Cultivating Food Sovereignty and Sustainable Food Systems in the North: A Review and Recommendations
Acknowledgements

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Photo Credit: Katelyn Friendship
The past few decades have brought great economic, environmental and social changes to the North, all of which have deeply impacted northerners’ access to and their relationships with food. Canadians are becoming more aware of the challenges within northern food systems; increasingly we hear stories in the media about high food costs, limited access to healthy and culturally appropriate foods, and the devastating impacts of climate change in the North. This increased attention has brought food systems issues to the forefront of political discussions, but what these conversations often lack, are the voices of the North and coordinated efforts towards policy and program solutions that consider social and environmental sustainability over the long-term. Time and time again, policies and decisions developed in the south are imposed on northern communities, with decision-makers having little to no understanding of northern contexts within which people live.

This document is a summary of a collaborative project that used a community-based approach to better understand the challenges within northern food systems, and determine what action could be taken at the federal level to support more robust, sustainable food systems across Canada’s northern regions. The project was coordinated by Food Secure Canada and included a team of academics, as well as community collaborators from across northern Canada. The focus was on the three territories (Yukon, Northwest Territories and Nunavut) and the negotiated land claims regions of Inuit Nunangat (Inuvialuit Settlement Region, Nunavut, Nunavik, Nunatsiavut). The team started from the belief that any attempts to strengthen Northern food systems and address food insecurity must be rooted in community, enabled by Indigenous knowledge, and be paired with northern-focused economic development strategies. Every region has its own unique context and there is no “one size fits all” approach for addressing issues such as food security and sustainable food systems.

INTRODUCTION

This study focuses on specific jurisdictions within the Canadian North, including three Territories [Yukon, Northwest Territories (NWT), and Nunavut], and four Inuit land claim regions [Inuvialuit Settlement Region (ISR), Nunavut, Nunavik, Nunatsiavut; collectively termed ‘Inuit Nunangat’].

Yukon: 15 communities; 14 First Nations (11 hold self-government agreements)
NWT: 33 communities; seven regional Indigenous governments (including ISR).
Inuit Nunangat: 53 communities; 35% of Canada’s landmass and 50% of its coastline. The ISR is located entirely within the NWT, and Nunavut is both a Territory and a land claim region. Nunavik and Nunatsiavut are self-governing regions with levels of autonomy similar to those of provinces and other territories; however, they are still officially considered part of the provinces of Quebec (Nunavik) and Newfoundland (Nunatsiavut).

NWT and Yukon have signed devolution agreements with the federal government, garnering control of land and resource management; Nunavut is currently in the midst of devolution negotiations.

The resultant diversity of legal and regulatory structures leads to significant differences between northern regions, further complicating food system contexts and sometimes causing a disconnect with federal government policies and access to government programs and services.

Figure 1: Map of Canada’s Northern Regions
Northern food systems comprise of traditional foods, locally-grown foods, as well as imported (market-based) foods. Different segments of the population rely on different parts of the food system. For example, Indigenous peoples are largely reliant on the traditional land-based food system, while settler people who live in the North, may place greater value and dependency on the locally-grown food system. Today, most communities are also heavily dependent on the market-based food system.

Northern food systems encompass a complex web of interconnected social, political, economic, cultural and environmental issues; as well as relationships, networks and histories. Food is a foundation for healthy lives, communities, economies and ecosystems. For Indigenous people, food is often described as central to identity and cannot be disconnected from the activities and processes that are involved in procuring and preparing it. The importance of culture, spirituality and Indigenous knowledge are intricately linked to food.

In Canada’s North, far too many people are food insecure or are at risk of becoming food insecure. This means that they are unable to access sufficient affordable, healthy foods that meet their physical, cultural, social, and economic needs to live an active and healthy life.

While the levels of severity vary across regions, food insecurity rates in the North are among the highest in Canada. In 2013-14 household food insecurity levels in Nunavut were at 47%; and over 60% of Nunavummiut children under 18 were living in food insecure households. Indigenous peoples in the North, by far, face the highest rates of food insecurity in Canada.
The high cost of market-based foods in the North is commonly identified as one of the key determinants of food insecurity. Food costs remain exponentially higher in northern remote communities, posing significant challenges in terms of both accessibility and affordability.

For many communities in the North, access to affordable imported foods is hampered by their remote location, small populations, adverse weather conditions, and distance from distribution and resupply centres, which are mainly located in southern Canada. While these conditions undoubtedly increase costs, food prices in the North are exceedingly high, despite government intervention attempts.

