FOOD INNOVATION IN CANADA'S NORTH:

THE CASE FOR A SOCIAL ENTERPRISE CLUSTER

ACTION CANADA 2018/2019 TASK FORCE REPORT

ACTION CANADA
BUILDING LEADERSHIP FOR CANADA'S FUTURE

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EXECUTIVE SUMMARY

CHALLENGE

Canada's northern communities have some of the country's most severe rates of food insecurity. With rates in Nunavut (18.5 percent), the Northwest Territories (4.4 percent) and Yukon (3.7 percent) far exceeding the national average (2.6 percent)[1], the Council of Canadian Academies has classified the state of our northern food insecurity as a crisis.[2]

Considering that Canada's North exports nearly $800 million in fish and other marine products annually to international markets[3], there are considerable opportunities to boost domestic commercial food production and innovation to meet local food needs as a means of tackling food insecurity. However, the northern foods value chain faces a host of social, economic, logistical and political obstacles fueled by fragmented industries with little to no co-ordination or communication.

In recognition of this, the Arctic Council's Sustainable Development Working Group (SDWG) is considering establishing an Arctic Food Innovation Cluster (AFIC) with the goal of boosting the North's competitiveness in food industries and, in doing so, improving its food security rates by connecting northern entrepreneurs, southern-based investors/businesses and relevant actors (e.g., northern Indigenous communities, governments, research centres) with knowledge and interest in northern food industries.

In support of this initiative, our Task Force conducted a preliminary study of the feasibility of an AFIC in Canada. The intent of such a cluster is to advance increased access to affordable, culturally informed, healthy food across northern regions. The cluster's secondary objective is to foster further innovations within the North's commercial food production industry via new food production methods (e.g., full utilization of harvested fish), value chains, and/or governance models. This would, in turn, boost local economic development opportunities within these northern communities.

ASSUMPTIONS

This study does not claim to be exhaustive and is intended to be a preliminary analysis of the feasibility of the cluster concept within Canada's North. Our report's assumptions were primarily:

1. ***That there was sufficient interest from the federal government, including potential interest in providing some degree of funding to such an initiative.***

2. ***That a cluster model would potentially help alleviate food insecurity and boost regional economic development.***

1 Public Policy Forum. November 2015. Dollars in CAD.
2 Council of Canadian Academies. 2014.
3 Natcher, D. 2018.

ANALYSIS

After conducting interviews with 30 key informants, the Task Force found that the main obstacles facing Canada's northern food chain were:

MONEY

E.g., the accessibility of public and availability of private financing;

PEOPLE

E.g., limited labour pools, a lack of communication and strong relationships between stakeholders throughout the food value chain; and

PLACE

E.g., insufficient transportation, infrastructure and distribution, regulatory barriers.

However, a number of strengths were also highlighted:

- the North's strong community and social capital;
- specialized local knowledge;
- some communities' experience in selling unique northern food products; and
- the particularity of the northern brand.

PATH FORWARD

After extensive reading and consultation with food value chain stakeholders, the project team arrived at the following recommendations as a blueprint for an AFIC in Canada:

1. Consider establishing a cluster that is not exclusively composed of food chain stakeholders but rather incorporates other community entities also impacted by the same challenges, such as transportation. This would allow the cluster to propose solutions that offer re-investment in community and broad social benefits.

2. Consider "social enterprise" as a core theme for Canada's northern cluster. This would mean designing a cluster where personnel and participants are selected for their familiarity with and commitment to social enterprise models that have proven to be well adapted to the constraints of the North. This could also mean that social enterprise solutions such as public/private infrastructure ownership or micro-financing might be used as tools for cluster solutions.

3. Continue work on and research into the feasibility and implementation of an AFIC. While a traditional cluster, based strictly on market factors, is unlikely to work in the North, a modified cluster model leveraging social catalysts could be beneficial by providing a funding mechanism that addresses some of the financing issues raised by our respondents.

4. Designate an interim cluster CEO or lead researcher to continue research and stakeholder outreach full time. The designated individual will need knowledge of Canada's northern and remote communities, the Indigenous context and cluster design, as well as ideally having experience working in contexts that are not strictly profit motivated.

5. Identify local community partners outside the food value chain who might benefit from this cluster and engage with them.

6. Formalize and action a plan for engaging Indigenous and local communities.

7. Formalize a plan for addressing each of the seven key questions suggested by our research (see page 28 for full list of questions).

INTRODUCTION

Canada's northern communities have some of the country's most severe rates of food insecurity. Paradoxically, the North exports nearly $800 million in fish and other marine products annually to international markets.[4] Exported food is usually healthy, culturally compatible food valued by local communities, while imported food often lacks freshness and nutritional value.[5]

Within Canada's North there are considerable opportunities to boost domestic commercial food production to meet local food needs. This has the potential to help address food insecurity and, secondarily, boost local economic development. However, the northern food value chain faces a host of social, economic, logistical, and political obstacles reinforced by fragmented industries with little to no co-ordination or communication.

In recognition of this, the SDWG is considering the establishment of an Arctic Food Innovation Cluster. An AFIC would aim to boost northern competitiveness in food industries and, in doing so, improve food security rates by connecting northern entrepreneurs, southern-based investors/businesses and relevant actors (e.g., Indigenous communities, governments, research centres) with knowledge and interest in the Arctic food industries.

Federal government stakeholders have expressed interest in the AFIC initiative and have contributed funds to explore this. Prof. David Natcher (University of Saskatchewan) has been tasked by the government with championing the exploration and development of the AFIC project. It is envisioned that the blueprint will be co-sponsored by the Arctic Council Sustainable Development Working Group's incoming chair in the spring of 2019.

In support of this initiative, our project team explored an AFIC's feasibility to help define a blueprint.

4 Natcher, D. 2018. Dollars in CAD.
5 Natcher, D. 2018.

OBJECTIVE AND RESEARCH QUESTIONS

The principal objective of this project is to conduct a preliminary study of the feasibility of an AFIC in Canada. Such a cluster would have the intent of advancing increased access to affordable, culturally informed, healthy food across all Arctic regions. The cluster's secondary objective is to foster further innovations within the Arctic's commercial food production industry via new food production methods (e.g., full utilization of harvested fish), value chains and/or governance models; in turn, boosting local economic development opportunities within these northern communities.

In particular, this project aimed to answer the following questions:

1. What are the challenges facing the food chain in Canada's North and what underlying factors contribute to these challenges?
2. Can a cluster model assist in resolving all or part of these challenges? If so, what should be the central focus of such a cluster initiative?
3. What kind of cluster theme and/or model would work best within the context of Canada's North?
4. Who are the key stakeholders who should be engaged within this structure?
5. What are potential next steps for the establishment of this cluster?
6. What key questions should the cluster participants address first?

ASSUMPTIONS AND LIMITATIONS

This study does not claim to be exhaustive and is intended to be a preliminary analysis of the feasibility of the cluster concept within Canada's North. Before this project began there were two assumptions identified:

1. that there was sufficient interest from the federal government, including potential interest in providing some degree of funding to such an initiative.
2. that a cluster model would potentially help alleviate food insecurity and boost regional economic development

Validating these assumptions was considered out of the scope for this report, effectively becoming a delimitation.

