevance to the topics discussed here. Collectively, such programs represent a kind of social infrastructure that is an essential part of the foundation for CFS.

* Data for national rates and rates for Indigenous populations vary and may not be comparable

GAPS AND OPPORTUNITIES

Addressing food security at the community level allows for the consideration of challenges and opportunities for interventions across a variety of place- and culture-specific contexts. In other words, the numerous differences between communities and the solutions that may or may not work must be considered before policies are implemented. This includes wealth and income disparities, infrastructure needs, local systems for decision making, and the entire suite of ecological and historical legacies with which individual communities must cope.

Differences Between Types of Communities and Scale

The scale of food production is often mistakenly integrated with statements about levels of organization (e.g., community, national). For example, it might be assumed that small-scale production is only for local consumption (e.g., the “100-mile diet”) and that large-scale industrial production is only for global markets. Communities are, in fact, scale independent, because they come in all shapes and sizes. This is further described in Vignette 1 below.

FEDERATED COOPERATIVES LIMITED

About

Federated Cooperatives Limited (FCL) is a Saskatoon-based organization, owned cooperatively by the many grocers, hardware stores, and fueling stations that they service in Saskatchewan, Alberta, and Manitoba. In each locale, these store chains are also run as cooperatives, e.g., Saskatoon Coop, owned by shareholding customers.

FCL has developed close relationships with coffee growers in South and Central America. As such, “community” refers not always to specific locales but to a degree of organization in which people are connected to each other and the resources on which they rely, so that they can communicate effectively and affect decisions that are being made. In other words, community is when the relationships between people are strong and the supply chains are short.

FCL is well known by shareholders for its institutional commitments to sustainability and ethical sourcing of food and other products. They work regularly with researchers and student groups on projects including material and food waste reduction, on-farm practices, and the study and promotion of the cooperative business model.

FCL and their many shareholding cooperatives illustrate how communities can be nested and scale-independent. They also provide a model by which communities can retain a degree of power and participation, even in cases where foods or other consumables are sourced from around the world.

Co-operative Coffee, FCL's direct-sourced coffee brand, is an example of how community owners can promote the development of ethical and transparent relationships around food, regardless of its origin.

OUR SUSTENANCE

About

“Our Sustenance” is a community-based social enterprise in Six Nations of the Grand River, supported by a number of community organizations operating under the umbrella of Six Nations of the Grand River Development Corporation. It is dedicated to providing resources and programming to Six Nations community members in relation to garden production, food storage, healthy lifestyles, self-care, and traditional Haudenosaunee knowledge and values.

Their mission is to help the community restore interdependence with nature and take even greater strides towards self-empowerment, self-sufficiency, holistic well-being, and sovereignty.

Programs Offered

The Garden Café

- Educates community members on better ways to eat through convenient “Farm to Fork” options for breakfast and lunch.
- Serves fruits and vegetables grown in the greenhouse and on the land.

Greenhouse Operation

- Spans 12,000 square feet, with more than 30 types of vegetables or fruits grown.
- Sells produce to the community, and offers tours and education.

Poultry Farm

- Barn is currently being renovated to become a free-range poultry farm.
- Eggs are for sale to the public and are also used in the Garden Café.

Apiary and honey production

- The current apiary is being revitalized in partnership with the Humble Bee Inc.
- Bees pollinate the surrounding farmland and the honey is sold at the Garden Café.

Education

- Website provides educational workshops and resources about gardening, including: how to grow a garden, planting dates and times, traditional medicines, the Iroquois planting and agriculture system, and information about harvesting, storing, and preserving.

We lack appropriate methods for assessing food security in northern communities. Methods applied elsewhere do not reflect the various unique geographic and demographic contexts.

Canada is home to a vast diversity of urban, remote, rural, and Indigenous communities and each face a unique set of challenges and advantages related to food insecurity. Features such as geographic location, socioeconomic status, cultural considerations, and urbanity versus rurality, can impact how food insecurity is experienced and dealt with. Three of the 5 Ps in CFS—preference, power, and proximity—are all impacted, to some extent, by the scope and community setting. In some cases, the context-appropriate tools and data that would be necessary to craft new policies and programs for intervention do not exist. For example, we lack appropriate methods for assessing food security in northern communities; methods applied elsewhere do not reflect the various unique geographic and demographic contexts.¹⁶ The importance of wild, culturally-relevant foods, food sharing among families and neighbours, and the cost and quality impacts of long-distance shipping of market foods are all factors unique to northern communities; these have the potential to confound data collected with research methods designed for the south.¹⁷ Further, poverty and food insecurity may be more visible in urban communities in the form of overfull shelters and visible homelessness. This is in contrast to rural communities, where poverty may stay under the radar due to a lack of shelters, which can result in other forms of transient housing, such as “couch surfing.”¹⁸ Rural communities can be overlooked in discussions of food insecurity, due to their close association with agricultural production,¹⁷ when in fact, they are often particularly vulnerable due to heavy reliance on external food sources, transportation difficulties, and higher food costs.^{19, 20, 21, 22, 23}