At the same time, it is impossible to talk about food in isolation, as the production, harvest and consumption of food is inherently connected to and founded in a diversity of cultural, economic, and social practices and meanings. High rates of food insecurity are connected to broader socio-economic inequities including poverty, unemployment, lack of land-based education and post-secondary education opportunities, crowded and substandard housing and youth suicide rates. For instance, while only 9% of all Canadians live in crowded housing, this number jumps to 52% percent for Inuit in Inuit Nunangat. Similarly, while 86% of all Canadians aged 25-64 have earned a high school diploma, only 35% of Inuit in Inuit Nunangat within that age group have a high school diploma. One statistic in particular helps to highlight the disparity between Inuit and non-Inuit populations living in Inuit Nunangat: the 2016 median income (before tax) for Inuit was $23,485, compared to $92,011 for non-Indigenous residents.

For Northern Indigenous Peoples, food security is more than just having a full stomach; food is linked to identity, culture and way of life. Food is central to the physical, emotional, spiritual, and mental health of Indigenous Peoples. It is an issue tied closely with survival and rights of self-determination.

Figure 2: Framework for food security and food sovereignty in Northern Canada
Many of these current challenges are connected to historical and ongoing processes of settler-colonialism (including residential schools, the reserve system, and the outlawing of traditional cultural practices), and the continued discrimination against and oppression of Indigenous peoples in Canada today.

Climate change is also having profound impacts on both ecosystems and traditional food sources across the North. Parts of northern Canada have seen an increase in temperature roughly four to five times greater than the global average over recent decades, leading to current and projected changes, including escalated permafrost thaw, degrading sea ice conditions, changing wildlife migration patterns, increasing intensity and frequency of wildfires, and diminishing water availability. These changes have direct and often negative impacts. They can affect key food sources for wildlife species, drive increases in predator populations, and enable the introduction of new species into the region, all of which has implications for the availability of and human access to traditional foods.

With these are disheartening statistics, it is easy to focus solely on the challenges and barriers facing northern communities. While attempts to strengthen and build sustainable food systems in the North cannot be separated from these deeper structural issues, northerners and Indigenous peoples are not merely victims of a failing food system. They are actively engaged in re-creating their food systems, reviving traditional practices and adapting to changing social and environmental contexts. Despite the many challenges, there is much cause for optimism and hope, as communities, organizations, and small businesses are engaged in innovative, creative and locally-driven projects and collaborations that are taking meaningful steps to strengthen northern food systems.

A sustainable food system is one that meets the needs of a community without jeopardizing the ability of future generations to meet their needs. Key to this discussion is the notion of self-determination; northern and Indigenous communities must be empowered to decide for themselves what sustainability means and what they envision for the future of their food system. Indigenous knowledge has much to contribute in the movement toward environmental sustainability. It is based on interwoven understandings of social, economic and ecological changes over time, and is rooted in an understanding of how to live in balance with nature, including the ability to adapt to changing climatic and environmental conditions.

The following pages summarize the key challenges and opportunities facing particular aspects of northern food systems: Harvest and Production, Processing, Distribution and Transformation. The final section outlines key recommendations for federal policies and programs to better support sustainable food systems in the North.

### WHAT’S HAPPENING TO THE CARIBOU?

Caribou is a culturally and spiritually important species to Indigenous peoples of the North. Recent studies have reported significant decreases in many of the herds in NWT. Once numbering in the millions, barren-ground caribou populations have declined over 70% in northern Canada over the last two decades. Although natural cycles of caribou populations have been observed, pressure from climate change, development, hunting and predation continue to threaten these populations. Caribou rely on lichens as their major food source, particularly during the winter. Typically, lichens are associated with older forest stands throughout the boreal forest.

The boreal forest is expected to experience more fires, which will have a negative impact on lichen communities and decrease the amount of suitable winter habitat available to caribou.
Northern food systems have unique characteristics compared to other regions of Canada; particularly for Indigenous populations, who rely on a mixed diet of both traditional foods, as well as market (imported, store-bought) foods and local foods. While market foods are sold across the North, traditional foods procured through hunting, foraging and harvesting, remain a strong pillar of northern food systems. Across the North, communities experience geographic and seasonal differences in terms of food availability and access. For example, in remote Inuit communities, country foods account for 40% of food energy, while near cities, this is reduced to 6%\textsuperscript{26}.

Harvesting from the land has important nutritional, physical fitness and social benefits. Harvesting and food preparation activities bring people together, building relationships, supporting the exchange of knowledge, and strengthening spiritual connections to the land. Fishing, hunting, and collecting wild foods are essential to the economies of many, if not most communities located across Canada’s North. Sharing food is an important part of local economies.