The project team also established additional delimitations at the outset:

1. The geographic scope of the project uses a broad definition of the Canadian North that encompasses the Yukon, Northwest Territories, Nunavut, Nunavik and Labrador. Interviewees included those within this geographic area, as well as those outside the area who are integral to the food supply chain within it.
2. The project does not confront challenges relevant to northern food security or northern economic development beyond assessing the feasibility of an AFIC and producing associated recommendations.
3. The project team refrained from conducting deep, prolonged or representative consultations at the community level due to time and resource constraints and recognizing the long-term nature of these relationships. The team did ensure that Canada's three Indigenous Permanent Participants to the Arctic Council were briefed by Prof. Natcher and were supportive of the project, and that their perspectives were incorporated into the project findings wherever possible, noting that only one Inuit Circumpolar Council representative responded to the interview request.[6] Deeper consultations with Canada's northern communities and Indigenous communities in particular are essential components of future work and are fundamental to the legitimacy of any northern Canadian cluster.
4. Beyond the delimitations identified above, only one additional limitation arose during the project work. While every effort was made to conduct interviews with a range of northern food chain stakeholders, time constraints and the responsiveness of some stakeholders to the project team's interview requests limited the degree to which this was possible. Despite this, we are confident we have obtained a sufficient sample of perspectives to inform the findings and recommendations in this report.

6 Canada's three Indigenous Permanent Participants to the Arctic Council are the Arctic Athabaskan Council, the Inuit Circumpolar Council (ICC) and Gwich'in Council International. The group interviewed Selma Ford, the Health Coordinator of the ICC.

ENVIRONMENTAL SCAN

FOOD SECURITY IN CANADA'S NORTH

During his 2012 tour of Canada's low-income urban centres and isolated northern communities, the United Nations Special Rapporteur on the Right to Food, Olivier De Schutter, found that the country's food insecurity rates were concerning;[7] so much so that he suggested Canada drop its "self-righteous" attitude in order to tackle the widespread problem of food insecurity at hand.[8]

DEFINING FOOD SECURITY

FIGURE 1: FOOD SECURITY'S THREE DIMENSIONS

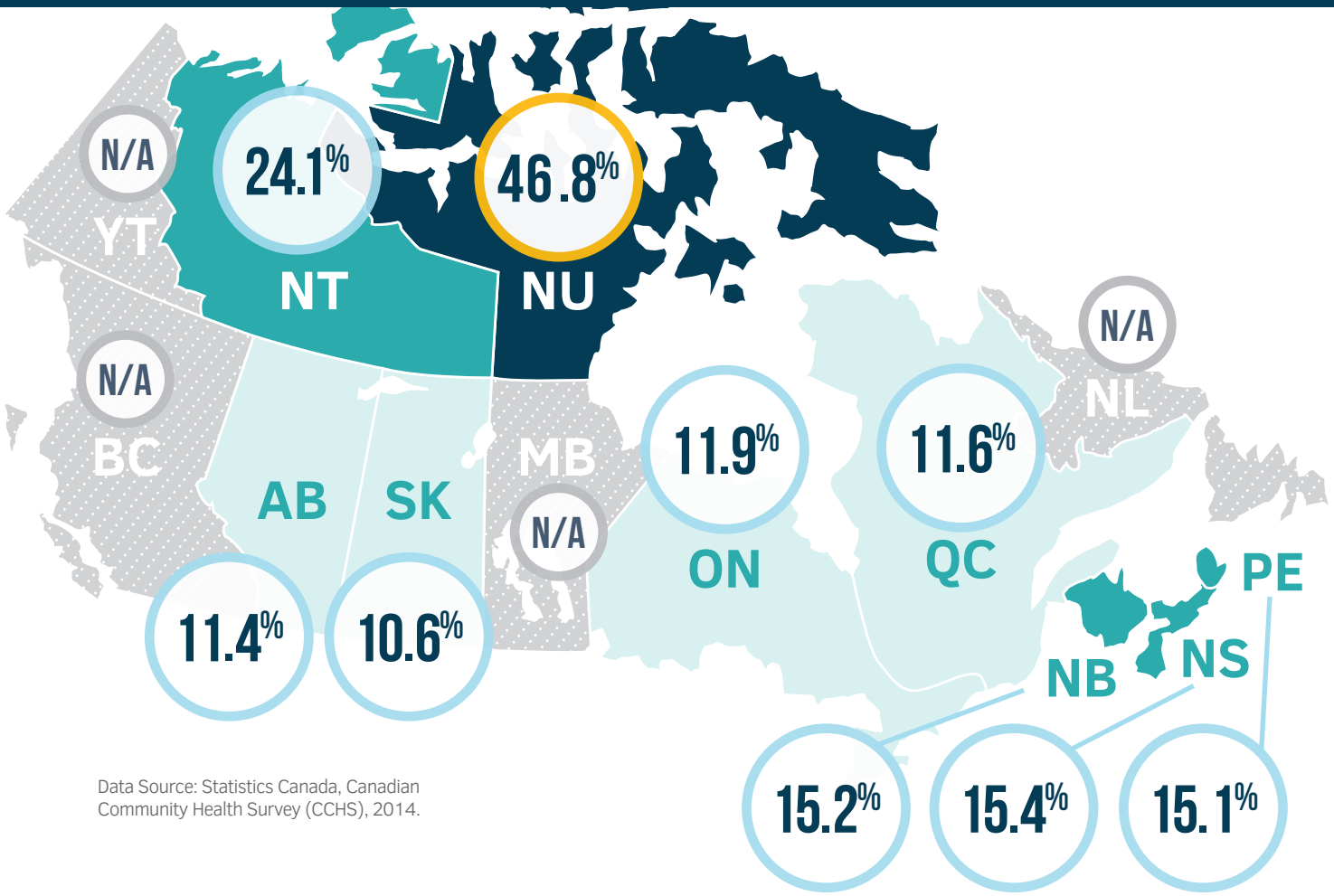
Most definitions of food security revolve around three components:

1. **Availability**: The supply of food produced, distributed, and exchanged.
1. **Accessibility**: The ability of individuals and households to purchase food.
1. **Utilization**: The nutritional value and quality (e.g., cultural appropriateness/relevance) of foods available and accessible to individuals and households.

7 Office of the United Nations High Commissioner for Human Rights, United Nations. 2012.
8 National Post. May 15, 2012. UN envoy blasts Canada for 'self-righteous' attitude over hunger, poverty

HOUSEHOLD FOOD INSECURITY

FIGURE 2: HOUSEHOLD FOOD INSECURITY BY PROVINCE AND TERRITORY (2014)



Data Source: Statistics Canada, Canadian Community Health Survey (CCHS), 2014.

Food insecurity in Canada is an issue not felt equally across the country. It is most acutely felt within Indigenous and northern households. Low-income and Indigenous households have reported a lot of food insecurity — 33 and 27 percent, respectively — while the national average is 12.4 percent.[9] Compared to a 13 percent poverty rate for non-Indigenous, non-racialized, and non-immigrant children, off- and on-reserve First Nations children experience poverty rates of 51 and 60 percent, respectively.[10] Furthermore, the national rate of severe food insecurity is 2.6 percent while Nunavut, the Northwest Territories, and Yukon experience rates of 18.5, 4.4 and 3.7 percent, respectively.[11] To further illustrate the point, the crisis is so severe in Nunavut that it has the highest rate of food insecurity for an Indigenous population in a developed country in the world.[12] All in all, the Council of Canadian Academies has classified northern food insecurity as a crisis.[13] [14]

9 Public Policy Forum. November 2015.
10 Macdonald, D. & Wilson, D. May 2016.
11 Public Policy Forum. November 2015.
12 Egeland, G. 2011.
13 Council of Canadian Academies. 2014.
14 Statistics Canada. 2014.

