

**Regional-scale food security governance in Inuit settlement areas:
Opportunities and challenges in northern Canada**

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Abstract

Food insecurity among northern Inuit communities represents a significant public health challenge that requires immediate and integrated responses. In the Inuvialuit Settlement Region (ISR), in the Northwest Territories (NWT), almost half of households experience some degree of food insecurity (33% moderate, 13% severe), and rates are even higher in Nunavut (35% moderate, 34% severe). Currently, food security issues in the Arctic are being addressed by multiple initiatives at different scales; however, the role that governance and policy plays in fostering or hampering Inuit food security remains under-evaluated. We took a participatory-qualitative approach to investigate how food security governance structures and processes are functioning in Inuit settlement areas, using case studies of the Inuvialuit Settlement Region (ISR) and Nunavut, the latter of which has already developed a food security strategy through significant community consultation. Using 18 semi-structured interviews, we examined the development and implementation of the Nunavut Food Security Strategy (NFSS) and Action Plan to identify challenges and lessons learned, identified governance challenges and opportunities in the current way food policy decisions are made in the ISR, and determined ways to improve governance arrangements to address Inuit food security more effectively at a regional scale. Participants implicated in the NFSS process identified a number of challenges, including high rates of employee turnover, coordinating work with member organizations, and lack of a proper evaluation framework to measure the Strategy's outcomes. In terms of lessons learned, participants expressed the need to establish clear lines of accountability to achieve desired outcomes, and the importance of sufficient and sustained financial resources

and organizational capacity to address food security in a meaningful way. Similar themes were identified in the ISR; however, top-down government decision-making at the territorial level and an absence of meaningful community engagement from program administrators during the conceptualization of food security interventions were specific issues identified in this context. In terms of opportunities for regional-scale food security governance, the Government of Northwest Territories (GNWT) is in the process of developing a Country Food Strategy that will engage with a range of stakeholders to develop a broader selection of country food programming.

These findings suggest that food security governance remains a key challenge for Inuit. First, sufficient resources are needed to address food security in a sustained manner. Second, existing and planned food security policies and programs should include an evaluation component to demonstrate greater accountability towards desired outcomes. Finally, findings point to the need to develop new collaborative, integrated, and inclusive food security governance arrangements that take into account local context, needs, and priorities. The NFSS is a useful model for collaborative food security governance from which other Inuit regions can learn and adapt.

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Acronyms

AAFC	Agriculture and Agri-food Canada
AANDC	Aboriginal Affairs and Northern Development Canada
CAPI	Canadian Agri-Food Policy Institute
CCA	Canadian Council of Academies
CFA	Canadian Federation of Agriculture
CHR	Community Health Representative
EDO	Economic Development Officer
FAO	Food and Agricultural Organization
ISR	Inuvialuit Settlement Region
IFA	Inuvialuit Final Agreement
IGC	Inuvialuit Game Council
IRC	Inuvialuit Regional Corporation
ITI	Industry, Tourism, and Investment
ITK	Inuit Tapiriit Kanatami
NWT	Northwest Territories
GNWT	Government of Northwest Territories
NFSS	Nunavut Food Security Strategy
NFSC	Nunavut Food Security Coalition
NFTI	Northern Farm Training Institute
SEED	Support for Entrepreneurs and Economic Development

Chapter 1: Introduction

Food insecurity presents a serious and growing public health challenge in Canada's northern and remote communities, which Inuit experience disproportionately compared to other Canadian households (Huet et al., 2012; Tarasuk et al., 2014; CCA, 2014). Results from the 2007-2008 Inuit Health Survey (IHS) show that Nunavut has the highest documented prevalence of food insecurity for any Indigenous population living in a developed nation (Rosol et al., 2011). In the Inuvialuit Settlement Region (ISR), part of the Northwest Territories (NWT), almost half of households experience some degree of food insecurity, with 33 percent experiencing moderate food insecurity, and 13 percent reporting severe food insecurity (Egeland, 2010). A report published by the Canadian Council of Academies (CCA, 2014) assessing the state of knowledge on Aboriginal food security, concluded that "the toll of food insecurity on human well-being and the economic costs of an emerging public health crisis in northern Canada represents serious concerns that require immediate attention and integrated responses" (CCA, 2014: xix).