The traditional way of life has declined in many instances, largely because of the high costs of getting out on the land. Expenses associated with fishing and hunting equipment, fuel, and time taken off work to go harvesting are high. Changing environmental and socio-cultural conditions are resulting in fewer young people getting out on the land and learning land-based skills. This is causing a shift in diet, which is having an impact on northerner’s health, including an increased risk for diet-related health issues such as nutrient deficiencies, obesity, and chronic diseases like cardiovascular disease, diabetes, and cancer\textsuperscript{16,27,28,29}. Compared with the Canadian national average, Inuit-inhabited areas have life expectancies that are 12.6 years lower (approximately 67 years in 2001)\textsuperscript{30,31}, which may be attributed to poorer diets. This decline can be found across other Indigenous populations in Canada, where less wild foods are being consumed and there is a greater reliance on imported, market-based foods.

Production of and access to quality, affordable market foods in the North for many communities is hampered by their remote location, small populations, adverse weather conditions, and distance from distribution and resupply centres, which are mainly located in southern Canada. While these conditions undoubtedly increase costs, food prices in the North are unacceptably high, despite government intervention attempts.

While harvesting activities have declined, there are a variety of initiatives at the community and government levels to revitalize traditional food practices. For example, supporting on-the-land programs that focus on training young harvesters. These types of community-based programs ensure the flow of traditional knowledge between generations and are important for transmitting the skills needed to bring food into a community.

\textbf{WHAT IS A TRADITIONAL DIET?}

Traditional foods (also known as country foods) are the wild-harvested foods from the land, water and sky, that are procured and consumed by Indigenous peoples (including Inuit, First Nations and Métis). A traditional diet may include large and small wild game (e.g. moose, muskox, caribou, muskrat, beaver, rabbit/hare), fish and marine animals (e.g. Arctic char, salmon, trout, seal, walrus, and whale), birds (e.g. ptarmigan, goose and duck) and their eggs, and seasonal wild berries and plants (e.g. cranberries, cloudberries, seaweed, lichen).
As with much of the economic activity within northern and Indigenous communities, food systems within the North also exist within a mixed-economy framework. There is a small agricultural sector in both Yukon and Northwest Territories, with mostly small-scale farms. In addition to the subsistence and community-scale harvesting of wild foods, there are also some commercial harvesting activities across the North. This includes sealing, fisheries, as well as the collection and sale of berries and mushrooms. Sustainable, Indigenous-managed commercial and small-scale fisheries can be a vehicle for increased traditional country food production, food sovereignty, and community economic development. The sustainable commercialization of other wild foods has been proposed by some as a possible means to address the challenge of wage-labour-oriented economies, and the continued interest in accessing traditional foods in northern communities. Promoting the social or informal economy of sharing, which is foundational in northern food systems may be more culturally appropriate and beneficial to communities.

Recently, there has been increased attention in the media focused on the potential role of new growing technologies to address food security in the North. These include heated greenhouses and various hydroponic systems to grow vegetables indoors. Community perspectives suggest that there is promise and potential in growing culturally appropriate foods such as root vegetables, rather than leafy greens, which are typical of greenhouse and hydroponic systems. Community gardens and greenhouses also have the potential to be an important source of healthy foods. There are community greenhouses and gardens across Yukon, Northwest Territories and Inuit Nunangat. Support for animal husbandry has also been identified as important.

The distinction between commercial, community, and subsistence production is much more fluid and nuanced than in other parts of Canada. The financial viability and sustainability of farms in the North is also a concern and highlights the importance of government support and intervention. Access to suitable agricultural land is a challenge in many parts of the North. In some areas, arsenic and sulphur dioxide contamination from mining and poor soil quality are barriers to both growing food and harvesting wild plants. A tension may also exist between local producers selling their products for a price that enables them to earn a living, and subsidized imported foods sold in traditional retail markets.

Increasing access and affordability, and improving the ability to produce vegetables, fruits and meats, as well as harvest wild foods can have a meaningful impact on food insecurity and overall quality of life within northern and Indigenous communities.
GROWING IN THE NORTH

Many community gardens and greenhouses have become hubs for food processing and preservation, including canning and drying vegetables. In 2016/2017 the Inuvik Community Greenhouse (est. 1998) offered a series of seminars on gardening and food preservation to encourage gardening in the communities of Inuvik, Fort McPherson, Tuktoyaktuk, Aklavik, Tsiigehtchic, Paulatuk, Ulukhaktok and Sachs Harbour. The food preservation workshops incorporated both freshly grown produce and locally harvested fish and meats. “Garden society members were excited and very interested in how they could use locally grown vegetables, in combination with locally harvested meat, to enhance their traditional diets”

The Northern Farm Training Institute (NFTI) (est. 2013), located in Hay River NWT, is a non-profit society founded by local Métis and northern farming expert, Jackie Milne. NFTI uses a mixed farming operation that provides farm training to individuals and communities across the North. NFTI has trained over 150 people through various programs on northern sustainable agriculture, 13 of whom have gone on to start their own local food businesses.