A confluence of factors has led to northern Canada's current food insecurity crisis. From a demand-side perspective, increased reliance on market foods in lieu of traditional foods has rendered northern communities vulnerable to high-cost retail goods. The causes of this shift vary and include, but are not limited to:

- the prevalence of wage employment lifestyles making it difficult to hunt and gather traditionally harvested foods, referred to as country foods;[15]
- negative changes in the availability and behaviours of animals and harvests due to climate change;[16]
- a loss of community knowledge of traditional hunting and gathering practices due to the legacy of residential schools;[17] and
- reduced demand for traditional diets among a quickly growing youth population.[18]

From a supply-side perspective, high costs, limited availability and poor-quality foods make food security a challenge for northern communities. The cost of feeding a family in Southern Canada, in Toronto for example ($847/month in 2015),[19] is less than half that of feeding a family in a northern community such as Norman Wells ($1,956/month in 2015).[20] The limited marketplace competitiveness of retailers and small populations of northern communities leave households with low bargaining/purchasing power, putting them at the mercy of higher food costs.[21] Additionally, these high prices can be partially attributed to increased costs in transportation, labour and energy[22] associated with shipping food to and producing food in isolated northern communities. Limited and poor infrastructure networks constrict food imports in northern communities[23] and make it challenging to import fresh and nutritious foods. Paradoxically, Canada's North produces a substantial amount of food products, mostly fish and other aquatic products, exporting nearly $800 million worth internationally each year.[24]

In addition to social support programs that grant benefits to those with few means in Canada's North, the federal government's most notable strategy for tackling northern food insecurity is subsidizing food costs. This approach has existed since the 1960s, evolving from the Food Mail Program to what is now known as Nutrition North Canada (NNC). The logic behind this market-based model is that direct subsidies to northern retailers, southern suppliers, and country food processors and distributors operating in the North will be passed on as savings to consumers. The more perishable and high-nutrition the food is, the higher the subsidy. The NNC's annual $68.5-million cost[25] has been found to partially succeed in reducing prices for in-scope food, with the food basket of a family of four dropping five percent ($94/month) between 2011 and 2015.[26]

15 Chan, H. M., Fediuk, K., Hamilton, S., Rostas, L., Caughey, A., Kuhnlein, H., & Loring, E. 2006.
16 Ford, J. D. 2009.
17 Paxton-Dunn, T. 2016.
18 Council of Canadian Academies. 2014.
19 Veeraraghavan, G., Martin, D., Burnett, K., Jamal, A., Skinner, K., Ramsay, M., Williams, P., & Stothart, C. September 2016.
20 Nutrition North Canada, Government of Canada. January 2018.
21 Veeraraghavan, G., Martin, D., Burnett, K., Jamal, A., Skinner, K., Ramsay, M., Williams, P., & Stothart, C. September 2016.
22 Garfield, L. September 2017.
23 Bristow, M. and Gill, V. December 2011.
24 Natcher, D. 2018. Dollars in CAD.
25 Nutrition North Canada, Government of Canada. 2016.
26 Nutrition North Canada, Government of Canada. 2018.

Critics question whether the NNC has been able to achieve its intended goal of improving the access northerners in isolated communities have to nutritious, perishable food. News and social media posts by consumers still paint a picture of high-cost food in northern stores. The NNC is often criticized for a failure to pass subsidies on to consumers. Indeed, research shows the federal government is unable to verify whether retailers pass the full subsidy on to consumers.[27] Furthermore, some argue the NNC's market-driven model operates on a false premise that retail markets in the North are competitive, ultimately resulting in retailers facing little pressure to offer lower input costs and prices.[28]

Concerns about the NNC's approach persist despite reforms made to the program in December 2018 that include: an expansion of subsidized items; an increase in subsidies for core staples; the establishment of a new harvester support program; and revamped reporting requirements by retailers benefiting from the subsidy.[29] Some Inuit groups, such as the Nunatsiavut government,[30] welcome the changes, but some feel the program still lacks transparency in assessing whether subsidies are benefitting hard-hit, northern consumers — a captive and vulnerable market.[31]

As leaders, public policy practitioners, researchers and advocates seek alternative ways to tackle northern food insecurity, there is growing interest in further developing existing food production opportunities.[32] The hope is that by increasing sustainable commercial production of culturally appropriate, northern-sourced foods, food would be more affordable and abundant in the North,[33] meaningfully tackling food insecurity. Preliminary research supports this hypothesis. Some work demonstrates that the sale of locally sourced Inuit foods in Nunavut — in this case, online sales of country food — offers prices notably cheaper than non-traditional, non-northern food products found in retail stores.[34]

DEFINING SOCIAL ENTERPRISES

The definition of social enterprises varies by schools of thought and jurisdictions.[35] Our paper adopts the Social Enterprise Council of Canada's definition that social enterprises are community-based businesses that work to achieve a specific social, cultural and/or environmental purpose by selling goods and/or services, with profits being reinvested to maximize their social mission.[36]

27 Galloway, T. 2017.
28 Ibid.
29 Government of Canada. December 2018.
30 CBC. Dec. 13, 2018.
31 Galloway, T. Dec. 12, 2018.
32 Gillies, E. 2016.
33 Natcher, D. 2018.
34 Gillies, E. 2016.
35 Young, D. & Lecy, J. October 2013.
36 Social Enterprise Council of Canada.

Coupled with this interest in further commercializing northern-sourced foods is the use of social enterprises to combat food insecurity. Food-focused social enterprises may be better suited to tackle food insecurity due to their emphasis on balancing the competing interests of consumers (who want more affordable food prices) and producers (who want sustainable profits/revenues) while also fostering greater local economic development. Furthermore, researchers have found that, on average, social enterprises disproportionately serve Indigenous communities throughout Canada.[37] It is theorized that what makes these enterprises successful within these communities is their adaptability to a quadruple bottom line. This means that in addition to the standard pillars of a social enterprise — economic, social and environmental — culture can be an added component to the mission of these enterprises.[38] Considering that over half of Canada's northern residents are Indigenous (First Nations, Métis and Inuit) or belong to a distinct cultural group, the potential for social enterprise is significant.[39]

An example of social enterprises successfully challenging northern food insecurity exists within Manitoba's northern Indigenous communities. In a 2017 study of food insecurity in the Garden Hill First Nation (GHFN), a remote community 610 kilometres northeast of Winnipeg, researchers found that social enterprises are improving food security.[40] For instance, a GHFN-based social enterprise called Meechim Inc. is producing and selling healthy, on-reserve food at prices lower than the nearest Northern Store retailer. Its aim is not only to increase healthy food consumption in the community, but also to introduce, promote and strengthen economic development.[41] And a 2012 study of social enterprises in Manitoba concluded they are a "financially feasible [way] to operate a business while providing valuable employment or training opportunities and addressing complex issues like poverty and environmental sustainability" — affirming the potential of such initiatives to improve food security in northern communities.[42]

> ***"Creating a mechanism to support the development of enterprises, particularly social ones, to increase the local production and consumption of Canadian Arctic foods could substantially impact northern food insecurity."***

Creating a mechanism to support the development of enterprises, particularly social ones, to increase the local production and consumption of Canadian Arctic foods could substantially impact northern food insecurity. It is in following the logic that better commercializing northern food could have spinoff community benefits that the SDWG first decided to investigate an AFIC. The hope is that such a cluster could connect various stakeholders with a shared interest in Arctic food industries to boost the competitiveness of Canada's northern food industries and improve lives of northern community members.[43]

37 Sengupta, U., Vieta, M., & McMurtry, J.J. 2015.
38 Ibid.
39 Natcher, D. 2018.
40 Puzyreva, M. June 2018.
41 Ibid.
42 O'Connor, R., Elson, P., Hall, P., & Reimer, B. 2012.
43 University of the Arctic. June 2018.

CLUSTER THEORY

The idea of creating networks of stakeholders sharing common interests and goals is not new. These networks, commonly referred to as clusters, are found in various locations and sectors of activity across Canada and the world and present some common features.