Inuit regions are addressing high levels of food insecurity with a range of policies and programs occurring at multiple scales. At the national scale, the advocacy group Inuit Tapiriit Kanatami (ITK) is developing a food security strategy; Nunatsiavut implemented a regional-level community freezer program (Furgal et al., 2012; and Nunavik is researching alternative local food provisioning strategies (Avard, 2015). In the ISR, there are a range of programs addressing food (in) security; however, they are often ad hoc. Furthermore, there are often scalar mismatches, where the intention at the program administration level is not compatible with local priorities (Kenny et al., In

press). In Nunavut, a collaborative process took place to develop the Nunavut Food Security Strategy (NFSS) and Action Plan. The vision laid out in the document is: “All Nunavummiut will have access to an adequate supply of safe, culturally preferable, affordable, nutritious food, through a food system that promotes Inuit societal values, self-reliance, and environmental sustainability” (NFSC, 2014:4). The Nunavut Food Security Coalition (NFSC) identified six thematic areas, including a mission and rationale, and defined several objectives for each theme to achieve their collective vision of a food secure Nunavut. This Strategy and Action Plan provided a collaborative effort to promote food security across the region, and plans are in place to renew the government’s commitment to this issue. Decision-makers in the ISR are also looking to develop a regional food security strategy that is reflective of local needs and priorities. As self-governing Inuit regions with small populations in remote communities who rely on similar food sources, there are significant similarities between the ISR and Nunavut that one can learn from. Over the past five years, researchers at the University of Ottawa have been working closely with members of the Inuvialuit Regional Corporation (IRC: land claim organization) and ISR communities to develop a number of participatory research activities related to food security. This included two regional workshops held since 2012, which highlighted governance and policy as key ISR food security priorities (Fillion et al., 2014).

1.1 Purpose of the Study

The role of governance has been receiving increasing attention from food security scholars in recent years (Drimie & Ruysenaar, 2010; Candel, 2014; Sonnino et al., 2014; Termeer et al., 2017). This stems from the notion that food security should not only address the technical and environmental dimensions of the issue, but also take social, economic, and political aspects into account (von Braun, 2009; Wahlqvist et al., 2012; Maye & Kirkwan, 2013). Concerns that relate to governance and policy challenges have been identified as primary drivers of food insecurity in Canada's North (Loring & Gerlach, 2015). In spite of the recognition that governance is a precursor to achieving food security in the North (CCA, 2014), the ISR has seen little focus on understanding governance structures and needs at a regional scale, and little is known about more appropriate forms of governance arrangements that can improve food security outcomes (Candel, 2014). The CCA (2014) identifies a need to better understand the interconnected relationships with local, regional, and national levels of governance that support action on food security. Candel (2014) argues that current literature focusses on what food security governance should look like, instead of how food related decision-making is functioning at present. In Canada's North, the role that governance can play in hampering or improving food security outcomes remains under-assessed (CCA, 2014). This research addresses this gap by conducting a qualitative participatory-research process focussed on identifying challenges and opportunities for implementing effective food security governance arrangements in the ISR in a type of food system that is both complex and understudied (CCA, 2014). Specific objectives include:

1. Examining the development and implementation of the Nunavut Food Security Strategy and Action Plan (NFSC, 2014), and identifying challenges and lessons learned;
2. Identifying governance challenges and opportunities in the current way food policy decisions are made in the ISR;
3. Determining ways to improve governance arrangements to address food security more effectively at a regional scale.

There is no single way to “solve” food security; rather, it is a complex issue that will require integrated, multi-scalar collaboration and policy responses that focus on root causes (CCA, 2014). Presently, food security initiatives in the ISR tend to focus too heavily on short-term relief, and community-based programs (e.g. cooking circles, harvester programs, and community freezers) (Kenny et al., In press). ISR decision-makers are now looking beyond local initiatives to support food security from a regional scale. This will first require a solid understanding of the existing governance context, including opportunities and challenges that need to be addressed moving forward. This research project will further our understanding on the nature of food security governance arrangements by using an existing framework to evaluate the NFSS. It will also provide recommendations to support the development and implementation of an ISR regional food security strategy.