The Tr’ondëk Hwëch’in Teaching and Working Farm (est. 2014), is a partnership between Tr’ondëk Hwëch’in (TH) First Nation and Yukon College near Dawson City. Beginning in 2016, groups of students - primarily Indigenous youth - are being taught a diversity of farm and homesteading skills. The TH Farm also produces fresh vegetables, eggs, whole chickens and pork products that are available for sale locally.
Beyond the primary production and harvest of food, strengthening capacity to store, transport and transform foods is a key part of strengthening northern sustainable food systems.

Given the short season for agriculture, hunting, and fishing, processing and storing are key to local and regional food systems in the North. Processing can include freezing, canning, drying, slaughtering and butchering, as well as generating prepared foods. Not only does processing increase the life-span of locally and regionally produced and harvested foods, it also increases the value of these products. While there are some existing opportunities to scale-up local food production and harvest for sale within the North, significant barriers to processing, transportation and distribution remain. Coupled with a lack of food processing infrastructure, the existing food safety regulatory framework and transportation network limit trade between and among territories and regions.

While the processing and value-added capacity of northern fisheries is slightly better, processing and distribution infrastructure is limited, impacting the ability to support more localized and regional consumption of these products. Processing, storing and distribution infrastructure is needed not only to support larger-scale commercial activities, but also subsistence and small-scale food provisioning. For example, the Nunavut Fisheries Strategy highlights the need for off-loading facilities for fishing boats, community storage and freezers. Smaller-scale processing infrastructure is needed to cut and wrap fish and meat, as well as dry and can other food products. Similarly, the Yukon Local Food Strategy promotes the development of community processing kitchens for both harvesters, gardeners and small-scale farmers.

In response to these challenges, territorial governments have made efforts in recent years to boost the processing capacity within northern food systems. The Nunavut government is actively promoting and seeking foreign investment in fish processing to boost economic development in the region. In Yukon, the territorial government initiated a mobile abattoir. While it does not carry federal inspection (meaning the meat processed in the facility cannot be sold across territorial or provincial lines) it does provide an important mechanism for local producers and harvesters to add value to a diversity of food products.
Transportation

The state of transportation infrastructure and services varies considerably across the North. Some communities benefit from investment in transportation infrastructure and services associated with legacy or ongoing military, government or industrial investment. Others have limited capabilities beyond those needed to provide basic services. For instance, Yukon and Northwest Territories have a modest road network, while in Nunatsiavut, transportation to communities is only by air or sea.

Investments in transportation, energy and internet infrastructure would go a long way to levelling the playing field and encouraging a greater diversity of retail models in the North. In addition, federal support for programs that subsidize transportation costs between harvest, processing, and retail/distribution locations, both within and beyond the North, would help address a key bottleneck in scaling up commercial harvesting and agricultural activities.

Access

Overall, the food retail environment is dominated by a small number of large companies that import food from the south and a much smaller, marginal sector that supports the distribution and exchange of locally-produced and harvested foods. While urban centers such as Yellowknife, Iqaluit, Whitehorse and Dawson City also have local independent food retailers, many of the smaller northern communities only have access to one or two choices. Current food systems in the North does not encourage competition within the food retail sector, and it makes it difficult for new, smaller operations to establish themselves. This places consumers at the mercy of retailers that may have limited incentive to offer competitive prices. Several new retail models have emerged in recent years, offering new options for accessing imported food products. These include internet-based businesses as well and non-profit models. Many of the alternative retail and distribution options rely on imported foods and are not yet available to all communities across the North, particularly the more remote communities that are most likely to have only one dominant food retailer. Bringing together the elements of both the market-based and traditional food systems into one that is optimal for the community, is what has been referred to as “best of both worlds”. Food hubs are one innovative solution for both the selling and sharing of food throughout the region and support both the formal and informal economies.

In many parts of the North, Hunter Support Programs offer an innovative blending of market and subsistence or sharing economies. Funds are used to support the harvesting activities of hunters who then supply meat to community members.

Within Indigenous cultures there is a commitment to sharing traditional foods; many oppose selling country foods, as it goes directly against traditional values. The challenge for many is having the means (money and time) to go out and harvest food, and to do so in a way that enables people to continue to share it.