The concept of "cluster" has evolved over time. While there exists almost as many definitions of clusters as there are authors or publications,[44] most use cluster expert Michael Porter's definition as a starting point. Porter defines clusters as "geographic concentrations of interconnected companies and institutions in a particular field, linked by commonalities and complementarities".[45] As noted by Prof. Abdelillah Hamdouch, Porter's approach emphasizes the spatial organization of clusters based on two main dimensions: (1) the links between actors in terms of geographical proximity, complementarities, and trustworthy relationships building; and (2) the existence of competitive and co-operative interactions amongst co-localized firms.[46]

Porter's emphasis on the spatial aspect of clusters is contrasted with another approach, developed notably by the Organisation for Economic Co-operation and Development and dubbed the reticular conception of clusters, which focuses on the institutional and inter-organizational links between interdependent actors as the defining feature of networks within a value chain.[47] Under this approach, clusters are defined as "networks of production of strongly interdependent firms (including specialized suppliers), knowledge producing agents (universities, research institutes, engineering companies), bridging institutions (brokers, consultants) and customers, linked to each other in a value-adding production chain."[48]

Although they focus on different features, both approaches have in common an emphasis on the relationships between participants as the conductor for the formation and viability of clusters. While geographical proximity increases the likelihood and ability of participants to develop those crucial relationships, other factors contribute to the emergence of clusters.

44 Hamdouch, A. 2007. p. 3.
45 Porter, M. 1998. p. 77-90.
46 Hamdouch, A. 2007. p 5-6.
47 Hamdouch, A. 2007. p 7-8.
48 Organisation for Economic Co-operation and Development. 1999.

Clusters typically emerge organically; a review of the literature suggests "clusters develop naturally through market processes and individual actions of firms, workers, and residents (consumers)."[49] According to Prof. Harold Wolman and researcher Diana Hincapie, the main processes and actions through which the benefits associated with clustering occur include:

PRODUCTION PROCESS:

Activities for which a geographical area has a competitive advantage lead to the emergence of clusters, which promote scale economies that result in better input/output ratio for participants.

LABOUR MARKET:

Clusters tend to form where there is a pool of skilled workers. This, in turn, interacts with production processes as firms requiring certain types of specialized skills, and workers possessing those specialized skills, are attracted to areas where those skills are pooled.

MARKET:

Consumer demand results in a large market for certain types of products, which can lead to the emergence of clusters.

SOCIAL/INSTITUTIONAL/CULTURAL:

Clusters may form through historical accidents, spinoffs from existing clusters, or individual entrepreneurs, for example, and expand as a result of the development of shared trust through social interactions, face-to-face communications, social networks, etc.[50]

While clusters tend to emerge organically, policies can be implemented to facilitate their creation and support their growth and long-term success. For instance, in 2017 the federal government announced its investment of up to $950 million — an amount expected to be matched dollar for dollar by the private sector — for the creation of five new innovation "superclusters" across the country. The purpose of this program is to accelerate innovation through superclusters, with a view to positioning Canada as a global leader in innovation. The five selected superclusters[51] were announced in early 2018, and work is underway to get them up and running.

Effective policy intervention depends on the type of cluster being supported. Based on their literature review, Wolman & Hincapie recommend that policies capitalize on the following cluster strengths and defining features:

1. Focus on clusters for which the region has existing assets, as evidenced by some existing concentration.
2. Focus on clusters for which the region has a competitive advantage relative to other regions. Focus on clusters that are growing nationally.
3. Focus on clusters for which an intervention strategy is possible and where it will make a difference in terms of affecting economic development objectives.
4. Focus on clusters whose impacts or externalities particularly serve public purposes (e.g. employ more entry-level labour or promote energy efficiency).[52]

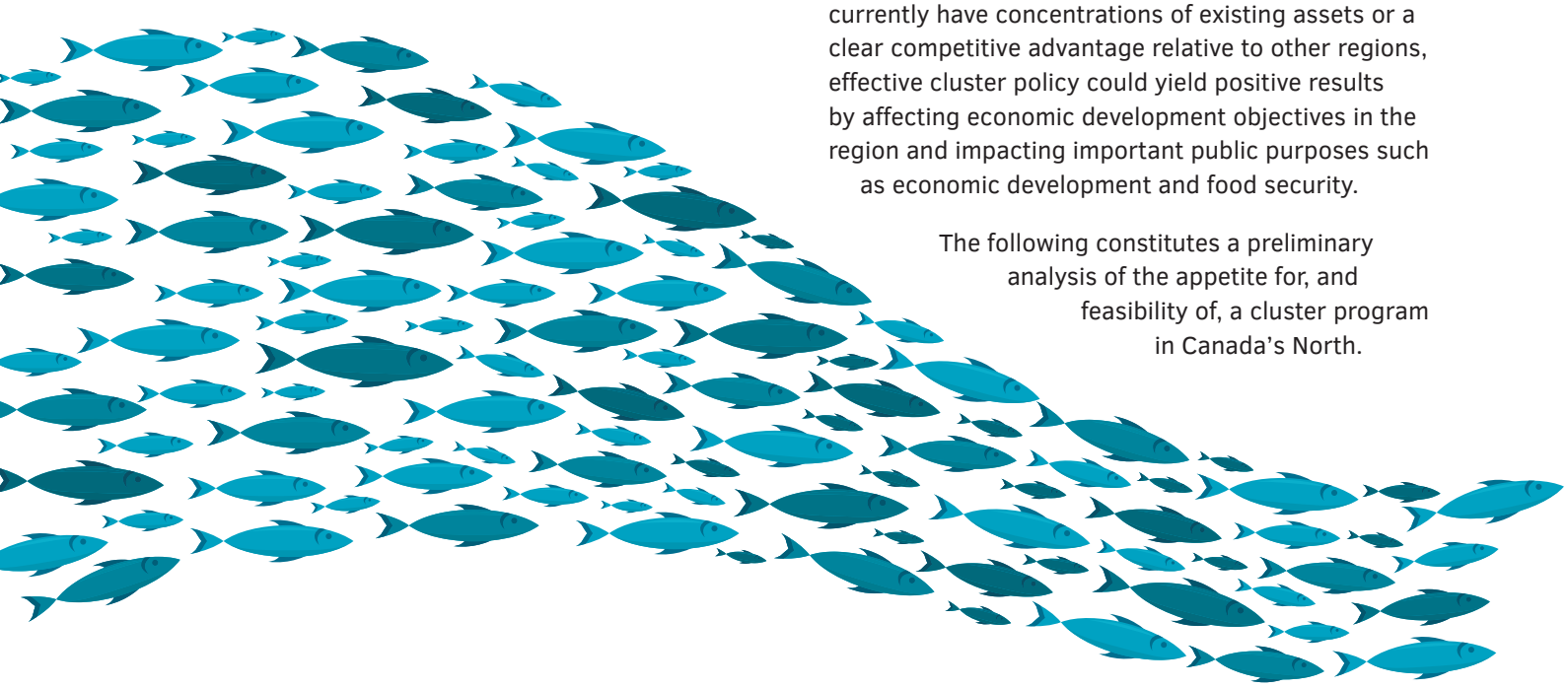
49 Wolman, H. & Hincapie, D. 2010. p. 33.
50 Wolman, H. & Hincapie, D. 2010. p 25.
51 The five new superclusters are: the Digital Technology Supercluster; the Protein Industries Supercluster; the Advanced Manufacturing Supercluster; the SCALE.AI Supercluster; and the Ocean Supercluster. For additional information, see Innovation, Science and Economic Development Canada, Government of Canada. Feb. 14, 2018. Canada's new superclusters.
52 Wolman, H. & Hincapie, D. 2010. p. 33.

> *Canada's brand on food is safe, reliable, high quality. The North brings a 'superbrand'; it's unique food, sustainable, clean and safe. This is important because clusters need strong and recognizable brands that attract investments, customers and partners."*
>
> Jennifer Miller, Director General of the Innovation Superclusters Initiative

Based on the unique context of Canada's North described above, it is apparent that the factor most likely to lead to the emergence and growth of a cluster in the North is the creation of relationships between potential participants, based on the particular social/institutional/cultural context of the region. Through their shared experience living and working in remote communities located in a generally harsh climate, where economic opportunities are few, cost of living is high, and food insecurity is prevalent, potential cluster participants are likely to develop shared trust through interactions resulting from their common need to engage in knowledge and resource sharing. While the geographical scope of the area covered by our definition of the Canadian North often constitutes an obstacle to the natural occurrence of those interactions, our view is that cluster participants do create those relationships out of necessity.