Food security is even more challenging in northern and Indigenous communities in Canada.²⁴ There are many complex issues relating to the much higher rates of food insecurity in Canada’s Indigenous populations and northern regions. One important consideration is the lasting legacy of colonialism, with the displacement of countless Indigenous people during the European settlement of Canada, and continuing today in such forms as dramatic health disparities and economic inequities. Indigenous communities often work within a mixed cash-subsistence economy that involves both country foods and market foods. In terms of market foods, the remote location of many communities makes transport difficult and costly, leading to few available perishable food items and prohibitively high food pricing for all foods. Traditional foods are important for cultural identity, health, knowledge transmission, and nutrition in many rural communities.¹¹ Further, efforts to reduce food insecurity by introducing or encouraging community farming in Indigenous communities (where there is not necessarily a history of farming as the principal source of food) can be very effective in some communities; however, many communities strongly oppose such plans due to the colonial legacy of farming and the associated traumas of colonization.²⁵ Indigenous communities

are working to bridge these knowledge gaps by passing on traditional teachings, knowledge, experiences, and skills to future generations.²⁶ One such example of this is Our Sustenance, a Six Nations initiative focused on introducing healthy eating habits into the community, combined with traditional Iroquois agriculture methods and Haudenosaunee knowledge and values. This is further explored in Vignette 2.²⁷

Notwithstanding some improvements, the social, economic, and health indicators in [Indigenous] communities remain far below those of many other Canadians. Many [Indigenous] people in Canada, particularly those in remote communities, experience all or most aspects of food insecurity. This is attributable to low incomes, safety risks due to pollutants in the traditional food supply, quality problems associated with inappropriate shipping, handling and home preparation of commercial foods, and disruptions to access caused by interruptions in shipping or changes in animal migratory patterns. The cost of commercial food in remote communities is also high, as is the cost of supplies for fishing and hunting.

—Food and Agriculture Organization (FAO) of the United Nations



The most critical tension, from a social justice perspective, is the tension between the financial struggles of many primary producers and the financial struggles of the segment of the population that has insufficient income to purchase a basic healthy diet. Research in Nova Scotia consistently shows that households relying on the minimum wage or income assistance are not able to afford a basic nutritious diet once other essential needs are met.²¹ In 2012, only 13.5% of food system workers earned a living wage; 37.5% earned a poverty wage.³²

Distribution of Wealth and Income

Income levels often relate directly to food security as they can determine the extent to which people can participate in a healthy food economy. As such, income can be an important entry point for improving food security. Not only is raw income (or income level) important, but income in relation to the affordability and price of food, meaning the percent of income required to feed oneself, also affects CFS. There is a tension from a social justice perspective between the financial struggles of those who produce our food and the segment of the population that has the income to purchase a basic, healthy diet.

CFS researchers consider affordability in terms of differences in opportunities to purchase affordable, healthy food within and among communities.⁵ Food store audits conducted in rural areas often show that healthier versions of items are more expensive than unhealthier versions.²¹ Addressing the price of food, especially fruits and vegetables, is one way to increase people's access. For example, a 10% decrease in the price of fruits or vegetables in a community's food environment can translate into a 6–7% increase in fruit and vegetable purchases.²⁸ But, lower food prices on their own are not a solution, as they do not address other factors such as the distribution of wealth and income. They also do not address specific problems for northern communities, such as extremely high food prices due to the effective monopoly that the NorthWest Company holds over the community.²⁹

A basic income policy would be one way to help address this aspect of CFS and would be complementary to global human rights agendas that include the right to food. For example, the Basic Income Canada Network argues that while not all low-income households are food insecure, “modest changes in the incomes of very low-income households can have large effects on their probability of food insecurity.”³⁰ Low or declining incomes, relative to the rising cost of living incomes, are affecting the ability of residents, especially those relying on minimum wage or provincial assistance programs, to afford a nutritious diet.¹⁹ Canadians who are most vulnerable are those living in low income households, including a disproportionate number of single-parent mothers, people with chronic illness or disabilities, elderly residents, and Indigenous persons.¹² For example, people may have to use some or all of their personal allowance (a portion of their income assistance) for housing, as they do not receive enough to cover the cost of rent. Furthermore, recent changes to (un)employment insurance programs have made it more difficult for seasonal workers to access this income source, particularly in rural communities.

Precarious housing conditions are also a significant factor in food insecurity. Renting a home results in greater food insecurity, because owning a home provides financial leverage in emergency situations.¹⁹ As a result, renters make up two-thirds of food insecure households in Canada and one in four rented households are food insecure.¹³ Embedded within the CFS framework is the need to document income and working conditions to move toward providing fair wages and just working conditions for low-income groups seeking greater access to healthy foods.