In 2017, the main food retailers stores in the North included:

**North West Company (Northmart/Northern Store):**
- NWT: 17 locations
- Nunavut: 21 locations
- Nunavik: 9 locations
- Nunatsiavut: 2 locations

**Arctic Co-op:**
- NWT: 8 locations
- Nunavut: 23 locations
- Yukon: 1 location

In Nunavik there is also the Federation de Cooperative du Nouveau-Québec, a network of 14 cooperatives.
Summary of Northern Food System Key Barriers

Figure 3: Key barriers to northern food systems
NORTHERN FOOD GOVERNANCE & FEDERAL FOOD POLICY

The historical and existing governance context shapes and constrains northern food systems in a number of ways. The federal, provincial and territorial governments each hold responsibilities for developing and implementing various pieces of legislation, regulations, policies and programs. In addition, land claim settlements have established co-management boards for certain wildlife species. While sometimes complimentary, it is common for policies and programs from different levels of government to be driven by competing interests and rationales, and be at odds with one another. Despite the complexity in the policy environment, a common underlying challenge for the North is that policy is often defined first in southern Canada, with little consideration for the northern context. Decentralized governance models may have greater flexibility to support the unique contexts in the North.

Recent efforts to develop regional food security and local food system strategies can act as a foundation for guiding higher-level policy development. Regional strategies and action plans offer an important guiding framework for federal policymakers and provide an opportunity to engage with regional stakeholders that are actively involved in food security and sustainable food system efforts. In addition to government-led initiatives, community-driven policy-building activities have generated a range of policy and program proposals to better support and cultivate sustainable food systems in the North.

One of the most challenging issues is the connection between local needs and higher-level policy. Food-related programming exists in most if not all communities; however, it is generally ad hoc and inconsistently supported by both human and financial resources. There is a continued need to streamline the communication of needs and priorities from the ground-up in a way that has policy influence and leads to tangible action. This requires a coordinated, but flexible approach, recognizing that there is no one-size fits all policy solution. Particularly at the federal level, the emphasis should be on creating supportive frameworks that enable communities to take control of their food system, while providing capacity and resources to put their plans into action.
A Vision for Northern Food Systems

A sustainable and diversified food system (integrating traditional wild foods, local production and market foods) that values and prioritizes community-led initiatives and Indigenous self-determination.

To achieve this vision, we propose the following:

- Support for made-in-the-North solutions (policies, programs) attuned to cultural, geographic, environmental and political context.

- Respect and support for Indigenous self-determination and self-governance, including control over resources necessary to determine the future of their food systems.

- Increased capacity for the harvesting, gathering, and hunting of traditional wild foods.

- Increased local agricultural production where viable, with Northern agriculture distinct scale and sectors.

- Greater capacity for processing/value-added products and increased regional trade to support the consumption of locally-harvested, produced and processed food.

- Integrated local and imported supply chains including market-based and subsistence food provisioning utilizing the social economy and sharing networks.

- Cohesion and coherence within food policies and programs across departments and jurisdictions.

- Long-term support for community-level climate change adaptation and mitigation.

- Increased community-led research and data collection, with communities retaining control of data collected.

- Links to broader economic and social development needs: infrastructure (electricity, internet), transportation networks, poverty and income levels, training and skills development.
For far too long, northerners have been calling for recognition and support for local, community-based solutions to address food security and food sovereignty needs and challenges. Over and over they say “we know what is best for us; we know what we need”. It is time that we listen and find ways to support and work together on sustainable, northern-based solutions that are relevant and effective. It is also essential that the unique local contexts across the North are recognized and there is acknowledgement that a “one size fits all” approach will not work. Support for northern and Indigenous food systems is an opportunity to increase Indigenous self-determination and to continue on a path of reconciliation.

The findings and recommendations presented in this report echo the voices of those living and working in the North. To address northern food insecurity and work towards food sovereignty, a multi-pronged approach that supports diversified food systems including market foods, local food production, and harvesting of traditional foods is required. This must be rooted in northern values, with priority to community-led initiatives and Indigenous peoples’ self-determination and self-governance.

These elements are essential to ensuring and maintaining the availability of and access to building northern food systems that are capable of providing affordable, healthy and culturally appropriate food for northern communities. Ultimately, whatever policies and programs are deployed, they must empower communities to implement changes they identify as important rather than only respond to top-down directives; they must be flexible and support Indigenous peoples’ leadership in generating solutions to the barriers experienced by communities, and the scaling-up of community innovation; and they must come with Indigenous jurisdiction over resources needed to sustain locally-driven changes over the long-term, rather than within a single political cycle.
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