Policies could be envisioned by governments to support the emergence and growth of those naturally occurring networks. While the North does not currently have concentrations of existing assets or a clear competitive advantage relative to other regions, effective cluster policy could yield positive results by affecting economic development objectives in the region and impacting important public purposes such as economic development and food security.

The following constitutes a preliminary analysis of the appetite for, and feasibility of, a cluster program in Canada's North.



METHODOLOGY

As mentioned, this report is a preliminary look into the feasibility of a food innovation cluster, or similar enterprise, in Canada's North. It is not an exhaustive review and has not attempted to reach out to all northern Canadian food stakeholders. The methodology for this project has consisted of the following:

1. Development of the Terms of Reference, conceptual framework and Memorandum of Understanding (August to November 2018): These were developed in co-operation with Prof. David Natcher, Director, Indigenous Land Management Institute, Agricultural and Resource Economics, College of Agriculture and Bioresources at University of Saskatchewan.

2. Literature review (September to November 2018): A literature review was conducted to provide the project team with a robust understanding of existing work in this area and to identify stakeholders, best practices, known gaps and challenges, and potential case studies. This included the following types of secondary sources, mostly focused on northern food analysis, Indigenous communities and cluster design: reports, documentation, policy papers, Internet searches.

3. Key informant interviews (October to December 2018): Interviews were held with various key stakeholders. Targeted structured interviews were held in person with stakeholders attending Resetting the Table: Food Secure Canada's 10th Assembly, held in Montreal from Nov. 1-4, 2018. Participants were identified beforehand in collaboration with the Food Secure Canada executive team and sent invitations to participate. Additional targeted structured interviews were held by phone and teleconference with various key stakeholders between Oct. 29, 2018, and Jan. 14, 2019. A map was developed to identify key stakeholders within northern Canada (northern food producers, government and Indigenous representatives, transporters, shippers, vendors, distributors, community organizations, and NGOs). Interviews were structured through the use of a question guide to ensure consistency and facilitate qualitative data analysis. A total of 27 interviews were conducted with 30 individuals.

4. Data analysis of interviews (November to December 2018): All qualitative and quantitative interview data was consolidated into a single spreadsheet and analyzed question by question to detect common themes and trends across respondents. Quantitative data was averaged by question and results were ranked. All qualitative and quantitative data results informed the findings presented in this report.

DISCUSSION

OBSTACLES IDENTIFIED

After listening to respondents and reviewing their commentary, a few key challenges were put into sharp relief. These obstacles largely sift into three categories: Money, People and Place. Money relates to public and private financing and describes respondents' frustrations with and difficulties in securing adequate, sustainable and timely funding. People connects all issues related to human capacity and attitudes that impact the cluster's likelihood of success. And Place describes in detail the particular challenges faced in Canada's North, relating to everything from infrastructure to technology, regulation and standards.

CHALLENGE #1: MONEY

Public Financing

Public financing is largely available and considered broadly to be sufficient, with interviewees particularly citing the Canadian Agricultural Partnership (formerly known as the Growing Forward program) as being a good source of funding.[53]

Several issues were identified with respect to public funding, including federal grant programs for food producers such as the programs identified above. Firstly, there is the issue of timing: government funding was criticized for taking a long time to process, often being restricted to short-term funding windows[54] and being associated with reporting timelines that coincide with traditional harvesting seasons.[55] Secondly, the administrative burden of applying for funding, administering it (project coding, audits), and reporting back on its use is felt even more greatly in Canada's North, where human capacity and resources are more limited than in the south. As one respondent stated: "There is money available, but the paperwork, authorities, governance, and boards make it challenging to access; the red tape is a challenge."[56] One interviewee suggested government funding could be more easily received in the form of subsidized agricultural rates for fuel and insurance at the territorial level, rather than the relatively intensive federal granting processes. Lastly, we heard that community capacity to effectively absorb funding and strategically apply it to a sustainable growth model is often lacking. As Nathan Cohen-Fournier, a Socio-Economic Development Officer with Makivik Corporation, told us: "In Nunavik, a lot of people want projects around Arctic food, but how do they find a local champion to carry them forward in a way that is locally appropriate and effective?"

53 For additional information about these programs, see: Agriculture and Agri-Food Canada, Government of Canada. 2018. Growing Forward 2.
54 Marc-Antoine Fortin, Agent de développement des infrastructures, Société du Plan Nord.
55 Sheldon Nimchuk, Director Project Development and Partnerships, Qikiqtaaluk Business Development Corporation.
56 Todd Johnson, General Manager, Pangnirtung Fisheries.

Private Financing

In contrast to public funding, private financing is generally difficult for food-related businesses to secure in the North, although it is easier to access in more established food-producing regions such as parts of the Yukon. Respondents noted that this is evolving and they are working with Farm Credit Canada and others to facilitate access to private financing.

"If we're talking about traditional financing from banking institutions, [it's extremely hard] because the North isn't seen as a traditional agriculture area. It's difficult to work with someone like Farm Credit Canada — although they're working on changing that so the number will shift — [but] as it stands now you have to work hard if you want to get traditional financing."[57]

The limited availability of private financing can be ascribed to entrenched systemic barriers routinely identified in the North, including lack of infrastructure, lack of human capacity, a weak distribution network, little value-add processing, and a lack of scalability due to limited market sizes. These barriers, combined with remote location and climate challenges, result in an environment of high-risk, low-yield investment offerings that are unappealing to traditional lending bodies. These fundamental barriers faced in the North are of particular significance to cluster design because traditional cluster models rely heavily on private financing. In affirming this challenge in the North, it is apparent that whatever cluster model is implemented to help address food insecurity needs to take into consideration these challenges and may have to diverge from traditional capitalist funding structures.

CHALLENGE #2: PEOPLE

Labour Pool Limitations

Throughout the Arctic, especially in Nunavut, there is a small population spread across a vast geographic area.[58] Educational post-secondary opportunities are limited: A few colleges offer some professional and technical degrees, but not many relate to food. Most individuals who wish to pursue formal education must go south, and many do not return. Furthermore, the migration of local labour to urban centres, particularly in the south, for higher paying and more stable jobs results in manpower shortages to run businesses and adds a salary premium to skilled workers. The small labour pool available in Canada's North, in turn, disincentivizes entrepreneurs from establishing businesses there, further limiting work opportunities for the local population.

That said, some respondents noted that initiatives employing locals and providing on-the-job training and flexible working arrangements (including allowing employees time off to participate in cultural activities) have the potential to see ripple effects not only on these individuals' stature within the community, but also their personal economic position and food security. For example, one respondent explained that "because [local community members] are being hired to work in the greenhouses, they're becoming experts in food production and are getting respect by producing high-quality, nutritious food to sell, which helps to build their community food security and their own economic security, which in turn helps their own personal food security."[59] This kind of model, common in social enterprises, is promising given the constraints identified above.

57 Kevin Wallington, Director of Marketing and Sales, Polar Egg, Hay River, Northwest Territories
58 For additional information about the population per square kilometre in various regions of Canada, see: Statistics Canada. 2018. Population and Dwelling Count Highlight Tables, 2016 Census.
59 Raygan Solotki, Executive Director, Inuvik Community Greenhouse

Cynicism Optimism Paradox

Generally, respondents were in favour of co-operation with other food chain stakeholders and supported the notion of co-ordinated collaboration and communication. In particular, they noted that relevant stakeholders are dispersed across a huge geography, limiting opportunities for informal meet-ups. The majority of respondents were already aware of, or were members of, collaboration-focused groups (which were particularly prevalent in the Yukon),[60] and urged the project team to "not replicate what is already being done [and] not add to the burden of people that are already stretched thin."[61] Interestingly, it was flagged that both the federal government and industry are not adequately represented in many of the existing working groups, and that this participation would be of value.