1.2 Thesis Structure

This thesis is divided into six chapters. Chapter one introduces the topic and the purpose of this research, outlining the research objectives to guide and develop a more in-depth understanding of challenges and opportunities for food security governance in the ISR. Chapter two provides an overview of food (in)security in Canada, followed by a specific look at Inuit food (in)security, components of the food system (country food and market food), as well as stressors for each. The next section discusses the concept of food security governance. Chapter 3 describes the methodological approach taken and the methods used for data collection and analysis. Chapter 4 (results) is divided into two sections. The first section provides an overview of the NFSS, as well as challenges and lessons learned that emerged through interviews with participants who were involved in developing and implementing the Strategy. The second section provides an overview of the food security governance landscape in the ISR, as well as challenges and opportunities for regional-scale food security governance in the region that emerged through interviews with a range of stakeholders in Yellowknife and Inuvik. Chapter 5 proposes how to move forward on food security in the IRS. Chapter 6 concludes with presenting key research findings, discussing limitations of this work, the contribution it makes to our understanding of food security governance in northern/remote context, and the next steps that are required to move ahead on this body of work.

Chapter 2: Literature Review

This chapter reviews the bodies of literature pertinent to the context of this research. The first section describes the state of Inuit food (in) security, components of the food system (country food and market food), as well as stressors for each. The next section presents the emergence of food security governance and the food system concept.

2.1 Food Security in Canada

Food (in)security is a significant public health concern worldwide. In 2015, roughly 795 million people were undernourished globally, many living in impoverished conditions (FAO, 2015, p.57). The Food and Agriculture Organization of the United Nations defines food security as existing “when all people, at all times, have physical, social, and economic access to sufficient, safe and nutritious food which meets their needs and food preferences for an active and healthy lifestyle” (FAO, 2015). Conversely, food insecurity occurs when one or more members of a household do not have access to a sufficient amount of healthy foods, usually due to financial restraints (Tarasuk et al., 2014). Where food (in)security was once perceived as a challenge exclusively faced by developing states (Maxwell & Smith, 1992), it is rapidly becoming a concern for population segments in industrialized states, including Canada (Maxwell, 1996). Rates of food insecurity in Canada have been increasing in the last several decades as changing social and economic conditions have compromised the ability of some groups to access quality foods (McIntyre, 2003; Tarasuk, 2005). Results from Canadian Community Health Survey in 2008 reported that 11.3 percent of Canadian households, or about 3.4 million Canadians, experienced some degree of food insecurity. By 2011, that rate increased to 12.3 percent, adding an additional 450,000 Canadians living in a

state of food insecurity (Tarasuk et al., 2014). Food bank usage, one of the indicators of food insecurity, has been steadily increasing since 2008. For example, a total of 675,735 Canadians were assisted by a food bank in 2008 and in 2016, it had increased to 863,492 people (Food Bank Canada, 2016). What was established as a short-term immediate relief for those in need has become the norm for many Canadians (Riches, 2002; Tarasuk, 2005), including 36 percent who are children and youth (Food Bank Canada, 2016).

In response to these high rates of food insecurity, the Government of Canada has committed to develop a national food policy (Food Secure Canada, 2015). Northern priorities were identified through consultation and engagement with Indigenous communities, including “committing to an inclusive and evolving governance process that enables continual and meaningful participation by Indigenous and northern communities; and allocate resources to support this participation” (p.1). Additionally, Agriculture and Agri-food Canada (AAFC) has developed *Growing Forward 2*, a five-year (2013-2018) policy framework to invest \$3 billion dollars in Canada’s agriculture Sector (AAFC, 2017); the Canadian Federation of Agriculture (CFA) is working on an industry-led National Food Strategy; the Conference Board of Canada is introducing a Centre for Food in Canada (Conference Board of Canada, n.a), and the Canadian Agri-Food Policy Institute (CAPI) has called for drastic changes in food policy decisions (CAPI, 2016). Despite these commitments, rates of food insecurity among Inuit in northern Canada remain higher than that of the national average (Huet et al., 2012; Tarasuk et al., 2014; CCA, 2014), and represents a significant public health challenge that requires immediate and integrated responses (CCA, 2014).