Infrastructure

Various infrastructure components can also impact community food security, most specifically through the proximity of food production and availability. Accessibility is related to transportation, concentrations of poverty, and disparities in the availability of certain types of food stores, and food options available at those stores.⁵ Food deserts (when there is not enough accessibility) and food swamps (when there is an overabundance of unhealthy food retailers) are terms used to describe whether people in all neighbourhoods have equitable access to quality, preferred foods. These occur not just because of a lack of stores, but also because income prevents some people in a community from being able to use existing establishments. Food preference, which relates to culturally significant, nutritious, and diverse foods, can also be difficult to accommodate in some communities. Further, some research has indicated that people living in communities without supermarkets are 25–46% less likely to have a healthy diet than people with greater access to food stores.³¹ Transportation challenges (e.g., lack of a reliable vehicle) and distance to healthy food retailers may further limit access for low-income households, making them rely on the prolific convenience stores, liquor stores, and fast food establishments available at close proximity.⁵ Efficient public transit can be a community-based approach to improving food access.

A program initiated by Food First Newfoundland and Labrador called “Healthy Corner Stores NL” is an example of a CFS-level intervention to these challenges.³² This is in line with one of the goals of Canadian Food Centres Canada, which is to “meet people where they’re at,” in order to maintain relevance in programming and improving food security.³³ Since most communities in Newfoundland and Labrador use convenience stores as their primary source of food, the program is about using what already exists to maintain a sense of relevance for community members; it does not involve completely overhauling the existing food infrastructure (such as building new retail food stores). The SEED, a program in Guelph, Ontario (Vignette 3) provides yet another example of a small-scale community-based program that works to address issues of proximity and preference.³⁴

THE SEED

About

The SEED is a not-for-profit food project in Guelph created by a coalition of community organizations and individuals. It delivers community programs, operates social enterprises, works with community members, and advocates for systems-change. Many of the programs work to provide various points of access to healthy food. They also work to increase connectivity between producers and consumers, especially through the Guelph Youth Farm, which teaches youth where their food comes from.

The goal of the SEED is to make Guelph-Wellington the first community in Canada to eradicate food insecurity.

Programs Offered

Garden Fresh Box Increase access (physical and financial) to healthy food in Guelph.

- Boxes filled with fresh produce get delivered to 17 different pick-up locations once per month and are provided at a discount from retail value.

Guelph Youth Farm

- The half-acre farm plot in Guelph is devoted to youth leadership and food justice.
- Youth are trained to grow fresh vegetables, which are distributed through The SEED's community food markets, Garden Fresh Box, and the Good Food Distribution.

Community Food Markets

- Two locations provide a weekly, affordable fresh food market paired with activities and a community space aimed at breaking down social isolation.
- Items are priced on a sliding scale, from retail value to up to 30–50% below retail price.

Good Food Distribution

- A fresh food distribution warehouse that offers below-wholesale prices to Emergency Food Providers of Guelph.
- Partners with neighbourhood organizations and schools to provide fresh, healthy food.

Souper Heroes

- Sells hot soup and soup starters at markets, stores, and pop-up events; all proceeds go toward The SEED programming.

COMMUNITY FOOD CENTRES CANADA

Community Food Centres Canada (CFCC) builds and invests in centres and programs in low-income communities where food is used as a tool to build health, belonging, and social justice. There are 10 centres across the country (ON, AB, MB, NS, QC).

Programs funded and developed by CFCC strive to:

- alleviate the impacts of poverty and food insecurity through increased access to healthy food;
- support organizations to become leaders in community food security programming; and
- empower Canadians to advocate for policies that improve people's lives and reduce poverty and inequality.

Programs include:

Healthy Food Access

This program seeks to replace the traditional food bank model of food assistance with services such as affordable food markets and community kitchens. These create dignified spaces for community members to receive the support they need and also to be connected with other food and economic resources for improving their livelihoods over the long-term.

Food Skills

Food skills programs provide opportunities for people to learn how to become more food-empowered in their lives, whether in the kitchen or the garden. This can include opportunities to learn how to cook and preserve foods or support for community gardens. In addition to increasing access to healthy and nutritious food, food skill programs can also contribute to people's mental well-being.

Education and Engagement

These programs focus on offering skills training to community leaders and activists working in the food security and social justice space.

FoodFit

This is a 12-week program for low-income individuals struggling with barriers to healthy eating and physical activities. CFCC provides grants and guidance to community centres to implement the program, which was designed in consultation with public health and nutrition experts.

Market Greens

Market Greens is a pilot program designed to make fresh fruits and vegetables more affordable to low-income families.

Good Food Organizations Program

Aims to increase the capacity of community food security organizations through resources, training, grants, an annual conference, and opportunities to network and promote shared priorities.