Despite this reported engagement, many respondents were skeptical of the efficacy of such groups and cited few substantive examples where they enacted change. This coloured their enthusiasm or reaction to the question of whether a food innovation cluster would be of value, particularly as there was uncertainty about the difference between a working group and a cluster. For example, one respondent noted: "I've participated in some of this kind of discussion…[but] a lot of people feel as though the effort that they're putting forward is getting them nowhere. The cluster idea is great, it's lofty, it's a terrific idea, but it could just be a lot of talking, which I've seen a lot of."[62]

Ownership Paradox

One of the tensions identified by respondents was the need for new initiatives to be locally owned and community-led, particularly where Indigenous populations were concerned. Yet simultaneously many of the same respondents expressed concern about the limited capacity and resources available in these communities to support any kind of new, locally owned initiative. The tension between the need to engage the perspectives of those most affected, and the time and capacity constraints of those individuals was crystallized by Duane Wilson, Vice-President of Stakeholder Relations with Arctic Co-operatives Limited, who noted that "the most marginalized in these environments are the ones least able to do something about it because they're living day to day."[63] Another interviewee from the community-based research and non-profit sector similarly noted that "the challenge is not apathy, but a lack of opportunity and capacity."[64]

Added to this dynamic was a prevalent distrust of southern-based institutions, which were frequently considered to not hold the necessary understanding of Canadian Arctic contexts required to provide meaningful and relevant solutions. Lastly, it was noted that even where these challenges could be overcome through the injection of capacity at the community level, much of this capacity was made available only for a pilot phase and was not extended beyond.[65]

Participants Disconnect

A number of respondents cited a lack of communication between potential stakeholders. This was attributed to various reasons, including geographic distance, trust and familiarity with the full network of stakeholders, including their role, responsibilities and focal points. Given this context, a cluster may provide value by bringing together a range of stakeholders who would otherwise not naturally connect.

60 Existing groups identified included the Yukon Agricultural Association, the NWT Food Network and the Arctic Institute of Community Based Research Northern Food Network.
61 Selma Ford, Health Coordinator, Inuit Circumpolar Council.
62 Todd Johnson, General Manager, Pangnirtung Fisheries.
63 Duane Wilson, Vice-President, Stakeholder Relations, Arctic Co-operatives Limited.
64 Interviewee asked to remain anonymous.
65 Marie-Ève Barbeau, Conseillère aux affaires autochtones, Directrice régionale du Nord-du-Québec.

CHALLENGE #3: PLACE

Transportation, Infrastructure and Distribution

Overwhelmingly, the availability of both transportation and value-added food processing infrastructure was cited as a major obstacle by respondents. Indeed, respondents cited infrastructure as their area of highest dissatisfaction in the Arctic food value chain, awarding it a higher grade of dissatisfaction than regulations, technology, financing or collaboration. Infrastructure seemed to impact every aspect of the food chain, from producers saying the cost of transportation outweighed their cost of production[66] to transporters telling us they had to maintain duplicate assets, such as two types of aircraft to serve communities with both paved and unpaved air strips.[67]

Dissenting opinions were also heard, including interviewees who pointed to abandoned infrastructure projects such as an abattoir in Hay River and noted that even with infrastructure present the challenge of capacity remains. These individuals urged us to ensure that any cluster not only address infrastructure challenges, but address these concurrently with capacity challenges:

"People tend to say infrastructure [is the biggest challenge] but I … would look at human capacity building — really having strong local actors and local champions to carry projects, and at the policy level having policies that incentivize doing [educational and capacity-building] projects. Once that's done, I would look at infrastructure, [but] some foundational work needs to be done before infrastructure, because if the communities don't have the capacity to manage it then infrastructure will not help."[68]

In addition to transportation infrastructure, northern Canada also faces issues related to technological infrastructure, including slow and expensive broadband and wireless services, with one respondent comparing their region's broadband to that of a third-world country.[69] Yet, broadly, respondents seemed satisfied with the degree of technological integration, with several saying there was an inappropriate focus on technology driven by the south. One respondent felt "there is lots of misplaced emphasis on technology. It has its place, but we need to look at it as part of a wider picture, [which] needs to be driven by community."[70] Respondents also said technical solutions require technical people to fix them; a far more costly challenge in the North than in Southern Canada. The lack of transportation further hinders the ability of local producers to access private financing, as profit margins are significantly eroded by transportation costs. This is paradoxical as only major capital investments (presumably partly funded through private financing) are required to address these transportation issues.

Regional Differences, Climate, Geography

Respondents strongly cautioned that any cluster would need to be responsive to regional nuances. These nuances include vast differences in infrastructure (availability in Yukon of the Alaska Highway for transportation, as opposed to fly-in only communities in Nunavut, for instance), regulatory frameworks (again, the Yukon was seen as stronger than other territories), agri-food sector maturity, population density, climate, and susceptibility to climate change. For example, from a food security lens, it was noted that "the Northwest Territories and Yukon are all about growing food and livestock, whereas in the tundra and Inuit regions [you would have to build] that culture of growing from scratch… hunting would be seen as the primary solution [to food insecurity]. If you focus on hunting, you'd have greater gains in calories and nutrition than, say, spending a lot of effort setting up a greenhouse and finding someone to run it."[71]

66 Kevin Wallington, Director of Marketing and Sales, Polar Egg, Hay River, Northwest Territories
67 Duane Wilson, Vice-President, Stakeholder Relations, Arctic Co-operatives Limited.
68 Nathan Cohen-Fournier, Socio-Economic Development Officer, Makivik Corp.
69 Kyle Tattuinee, Business Advisor, Commercial Harvesting, Nunavut Development Corporation.
70 Respondent requested anonymity.
71 Wade Thorhaug, Executive Director, Qajuqturvik Food Centre.

Sustainability

Northern populations have traditionally relied on hunting, fishing, and other forms of local resource use for their survival. These resources are increasingly limited for various reasons, including climate change, environmental pollution, urbanization and limited wildlife management strategies, including for fisheries. As such, not all interviewees favoured economic development if it meant unsustainable exploitation of locally owned resources. Indeed, representatives from the Yukon Anti-Poverty Coalition gave the example of a group of northern Manitoba women who felt leveraging traditional resources for commercial enterprise was antithetical to their values.[72] Concerns were raised about the degree to which any resource could be sustainably used to bring economic development to local communities and alleviate food insecurity while maintaining stocks for future generations. The Task Force understands that SDWG shares many of these concerns, particularly given the fragile status of many of the existing traditional food sources. As a result, any AFIC would necessarily focus on food stocks that do not form part of traditional subsistence harvests.

> ***"Quite a number of projects have tried to leverage demand for Arctic food and have realized that it's much more than demand; it's also about the capacity to manage these projects locally. Support for these projects goes beyond funding into guidance and mentorship."***
>
> Nathan Cohen-Fournier
> of Makivik Corporation

Regulations, Standards and Certification, Access to Markets

The regulatory environment in Canada's North appeared to be polarized, with respondents vexed by the inflexibility of federal regulations, particularly regarding production of animal agriculture, where distant and/or costly inspection and grading regulators were cited as a costly and time-consuming barrier to selling local food. In comparison, other respondents expressed frustration with regulations in the Northwest Territories and Nunavut that were unclear or non-existent, undermining consumer trust.