2.2 Inuit Food Security

The Inuit homeland (Nunangat) comprises of four is home to Inuit Land Claim regions: Nunatsiavut (Labrador), Nunavik (northern Quebec), Nunavut (comprising the Kitikmeot, Kivalliq, and Baffin regions), and the ISR (Northwest Territories). In northern Canada, the toll of food insecurity is a major public issue (CCA, 2014), which Inuit households experience disproportionately compared to other Canadian households (Huet et al., 2011; Tarasuk et al., 2013). The 2007-2008 Inuit Health Survey (Saudny et al., 2012), the most comprehensive Inuit health assessment across Canada among Inuit adults (n=1901 households), classified 62.6 percent of Inuit living in a state of food insecurity. Regionally, Nunavut has the highest recorded prevalence of food insecurity for any Indigenous population living in a developed nation (Rosol et al., 2011). In the Inuvialuit Settlement Region (ISR), Northwest Territories (NWT), almost half of households experience some degree of food insecurity, with 33 percent experiencing moderate food insecurity, and 13 percent reporting severe food insecurity (Egeland, 2010). In contrast, over the same period, 7.7 percent of Canadian households experienced food insecurity (Health Canada, Food Branch, 2012). In Inuit communities, food insecurity has been linked to poor dietary quality (Huet et al., 2012), micronutrient deficiencies (Jamieson et al., 2012), chronic health issues such as obesity and anemia (Egeland et al., 2011), poor educational performance, and family stress (Lambden et al., 2006). The main factors influencing food insecurity cited include lack of employment, low income, and the high cost of food (Egeland, 2010).

The Inuit food system is comprised of country foods (also known as native or traditional foods) and market foods (also known as store-bought foods). Food systems, as defined

by Gregory et al. (2005), are “dynamic interactions between and within biophysical and human environments which result in the production, processing, distribution, preparation and consumption of food” (p. 2141). The food system can be conceptualized according to four pillars: availability, accessibility, use, and quality of food (FAO, 2006). The Nunavut Food Security Coalition has identified some factors that affect each pillar in the Inuit context (Figure 1). Prior to European contact, Inuit lived off the land and practiced a nomadic, hunter-gatherer way of life. They relied on food-gathering activities such as harvesting, and hunting animal, bird, and fish species for subsistence (Hanrahan, 2008). Contact with European settlers and colonization had a profound impact on the traditional practices of the First Nations, Métis, and Inuit in Canada. A history of environmental injustice related to intensive resource extraction (e.g. mining, displacement, hydro development, and deforestation) (Higham, 2012) and aggressive assimilation measures introduced by the federal government in the form of residential school in the 19th century, has shaped and constrained these rights and relationships (CCA, 2014). Colonization, defined as “the oppression of one distinct people by another, usually separated by a significant spatial distance” (Kulchyski, 2005, p.405), has resulted in drastic changes to culture, diet, health, and traditional lands of Inuit. The northern diet significantly altered post-European contact, with an increased reliance on imported market foods compared to country foods (Duhaime et al., 2002). Each of these food system components and their use among Inuit is discussed in the sections that follow.