For more information: <http://cfccanada.ca/en/Our-Work/Programs>

Social Capital and Community Self-Reliance

Three of the 5 Ps in the CFS process—power, participation, and proximity—all reflect the degree to which people in a community have access to the resources (social capital) and relationships (social networks) they need to collaborate on strong community food systems. Self-reliance, which describes the power to be in control over questions of proximity and propriety in the food system, can involve programs to develop food production knowledge, encourage small-scale food production, and support resource-sharing in communities.³⁵ The core activities for increasing community self-reliance through CFS include community supported agriculture (CSA) programs, farmers' markets, and gardens as methods to improve healthy food access.

Many communities are finding that empowering youth is a way to strengthen social capital and address food insecurity. Youth outmigration is a major challenge for many communities, especially rural ones. Programs that focus on teaching youth about food and the food system, including such food skills as cooking and planning, promote self-reliance in young people and encourage them to remain in and contribute to the success of their communities.

Youth centres are an effective way to engage youth and empower them to make decisions about their futures. “The Launch Pad” in Hanover, Ontario, provides youth 12–18 years of age, with important life and career skills through a wide range of youth focused training programs (such as welding class, music programs, and cooking school). The Launch Pad enhances student knowledge and learning in a fun, safe, and informative environment. A similar space exists in Ingersoll, Ontario, known as the “Fusion Youth Centre.”

Beyond these youth-focused centres, there are also larger models that exist across Canada, many of which focus specifically on food programming. Community Food Centres Canada, in Vignette 4, is a national model that provides food-focused community building centres in low-income areas.³⁵ Remote locations can also provide challenges for increasing self-reliance, as extreme climates can prove difficult for traditional activities in CFS (e.g., CSAs, gardens). There are a number of technologies however, that exist to increase the social capital of a community through food-based initiatives. These are described in Vignette 5 “The Case for Northern Food Production.”^{36, 37, 38, 39, 40}

KNOWLEDGE SHARING AND POLICY FOR IMPACT

There are numerous programs across the country dedicated to improving food security through community-based work; many of these programs are reporting successes with strengthening CFS. The challenge isn't necessarily that there are unknown solutions, but that there needs to be capacity building for the existing solutions—such as an enabler for community and policy action related to CFS. There are also difficulties with maintaining the labour and capacity to implement the programs—particularly in remote communities, where it's hard to get people to move to and/or stay in the community, and where young people, in particular, are prone to leaving for school and jobs. If there are opportunities to network, collaborate, and share, then people collaborating on CFS work can learn from each other, rather than unnecessarily replicating work and competing with each other.

There are several examples of this knowledge sharing work being done in North America: Food Secure Canada (FSC), the North American Food Systems Network, the Maple Leaf Centre for Action on Food Security, and The Regional Food Systems Working Group (RFSWG), funded by the Leopold Center for Sustainable Agriculture in Iowa are a few. Further information is provided in the sidebar, Knowledge Sharing Networks for Food Security. These groups have all made knowledge sharing between community food programs key parts of their priorities. An opportunity to increase the effectiveness of community food programs would be to streamline knowledge sharing through a national program, with platforms in each province/territory, to provide further, specified services.^{41, 42, 43}

There is also a key nexus between policy, funding, and capacity. Even though many CFS programs are not policy focused themselves, implementing policy solutions such as a basic income policy or a national food school program could help CFS programs to scale-out, both in their own regions, and beyond. The entire food system and CFS is dependent upon environmental, economic, and social policies at every government level. The degree of influence over these policies is determined by the strength and nature of the community partnerships formed.³²

There are similarities and potential for learning across programs: engaging community gardens and greenhouses, community farming, food boxes, education programs, and community-run markets and cafes, among others. Other key components of many programs are the idea of empowering youth to educate them about food and encourage them to be active participants and leaders; prioritizing local champions

THE CASE FOR NORTHERN FOOD PRODUCTION

Several northern communities are experimenting with different technologies to supplement their local food systems, from greenhouses to small-scale aquaculture. A common goal is to find ways to strengthen, rather than disrupt, local food economies, increase access to fresh foods, and also increase food system resilience and food sovereignty by emphasizing locally-led and controlled initiatives.

Some shared challenges include: the high costs of shipping technology and other supplies, the need to build local capacity to manage the projects, and the importance of integrating these solutions with local water and energy systems.

Inuvik (Nunavut) Community Greenhouse

The most successful and famous northern greenhouse; guaranteed growing season from mid-May to end of September.

Benefits: Increased community beautification projects and civic pride; enhanced tourism; heightened sense of community by local inhabitants; fosters community development and community outreach (garden club for children); and provides increased food security.

Churchill (MB) Growcer – “Rocket Greens”

A converted shipping container with a hydroponic vegetable-growing system.