One of the interesting trends noted was the lack of trust and/or knowledge of the value of Canadian northern products by locally based consumers. Outside the North, including both in Canada's south and internationally, northern-produced foods are considered desirable and even luxury items. Yet populations in the North were described as either unaware of the value of northern certifications or, in some cases, particularly historically, distrusting of northern foods due to the lower regulatory environment in which they were produced relative to southern products.[73] One interviewee said: "The Ministry of Agriculture, Fisheries and Food has a program to develop reserved designations and added-value claims. The Nordic designation is not a meaningful term to represent northern products, according to local residents."[74]

STRENGTHS

Despite the challenges in Canada's Arctic, which our findings clearly highlight, the strongest finding of this research is perhaps the emergence of several core strengths in the North that could help in the design of an innovation cluster aimed at improving food insecurity.

These strengths include a wealth of social capital and its potential to grow in the North, specialized knowledge not readily available in the south, extensive experience working with unorthodox business models, and leveraging public funds for public good, as well as the unique value proposition of northern-branded products. We explore these strengths further below.

72 Kristina Craig, Executive Director and Kendall Hammond, Public Policy Researcher, Yukon Anti-Poverty Coalition.
73 Kevin Wallington, Director of Marketing and Sales, Polar Egg, Hay River, Northwest Territories
74 Lyse Roberge, Conseillère en transformation alimentaire, ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec, unofficially translated from French to English by team members. The project Lyse referred to can be found here: https://www.mapaq.gouv.qc.ca/fr/Transformation/md/programmesliste/developpementmarches/Pages/appuiaudeveloppementappellationsreservees.aspx

Strength of Community and Social Capital

While this report has discussed issues around communication and stakeholder frustrations about a lack of connection with one another, we believe at the local level many northern communities have a competitive advantage rooted in their close-knit relationships, extraordinary resilience, and deep commitment to survival in the North. This motivation and pride, combined with the size of the communities and collective reliance on neighbours for survival, are powerful catalysts for trust. Some examples of grassroots social capital efforts came to light during our research, including small-scale collaborative efforts to get dedicated trucks to drive between Whitehorse and Yellowknife as well as between producers, grocery stores, and community kitchens.[75] Given the increasing recognition of the importance of community-owned programs, this provides an excellent opportunity for a social capital venture, based in the food industry, to fuel community economic development and capitalize on the strengths identified above, while adhering to current best practices around Indigenous-centred projects in the age of reconciliation.

Specialized Local Knowledge

We have already mentioned the lack of robust community capacity and formal education opportunities valued by southern institutions, however, what cannot be overlooked is the unique and specialized local knowledge held by Indigenous and local residents in Canada's North. Increasingly, initiatives are emerging in communities to ensure that knowledge is preserved from generation to generation. Indigenous local populations are also on the front lines of climate change climate change and are thus well-positioned to proactively monitor, adapt to, and report on the changing North and its impact on the food chain.

75 Kevin Wallington is running an initiative to get a dedicated truck to deliver food between Whitehorse and Yellowknife, and Julie Price referenced a series of NGOs building an informal transportation network between grocery stores, abattoirs and community kitchens. Both models rely on a road-based transportation network.

Relevant Experience

Select northern communities have experience producing, marketing and selling unique goods such as seal meat, traditional clothing, tourism services and art. This expertise may prove fruitful in enabling a mentorship-type arrangement whereby communities with this expertise can share it with others as they enter a social enterprise or other economic development venture together.

It was also noted that most businesses in Canada's Arctic have pre-existing relationships with government partners and are familiar with the process and necessity of applying for funding and reporting to government where funding has been granted. This expertise enables these stakeholders to provide substantive and meaningful feedback to government funders to improve the streamlining of existing funding processes, which will lower barriers to entry for businesses not familiar with these processes.

Particularity of the Arctic Brand

While some respondents expressed concerns about the trust that locals had in northern-produced foods, virtually all respondents recognized there was an untapped market for northern foods in the south, as well as overseas. As Jennifer Miller, Director General of the Innovation Superclusters Initiative, noted: "Canada's brand on food is safe, reliable, high quality. The North brings a 'superbrand'; it's unique food, sustainable, clean and safe. This is important because clusters need strong and recognizable brands that attract investments, customers and partners."[76] The unique traditional knowledge held by many in northern communities provides the groundwork for patented knowledge or even protected designation of origin certifications in the region.

76 Jennifer Miller, Director General, Innovation Superclusters Initiative, Innovation, Science and Economic Development Canada.

RECOMMENDATIONS

After extensive reading and consultation with food value chain stakeholders, the project team has the following conclusions and recommendations to offer as a blueprint for an Arctic Food Innovation Cluster in Canada:

Canada's North: An Opportunity for a Non-Traditional Cluster

The underlying factors that create challenges for Canada's northern food chain have been broken into three areas: Money, People and Place. Analysis of these challenges reveals Canada's North lacks most of the major drivers required for the organic emergence of a traditional cluster. First, there is no uniform food production process across Canada's entire North. Second, there is no condensed labour market required for economies of scale. Third, there is no readily accessible, large, local, consumer-driven market for a variety of Canadian Arctic food products, although certain niche products enjoy some advantages. As a result, we believe Canada's northern food industry would not have met the definition of cluster used by the federal government during its 2017 innovation supercluster competition and therefore could not have created a consortium that qualified for funding. This position is supported by conversations the project team had with Jennifer Miller, Director General, Innovation Superclusters Initiative, Innovation, Science and Economic Development Canada, and Matthew Hebb, past-interim CEO of Canada's Ocean Supercluster, both of whom provided insight into the restrictive interpretation of clusters adopted by the federal government. In short, treating Canada's northern food industry like a traditional cluster or attempting to create a northern food industry cluster that aims to mainly leverage market forces is not appropriate.

Nevertheless, as noted in our literature review, clusters may also be driven by social, institutional and cultural factors. We believe the idiosyncrasies of Canada's North, specifically the small community of food producers working under similar, unusually harsh conditions, have a shared experience that, if supported appropriately, could be uniquely leveraged to build a cluster based on social drivers. Importantly, we believe that should a consortium of northern food chain stakeholders be brought together, this cluster could address some of the major financing difficulties uncovered in our research. Specifically, by granting funding to a group who would then divide funds accordingly by project, financing decisions could be streamlined, with the bureaucratic processes for acquiring funding managed centrally, and timing of funding delivery optimized. This could empower local producers, distributors and other local decision makers by lowering hurdles to effective, useful financing. Given this potential, while this report cannot deliver all the answers, we believe there is potential for a cluster model to add value and work for Canada's northern food chain.

A Non-Traditional Cluster in Canada's North: Selecting a Cluster Theme

In addition to helping address funding issues, a northern cluster model could also bring a holistic approach to addressing food insecurity. The central co-ordination of a cluster could promote strategic specialization by communities, help avoid duplication of efforts, and facilitate the identification and sharing of best practices. The cluster model would effectively allow for multiple simultaneous, co-ordinated efforts to address various shared problems. A cluster would aim to promote good communication between communities and enable collective identification of opportunities.

As Jennifer Miller told us, however, "the hard part of building a cluster is to find out what opportunities to pursue and what relationships to create." In light of this, we note that many problems faced by Canada's northern food chain are not specific to food producers.

For example, one of the most important issues for a cluster to address — transportation — has just as much of an effect on the provision of other essential items, health care, and resource movement. We therefore suggest that as the institution of a cluster is considered, it need not necessarily be limited to food chain stakeholders. We do recommend the cluster rally around a theme that maximizes the likelihood of solutions expressly intended to benefit northern communities in multiple ways at once. Only by strengthening communities in a holistic way is food security likely to be addressed. The cluster would thus require an express mandate of community development and re-investment rather than operate off the traditional cluster assumption that economic spinoff benefits will automatically improve community food outcomes.