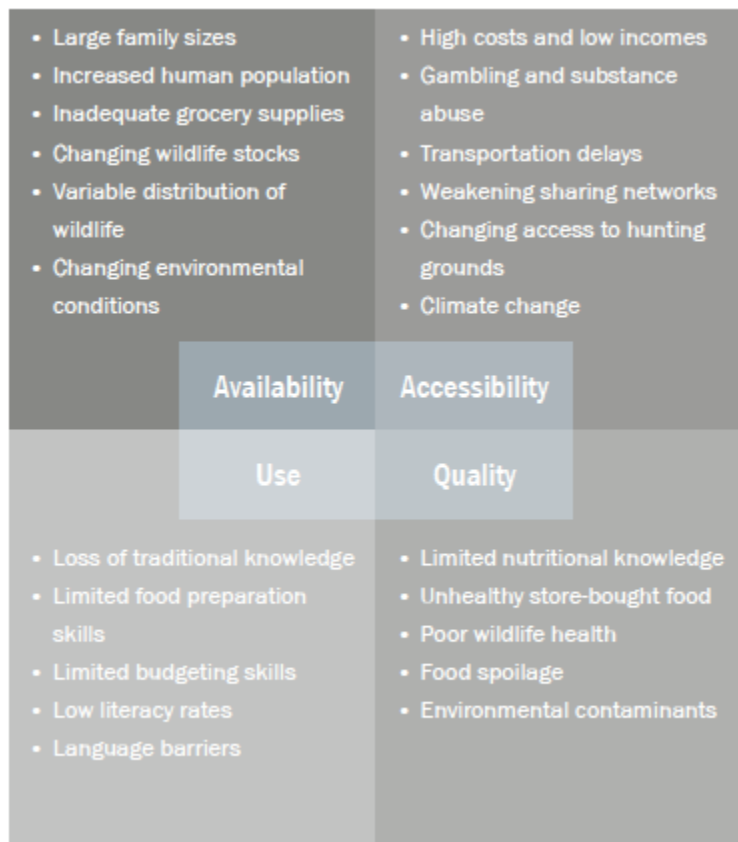


Figure 1 Four pillars of northern food security and relevant factors (NFSC, 2014)

2.1.1 Country foods

The importance of country food as a critical resource for the well-being of northern populations is well documented (VanOostdam et al., 2005), and it is recognized as a fundamental pillar of the food security of Inuit (Inuit Tapiriit Kanatami and Inuit Circumpolar Health, 2012). Kuhnlein et al. (2009) define country foods as “foods that Indigenous Peoples have access to locally, without having to purchase them, and within traditional knowledge and the natural environment from farming or wild harvesting” (p.3). Country food procurement and consumption improves dietary nutrition, strengthens social cohesion and cultural identity, and contributes to the local economy

(Kuhnlein et al., 2009). Lambden et al. (2007) also argue that country foods are healthy and nutritious, inexpensive, socially and culturally beneficial, and contribute to sustainable, self-reliant communities. Consumption of country food such as caribou, moose, fish (whitefish, char, trout), and seal have shown to provide a higher intake of essential nutrients needed for a healthy diet (Kuhnlein et al., 2009). Hunting and fishing, as well as harvesting from the land, are common activities in the ISR that supports country food consumption. Key country food species consumed by the Inuvialuit include caribou, berries, char, goose, whitefish trout and beluga (Egeland, 2010: Figure 2). Char and caribou represent the country foods that are consumed in the greatest quantity among Inuvialuit (Egeland, 2010).

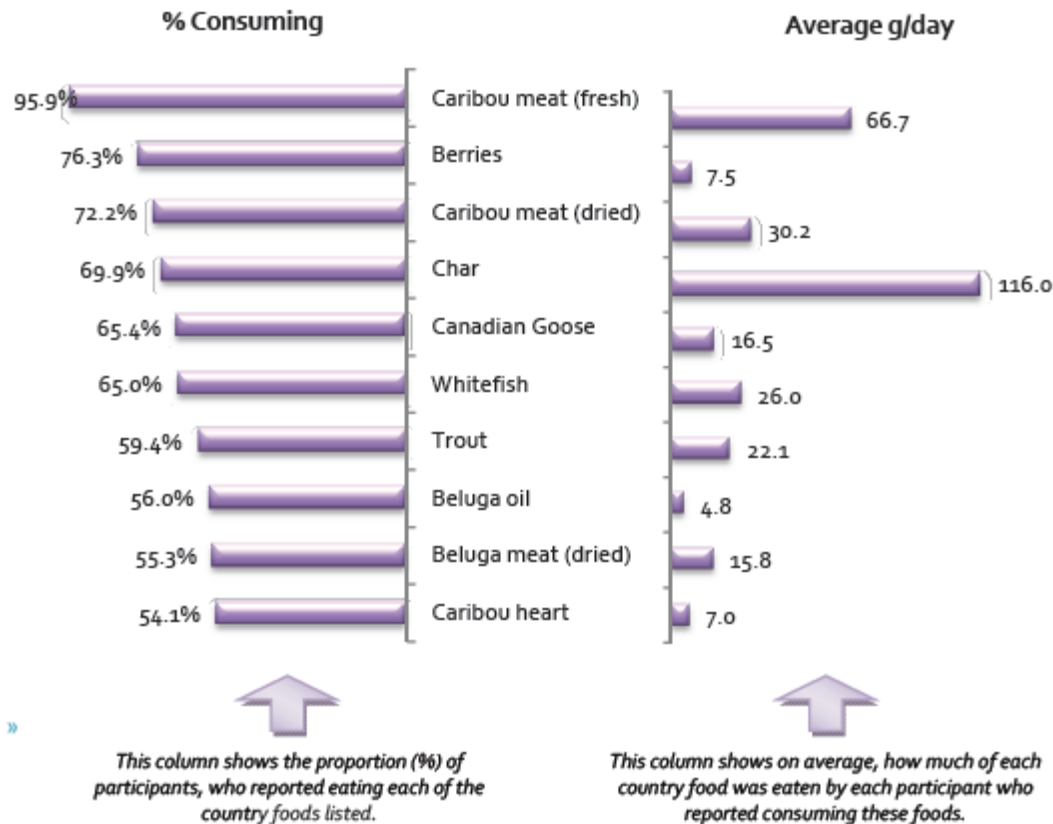


Figure 2 Most commonly consumed traditional food in the ISR (Egeland, 2010)