Benefits: Improved food security (provides access to more abundant, cheaper, fresh, local food, which is produced year-round); diversification of diets through different vegetables (recipes and ideas are provided for uncommon items); and convenience (a subscription service delivers weekly produce to people’s homes, and some restaurants and grocery stores).

These are just two examples of technologies that exist (and work) to increase food production in the North.

COMMUNITY-SUPPORTED FISHERIES: ALL 5 PS IN ONE

The COVID-19 pandemic has revealed multiple vulnerabilities in food systems around the world, including reliance on distant suppliers and the “just-in-time” logistics that characterizes the majority of North America’s supply chain. Fisheries are an excellent example; with travel restrictions and stay at home orders, some major fisheries are closing, while prices for seafood are also dropping because of the temporary loss of restaurants and other hospitality markets. However, community supported fisheries (CSFs) are proving to be especially resilient and adaptable in the face of the pandemic.

CSF describes an alternative marketing strategy for small-scale fishers—they opt out of fishing for large-scale processors who package and ship fish around the world, and instead take over most or all of the supply chain, fishing, processing, and transporting seafood directly to consumers (*proximity*).

Many CSFs work much like their analogue in agriculture, wherein customers buy a share at the beginning of the season, and receive seafood periodically depending on what is caught and available. This provides some financial stability to fishers, who receive a better price for their seafood, and as such can pay their deckhands and other employees better wages. The customers, of course, gain through the high-quality food and the knowledge that they are supporting fishers who share their values for ethical and sustainable food (*preference, propriety*).

Local Catch (www.localcatch.org), a community of practice supporting fishers who are engaged in these alternative approaches, currently has over 400 members across North America who share numerous values for their practices, environmental sustainability, and ensuring community-based governance of seafood resources.

Many small-scale fishers are also finding that CSFs and other direct marketing alternatives are giving them more control over their livelihoods (*power*). Large-scale fishing firms are often vertically integrated, meaning that they own the boats, fishing quota, processing facilities, and so forth; as such, fishers around the world have increasingly had to lease their right to fish from these industrial giants. Small-scale fishers, through CSFs, are gaining a voice in ensuring more equitable access to fisheries. This is only possible, however, because consumers are signing on, *participating* in the emergence of this new model.

CSFs:

- Are embedded in their communities, run by owner-operators who live and work in the communities where they fish
- Are establishing shortened supply chains and strengthened producer-consumer relations that support transparency
- Come in many shapes, sizes, and business models, adding diversity to the food system and food economy
- Charge fair prices to support local economies, and increase the quality of life for all those involved
- Encourage more sustainable consumer preferences and practices when it comes to eating from aquatic environments.
- Respond to variability in the natural environment, such as seasonal changes in availability.

so that projects are successful through local members; becoming a hub in the community for connection through food to reduce social isolation and increase volunteerism; and adding social enterprise components to their program models to generate profit.

It is clear that a single solution that works for every community, for every community level does not exist. However, communities across the nation have implemented successful programs; with minor adjustments, these could be successfully implemented in other communities, as well. To improve community food security, it is important to integrate knowledge sharing to increase the effectiveness of local programs, as well as focus on driving policy and funding to introduce systemic change. Importantly, stakeholders must be included in order to bring about change.

KNOWLEDGE SHARING NETWORKS FOR FOOD SECURITY

The Maple Leaf Centre focuses on building partnerships with governments, universities, non-profit organizations, and businesses to increase collective impact. They also share information, resources, and lessons learned from their various partnerships through their online Learning Hub.⁴³

Food Secure Canada (FSC) is one of the foremost organizations working towards food security in Canada. It is a Pan-Canadian alliance of organizations and individuals working together to advance food security and food sovereignty. A recent FSC initiative is Vision 2020: A National Conversation about Food Security. This is a three-year project to bring together leaders from private, public, and civil society sectors across the country in a community of practice. The goal is to foster a deeper common knowledge of food security and identify opportunities to help the food movement grow together.⁴²

The Regional Food Systems Working Group (RFSWG) is a community of practice approach for actors in the food system in Iowa to come together and solve food problems, rather than doing work in a fragmented, isolated way. By the spring of 2011, 83 of 99 of Iowa's counties were part of the RFSWG and continue to share information and resources.

TAKING ACTION FOR COMMUNITY FOOD SECURITY

The community level of analysis brings focus to the roles of federal and provincial governments in addition to the roles of municipalities, and the non-profit and private sectors.

Community-level action on food security will need to involve increased coordination between schools, health care institutions, housing rights, employment support clinics, academics, and government, among others. It requires a renewed focus on the roles of federal and provincial governments, in addition to the roles of municipalities and the non-profit and private sectors. There are a variety of ways each group can work to take action for CFS, some of which are highlighted below.