The exact delimiting criteria for cluster membership is therefore a critical next step in the development of a northern cluster. Our research shows there already exists considerable expertise amongst stakeholders running social enterprises and the challenges associated with them. Food-related social enterprise structures already have a track record of success in the North, as evidenced by the various Arctic food co-ops, as well as Baffin Fisheries and the Inuvik Community Greenhouse. The needs these ventures articulate, however — better infrastructure, financing, mentorship and capacity-development — are not specific to their industry. As Nathan Cohen-Fournier of Makivik Corporation noted: "Quite a number of projects have tried to leverage demand for Arctic food and have realized that it's much more than demand; it's also about the capacity to manage these projects locally. Support for these projects goes beyond funding into guidance and mentorship."[77] To build a critical mass of capacity, including other industries in a cluster initiative, therefore makes sense, though social enterprise should be maintained as the theme for creating solutions. The project team would therefore suggest social enterprise be considered as the backbone theme for the northern cluster.

RECOMMENDATION #1:

Consider social enterprise as a core theme for Canada's northern cluster. This would mean designing a cluster where personnel and participants are selected for their familiarity with and commitment to social enterprise models that have proven to be well adapted to northern constraints. This could also mean social enterprise solutions such as public/private infrastructure ownership or micro-financing are used as tools for cluster solutions.

RECOMMENDATION #2:

Consider establishing a cluster that is not exclusively composed of food chain stakeholders but rather incorporates other community entities also impacted by the same challenges affecting the food chain (e.g., transportation). This would allow the cluster to propose solutions that offer re-investment in community and broad social benefits.

77 Nathan Cohen-Fournier, Socio-Economic Development Officer, Makivik Corporation.

A Non-Traditional Cluster in Canada's North: Strategy for Structure

To continue work on this proposal and begin the efforts necessary to formally pull a cluster together, at least one individual must be dedicated full time. This individual should have knowledge of Canada's North, knowledge of the Indigenous context, strong relationship-building capacity and ideally experience with social enterprise and social financing. Beyond this, the stakeholders who should be engaged within this structure will need to evolve over time as the group identifies and selects areas of project focus.

Over time, a full spectrum of food value chain actors would be necessarily engaged in the work of the proposed cluster. This may include producers, transporters, vendors, distributors, government (including Indigenous and traditional leaders), academics and others. As mentioned, however, other stakeholders could be invited to participate and leveraged according to their interests overlapping with the primary challenges the cluster will tackle. Once fully researched and launched, the cluster composition may be more limited, refined to representatives from selected community-based social enterprise projects, mentors, and other experts as needed, including those needed for governance or co-ordination.

RECOMMENDATION #3:

Appoint/designate an interim cluster CEO or lead researcher to continue research and outreach full time. This person will need knowledge of Canada's northern and remote communities, knowledge of the Indigenous context, strong relationship-building capacity, knowledge of cluster design and ideally experience working in contexts that are not strictly profit motivated.

RECOMMENDATION #4:

Identify local community partners outside the food value chain who might benefit from this cluster and engage with them.

A Non-Traditional Cluster in Canada's North: Strategy for Engagement

Before this research begins, there are a number of operational questions to address to support this work, including but not limited to: location of the research team; reporting lines, including connections to national and international bodies such as the Arctic Council; location, frequency and participation of consultations; preliminary budget, and more.

In addition to operational questions, there are a number of steps the project team would suggest that the next round of research undertake. These include:

- Gaining a more robust understanding of the community-level perspectives of the issues identified in this report, particularly among Indigenous communities. The Task Force notes that much of the existing literature does not acknowledge and recognize the nuances of local community-level perspectives on economic development and food insecurity.
- Understanding what kind of social enterprises could be meaningfully adopted within Canada's North, with consideration for unique geographic, social and cultural contexts, and with an eye to long-term sustainability beyond government funding cycles.
- Identifying what kind of appetite would exist among all levels of government and the private sector to contribute to this kind of initiative.
- Qualifying what kind of capacity gaps exist at the local community level that would need to be overcome to ensure success of an eventual cluster that aims to support communities in addressing and overcoming these gaps.
- Selecting which community strengths should be mainstreamed within the cluster. For example, what resource, cultural or other unique factors could inspire social enterprise projects besides food.
- Validating the assumption that a cluster of this type could meaningfully impact food insecurity and foster increased economic development in Canada's North.
- Narrowing the geographic scope of the cluster's reach for a trial period.

RECOMMENDATION #5:

Continue work and research into the feasibility and implementation of an Arctic Food Innovation Cluster. While a traditional cluster, based strictly on market factors, is unlikely to work in the North, a modified cluster model that leverages social catalysts could be beneficial by providing a funding mechanism that addresses financing issues raised by our respondents.

In the course of this research, it became clear that any cluster model will require significant additional research, consultation and relationship building. This would particularly need to be undertaken with Indigenous populations, recognizing the traditional land and resources that would be necessarily leveraged through such a cluster, as well as the integral role of community ownership and capacity growth. It was noted in three separate interviews that any discussion of food security would need to be undertaken in conjunction with land claims and issues of self-governance, indicating the complexity of the food security issues in Canada's North. It was also noted that it was essential to consider how country foods might be integrated into the scope of a cluster.[78]

RECOMMENDATION #6:

Formalize and action a plan for engaging Indigenous and local communities.

RECOMMENDATION #7:

Formalize a plan for addressing each of the seven key questions suggested by our research (see above).

78 Desmond Raymond, Senior Advisor to the Director OPP Engagement and Arctic Liaison at Transport Canada.

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INTERVIEWEES (Alphabetical by First Name)

Dr. David Natcher, Director, Indigenous Land Management Institute, Department of Agricultural and Resource Economics, College of Agriculture and Bioresources, University of Saskatchewan;

Desmond Raymond, Senior Advisor to the Director OPP Engagement and Arctic Liaison at Transport Canada — Transports Canada, Winnipeg;

Duane Wilson, Vice-President, Stakeholder Relations, Arctic Co-operatives Ltd., Winnipeg;

Jackie Milne, Founder and President, Northern Farm Training Institute, Northwest Territories;

Jennifer Miller, Director General, Innovation Superclusters Initiative, Innovation, Science and Economic Development Canada, Ottawa;

Joanna MacDonald, Climate Change and Health Officer, Inuit Circumpolar Council, Ottawa;

Julie Price, Program Lead, Northern Manitoba Food, Culture and Community Collaborative, Manitoba;

REFERENCES

INTERVIEWEES (Alphabetical by First Name)

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Kendall Hammond, Researcher, Yukon Anti-Poverty Coalition, Yukon;

Kevin Wallington, Director of Marketing and Sales, Polar Egg, Hay River, Northwest Territories;

Kristina Craig, Executive Director, Yukon Anti-Poverty Coalition, Yukon;

Kyle Tattuinee, Business Advisor, Commercial Harvesting, Nunavut Development Corporation, Rankin Inlet, Nunavut;

Louis-Antoine Gagné, Agent de développement sectoriel produits forestiers non ligneux, coordonnateur aux affaires autochtones et responsable en développement nordique, Direction du développement des secteurs agroalimentaires, Ministère de l'Agriculture, des Pêcheries et de l'Alimentation, Québec;

Lyse Roberge, Conseillère en transformation alimentaire, Direction régionale de l'Abitibi-Témiscamingue/ Nord-du-Québec, Entente spécifique pour le développement du secteur agroalimentaire au Nunavik, Ministère de l'Agriculture, des Pêcheries et de l'Alimentation, Québec;

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Marie-Ève Barbeau, Conseillère aux affaires autochtones — Direction régionale du Nord-du-Québec, Ministère des Affaires municipales et de l'Habitation, Québec;

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Molly Pratt, Communications and Research Officer, Arctic Institute of Community-Based Research, Yukon;

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