2.1.2 Market Foods

Market foods were first introduced in the Inuit diet during European contact and colonization, and later through the settlement of communities (Hanrahan, 2008). Market foods are available for purchase at grocery stores (Chan et al., 2006; Mead et al., 2010), and offer include a variety of perishables and confection goods (Chan et al., 2006). Bulk items are typically shipped by barge whereas air freight is used to stock and restock perishable foods, such as fruits and vegetables, and dairy products (Mead et al., 2010). Over the past 50 years, market foods have played a greater role in the Inuit diet at the expense of country foods (Ford, 2009). Food insecurity coupled with a transition

from nutrient-rich country food sources to increased consumption of highly processed foods presents a serious issue for northerners (Egeland et al., 2010; Huet et al., 2012). A shift from country foods to market foods has been shown to impact dietary quality given the higher intake of carbohydrates, fat, and sucrose found in store-bought goods (Kuhnlein et al., 2004; CCA, 2014).

2.1.3 Challenges related to Country and Market Foods

Both country and market food components of the Inuit food system have changed in the last two decades as a result of changes in northern ecological, social, political, and economic systems (Ford, 2009). Shifting arctic climate conditions have caused changes in wildlife availability and accessibility in northern Aboriginal communities (Guyot et al., 2006; Berner et al., 2005), including relying on alternative species for consumption in certain areas (Wesche & Chan, 2010). These changes to northern environments/landscapes (e.g., ice safety, extreme weather events) also impact the ability of harvesters to safely access traditional food sources. Changes in environmental conditions have also raised concerns over food safety due to threats from environmental contaminants (VanOosdam et al., 2005). Changing climate conditions, coupled with increased arctic commercial activity (e.g., mining, oil and gas development, arctic shipping, etc.), will likely introduce unprecedented challenges for the sustainable management of wildlife, with important implications for country food access and food security. Similarly, changing socioeconomic conditions including weakening of food sharing networks, loss of traditional knowledge of hunting and harvesting practices (Furgal & Seguin, 2006; Ford, 2009; Bolton et al., 2011) also act as barriers to achieving food security in the North.

The high cost of food in the North is also problematic. Rosol et al., (2011) found that the average weekly cost of groceries in Nunavut, the ISR, and Nunatsiavut in 2007-2008 was \$380, or \$19,760 per year. In contrast, nearly 50 percent (49.6 percent) of Inuit adults earned less than \$20,000 in the previous year (Rosol et al., 2011). Other factors including high cargo and plane rates, distance of travel of store-bought foods from southern markets, and limited warehouse storage space all contribute to higher food prices in the North (CCA, 2014). In addition to high food costs, limited availability and quality of nutritious market foods coupled with a lack of nutritional knowledge regarding market foods, have been linked with food insecurity among Inuit (Beaumier & Ford, 2010).

As a result of these challenges, communities and government at various scales have implemented many strategies and programs to support food security in the North. Public health policies with broad social implications should be founded in evidence-based-decision-making, the impulse to act often leads to food security initiatives that are ineffective, over budget, and fail to reach their target audience (Barrett, 2002). For example, Northern food subsidy programs have been in operation since the 1960s (e.g. the federal Food Mail Program, 1999-2011) and continues to be a pillar in the federal government's strategy to promote access and availability of quality food in remote northern communities. As part of Canada's Northern Strategy, the government launched the Nutrition North Canada Program (NCC) (2011-present) to subsidize costs of transporting food to isolated communities (Government of Canada, n.d.). The report showed that the department had not based community eligibility on need, failed to verify

whether the subsidies were properly passed down to consumers, and neglected to build-in indicators to measure the program's success.