TABLE

Group	Action Items
<p>Academics</p>	<ol style="list-style-type: none"> 1 Research on CFS and the 5P framework as an appropriate lens for analysis and intervention. 2 Sharing research and networking through conference presentations. 3 Journal or funding organizations to publish a “Call for Action” regarding the need for further applied research (such as field work on the efficacy of the 5P framework).
<p>Corporate Food Sector (includes co-ops, etc.)</p>	<ol style="list-style-type: none"> 1 Work to create and demonstrate the business case for helping to address food security through philanthropy or Corporate Social Responsibility policies. 2 Create increased partnerships with researchers by providing funding, access to resources, opportunities to pilot studies, and to develop impactful research.
<p>Media/Story Tellers</p>	<ol style="list-style-type: none"> 1 Continued coverage of the problem. Sharing of stories gives the ability to clearly see the scale and scope of the problem and attaches a “human face and place” to the issue. It gives those with lived experience a voice and creates “ground swell” to give priority to the issue.
<p>Municipal Government</p>	<ol style="list-style-type: none"> 1 Provides an opportunity to have “front porch conversations” and set priorities and bylaws that tie directly to the community. Also relates to and is impacted by provincial and federal governments.

Funders	<ol style="list-style-type: none">1 Encourage more research on food security that is practical and impactful.2 Encourage alignment between key performance indicators and outcomes.3 Create systems for researchers to keep funders up to date, so their mandates and funding opportunities are fluid and responsive.
CFS organizations	<ol style="list-style-type: none">4 Help share knowledge of other complimentary work and examples of successful programs.5 Create connections amongst researchers in various communities.6 Apply for funding and help set funding priorities.

While there are many other important groups to be involved, it will undoubtedly take a coordinated effort to properly address food security at the community level.

ACKNOWLEDGEMENTS

Workshop Summary

This discussion paper is part of a series of papers being produced by Arrell Food Institute and the Research Innovation Office at the University of Guelph. Under the scientific direction of Dr. Philip Loring (U of Guelph), this discussion paper was written and researched by Wilton Consulting group (<http://www.wiltongroup.ca>) and Synthesis Agri-Food Network (<http://www.synthesis-network.com>), following a series of workshops with invited experts.

Workshop Participants

Attendees of the two workshops who helped form and edit the discussion paper consisted of academics, technical experts, government, and industry. We wish to thank all participants for their insight: Thomas Armitage (SEED), Evan Fraser (U of Guelph), Craig Gerlach (U of Calgary), Cathy Kennedy (City of Guelph), Sam Laban (CESI and Guelph Lab), Matthew Little (U of Guelph), Merryn Maynard (U of Waterloo), Sasha McNicoll (Community Food Centres Canada), Erin Nelson (U of Guelph), Hannah Tait Neufeld (U of Guelph), Kathryn Scharf (Community Food Centres Canada), Jennifer Silver (U of Guelph), Kelly Skinner (U of Waterloo), John Smithers (U of Guelph), Emma Stephens (Pitzer College), Sarah Stern (Maple Leaf), and Barb Swartzentruber (City of Guelph).

Special Thanks

We would like to extend special thanks to the Wilton Consulting Group and Synthesis Agri-Food Network.

Thank you as well to Alice Raine, Elizabeth Shantz, Alysa JK Loring, and the University of Guelph for administrative support. The Spotlight projects have been developed with the Research Innovation Office at the University of Guelph.

REFERENCES

- ¹ Government of Canada. 2012. "Determining Food Security Status." Webpage. Available at: <https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview/determining-food-security-status-food-nutrition-surveillance-health-canada.html>
- ² Dieticians of Canada. 2016. "Addressing Household Food Insecurity in Canada: Position Statement and Recommendations." Webpage. Available at: <https://dcjournal.ca/doi/full/10.3148/cjd-pr-2016-019>
- ³ Hamm, M.W., and Bellows, A.C. 2003. "Community Food Security and Nutrition Educators." *Journal of Nutrition Education and Behavior*, 35(1):7–43. <https://dcjournal.ca/doi/full/10.3148/cjdpr-2016-019>
- ⁴ Kloppenburg, J., Hendrickson, J., and Stevenson, G.W. 1996. "Coming into the Foodshed." *Agriculture and Human Values*, 13(3).
- ⁵ Kaiser, M. 2017. "Redefining Food Security in a Community Context: An Exploration of Community Food Security Indicators and Social Worker Roles in Community Food Strategies." *Journal of Community Practice*, 25(2). <https://www.tandfonline.com/doi/full/10.1080/10705422.2017.1308897>
- ⁶ Feenstra, G. 1997. "Creating Space for Sustainable Food Systems: Lessons from the Field." *Agriculture and Human Values*, 19.
- ⁷ Vital Signs Canada and Community Foundations Canada. 2015. "Taking the Pulse of Community Foundation Food Activity Across Canada: A Follow up to Fertile Ground." Available at: https://www.communityfoundations.ca/wp-content/uploads/2019/05/PROG_Food_VSUpdate_EN.pdf
- ⁸ FAO. 2008. "An Introduction to the Basic Concepts of Food Security." Rome, Italy: Food and Agriculture Organization of the United Nations. Available at: <http://www.fao.org/3/al936e/al936e00.pdf>
- ⁹ Hamm, M.W., and Bellows, A.C. 2003. "Community Food Security and Nutrition Educators." *Journal of Nutrition Education and Behavior*, 35(1):7–43. <https://dcjournal.ca/doi/full/10.3148/cjdpr-2016-019>
- ¹⁰ Martorell, H. 2017. "Policy Responses to Food Insecurity in Canada." Report: FLEdGE and Food Secure Canada. Available at: https://foodsecurecanada.org/sites/foodsecurecanada.org/files/files/discussion_paper_policy_responses_to_food_insecurity_in_canada_2017.pdf
- ¹¹ Power, E. 2008. "Conceptualizing Food Security for Aboriginal People in Canada." *Canadian Journal of Public Health*, 99(2).
- ¹² Agriculture and Agri-food Canada. 2008. "Canada's Fifth Progress Report on Food Security." Follow up to the Implementation of the World Food Summit Plan of Action. Available at: http://www5.agr.gc.ca/resources/prod/doc/misb/fsec-seca/pdf/1245790426228_rpt_5_e.pdf
- ¹³ PROOF Food Insecurity Policy Research. 2018. "Household Food Insecurity in Canada." Webpage. Available at: <https://proof.utoronto.ca/food-insecurity/>
- ¹⁴ Roshanafshar, S., and Hawkins, E. 2018. "Health at a Glance: Food Insecurity in Canada." Webpage. Available at: <https://www150.statcan.gc.ca/n1/pub/82-624-x/2015001/article/14138-eng.htm>
- ¹⁵ Government Canada. 2019. "Introducing a Food Policy for Canada." In: *Budget 2019, Chapter 4: Delivering Real Change. Part 1: Health and Well-Being*. Webpage. Available at: <https://budget.gc.ca/2019/docs/plan/chap-04-en.html#Introducing-a-Food-Policy-for-Canada>
- ¹⁶ Skinner, K., Burnett, K., Williams, P., Martin, D., Stothart, C., LeBlanc, J., Veeraghavan, G., and Sheedy, A. 2016. "Challenges in Assessing Food Environments in Northern and Remote Communities in Canada." *Canadian Journal of Public Health*, 107(Suppl. 1):5324. <https://link.springer.com/article/10.17269/CJPH.107.5324>
- ¹⁷ McEntee, J., 2010. "Contemporary and Traditional Localism: A Conceptualisation of Rural Local Food." *Local Environment: The International Journal of Justice and Sustainability*, 15(9–10): 785–803. <https://www.tandfonline.com/doi/full/10.1080/13549839.2010.509390>
- ¹⁸ Andrée, P., Langille, L., Clement, C., Williams, P., and Norgang, E. 2016. "Structural Constraints and Enablers to Community Food Security in Nova Scotia, Canada." *Journal of Hunger and Environmental Nutrition*, 11(4): 456–490. <https://www.tandfonline.com/doi/full/10.1080/19320248.2016.1157547>
- ¹⁹ Liese, A.D., Weis, K.E., Pluto, D., Smith, E., and Lawson, A. 2007. "Food Store Types, Availability, and Cost of Foods in a Rural Environment." *Journal of the American Dietetic Association*. <https://www.sciencedirect.com/science/article/pii/S0002822307016227>
- ²⁰ Morton, L.W., and Blanchard, T.C. 2007. "Starved for Access: Life in Rural America's Food Deserts." *Rural Realities*, 1(4): 1–10. Rural Sociological Society. Available at: https://www.iatp.org/sites/default/files/258_2_98043.pdf
- ²¹ Dieticians of Canada. 2012. "Cost of Eating in British Columbia." Dietitians of Canada. Website. Available at: <http://www.dietitians.ca/Secondary-Pages/Public/The-Cost-of-Eating-in-British-Columbia.aspx>
- ²² Smith, C., and Morton, L., 2009. "Rural Food Deserts: Low-income Perspectives on Food Access in Minnesota and Iowa." *Journal of Nutrition Education and Behavior*, 41(3): 176–187. <https://www.sciencedirect.com/science/article/abs/pii/S1499404608007562>
- ²³ McEntee, J. 2011. "Realizing Rural Food Justice: Divergent Locals in the Northeastern United States." In: Alkon, A., and Agyeman, J.J., eds. *The Food Justice Reader: Cultivating a Just Sustainability*. Cambridge: MIT Press. 239–260.
- ²⁴ Loring, P., and Whitely, C. 2019. "Food Security and Food System Sustainability in North America." In: Ferranti, P., Berry, E.M., and Anderson, J.R., eds. *Encyclopedia of Food Security and Sustainability*, 3. Elsevier. 126–133.

²⁵ Spiegelaar, N.F. and Tsuji, L.J.S. 2013. "Impact of Euro-Canadian Agrarian Practices: In Search of Sustainable Import-substitution Strategies to Enhance Food Security in Subarctic Ontario, Canada." *Rural and Remote Health*, 13(2): 2211. PMID: 23656359

²⁶ Delormier, T., Horn-Miller, K., McComber, A., and Marquis, K. 2017. "Reclaiming Food Security in the Mohawk Community of Kahnawà:ke Through Haudenosaunee Responsibilities." *Maternal and Child Nutrition*. <https://onlinelibrary.wiley.com/doi/full/10.1111/mcn.12556>

²⁷ Six Nations. 2019. "Our Sustenance." Webpage. Available at: <http://oursustenance.ca/>

²⁸ Guthrie, J.F., Frazão, E., Andrews, M., and Smallwood, D. 2007. "Improving Food Choices—Can Food Stamps Do More?" *Amber Waves*, 5(2): 22–28. United States Department of Agriculture. Available at: <https://www.ers.usda.gov/amber-waves/2007/april/improving-food-choices-can-food-stamps-do-more/>

²⁹ The Food Chain Workers Alliance. 2012. "The Hands that Feed Us: Challenges and Opportunities for Workers Along the Food Chain." Available at: <http://foodchainworkers.org/wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf>

³⁰ Basic Income Canada Network. 2017. "Food Insecurity." Webpage. Available at: https://www.basicincomecanada.org/basic-income_primers

³¹ Moore, L.V., Diez-Roux, A.V., Nettleton, J.A., and Jacobs, D.R. 2008. "Associations of the Local Food Environment with Diet Quality—A Comparison of Assessments Based on Surveys and Geographic Information Systems." *American Journal of Epidemiology*, 167(8): 917–924. <https://academic.oup.com/aje/article/167/8/917/85595>

³² Food First NL. 2019. "Healthy Corner Stores NL." Webpage. Available at: <http://www.foodfirstnl.ca/our-projects/healthy-corner-stores-nl>

³³ Community Food Centres Canada. 2019. "Our Work." Webpage. Available at: <https://cfccanada.ca/en/Our-Work>

³⁴ The SEED. 2019. "What is the SEED?" Webpage. Available at: <https://www.theseedqueph.ca/about>

³⁵ Hamm, M.W. 2009. "Principles for Framing a Healthy Food System." *Journal of Hunger and Environmental Nutrition*, 4(3–4): 241–250. <https://www.tandfonline.com/doi/full/10.1080/19320240903321219>

³⁶ Skinner, K., Hanning, R.M., Metatawabin, J., and Tsuji, L.J.S. 2014. "Implementation of a Community Greenhouse in a Remote, Sub-Arctic First Nations Community in Ontario, Canada: A Descriptive Case Study." *Rural and Remote Health*, 14(2): 2545. PMID: 24959925

³⁷ Iqaluit Community Greenhouse Society. 2019. "About." Webpage. Available at: <https://iqaluitgreenhouse.com/about/>

³⁸ Inuvik Community Greenhouse. 2017. "2017 Member's Manual." *Home of the Community Garden Society of Inuvik* (CGSI). Available at: <https://www.inuvikgreenhouse.com/wp-content/uploads/2017/05/2017-GH-Membership-Booklet-april-4.pdf>

³⁹ Maclean, C. 2018. "Churchill Hydroponic Garden Project Serves up Fresh Greens in Northern Town." CBC News. 4 January 2018. Available at: <https://www.cbc.ca/news/canada/manitoba/churchill-vegetables-shipping-container-cnsc-1.4473799>

⁴⁰ Selden, S. 2019. "Churchill's Rocket Greens Growing Great." *Churchill Polar Bears: Dispatches from the Polar Bear Capital of the World*. 19 February 2019. Available at: <http://churchillpolarbears.org/tag/rocket-greens/>

⁴¹ Maple Leaf Centre for Action on Food Security. 2019. "Feed Opportunity: Who We Are." Webpage. Available at: <https://www.feedopportunity.com/en/#!page=who-we-are>

⁴² Food Secure Canada. 2019. "National Community of Practice on Food Security." Webpage. Available at: <https://foodsecurecanada.org/community-networks/national-community-practice-food-security>

⁴³ Pirog, R., and Bregendahl, C. 2012. "Beyond the West: Networks, Food Hubs, and Rural Wealth Creation." *Rural Connections*, 6(2). Available at: <https://www.tandfonline.com/doi/full/10.1080/19320240903321219>

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