Continued colonial policies enacted by the federal government in the mid-twentieth century have systematically undermined the sovereignty of Inuit communities to access traditional food sources (Bonesteel & Anderson, 2008). The concept of food sovereignty was first popularized by La Via Campesina, a global movement, and was a central theme of the World Food Summit in 1996 (Windfuhr & Jonsén, 2005). Food sovereignty is defined by Jarosz (2014) as the “right of each nation to maintain and develop its own capacity to produce its basic food needs respecting cultural and productive diversity” (p.173). According to Desmarais & Wittman (2014), food sovereignty is a notion that values strengthening community, enhancing livelihood, and ensuring that nutritious and culturally appropriate foods are produced, distributed, and consumed in a socially and environmentally sustainable manner. Rudolph & McLachlan (2013) highlight the contrast between conventional approaches to food security, which prioritizes the supply of food in a globalized economy, with food sovereignty, which recognizes that food is more than a commodity, and prioritizes local food systems and bottom-up decision-making. In an Indigenous context, food sovereignty “speaks to the importance of individuals’ and communities’ abilities to take control of their own food production, preparation, and consumption, as well as obtaining the necessary education, knowledge, and skills to achieve food security” (CCA, 2014, p.170). According to Jarosz (2014), promoting food sovereignty is a necessary precursor for achieving food security in the North. Food security and food sovereignty are linked to the right of Inuit to access and harvest from the land. Indigenous control over and influence on these matters are

constitutionally protected through harvesting rights, comprehensive land claim agreements, as well as self-government agreements (CCA, 2014). Various institutional structures have impacted the autonomy of northern Indigenous Peoples and their ability to influence outcomes that would lead to better health, including access to traditional lands and food sources (MacIntosh, 2012). While the concept of food sovereignty provides an important frame, it is beyond the scope of this research. Against this background, the role that policy and governance plays in improving or hampering food (in)security remains under-evaluated (Loring & Gerlach, 2015). The emergence of food security governance will be discussed in the following section.

2.3 Food Security Governance

Food security has received much attention in the literature in recent years after the 2007-2008 and 2010 world food price hikes and the 2008 World Development Report, which advocated for greater investments in the agricultural sector in developing countries (Candel, 2014). It has become increasingly clear that food security is strongly interlinked with other issues such as poverty reduction, climate change, and globalization and that its policy environment is undergoing rapid transformations (Lang et al., 2009; Ingram et al., 2010). To enhance the necessary broader discussion on food security, some have promoted the 'food system concept' (Ingram, 2011). It begins with the premise that much of the food security debate has traditionally focused on agricultural production and hunger alleviation, and that consequent interventions were narrow-minded and failed to take system complexities into account (Ingram, 2011). The food system concept aims to show the "interconnected relationships between various activities in the commodity chain (producing, distributing, trading, consuming of food);

various issues linked to food security outcomes (access, availability, utilisation, quality); various interactions across scales (time, space, jurisdiction) and various socio-economic and environmental constraints (Termeer et al., 2017, p.2). It is within this context that food security governance has received increased interest among decision-makers (Mooney & Hunt, 2009; Candel et al., 2014). Candel defines food security governance as the “formal and informal interactions across scales between public and/or private entities ultimately aiming at the realization of food availability, food access, and food utilization, and their stability over time” (2014, p.598). In addition to interactions aimed at addressing food (in)security, food security governance is about managing the context in which these interactions take place (Jessop, 2003). Approaching food from a system perspective reveals that current governance structures are ill-equipped to deal with complex problems, because it requires more holistic forms of governance (Termeer et al., 2017). Food security governance institutions are intrinsically fragmented and cut across multiple temporal and spatial scales and spheres of society (Termeer et al., 2017). As such, the complexities of the food system challenge the efficiency of conventional strategies and modes of governance (Siddiki et al., 2015).

Canada’s northern regions are not immune to these challenges. In their literature review on the state of food security in Canada and United States, Loring & Gerlach (2015) note that challenges such as climate change, community remoteness, and food prices all contribute to food insecurity. However, the primary drivers of food insecurity that they identified relate to governance and policy issues such as restrictive hunting and fishing regulations. In order to address the current fragmentation, overlap and ineffectiveness that characterize the current food security governance landscape, food security scholars

call for greater institutional capacity and a greater degree of coherence and coordination among stakeholders and different levels of government (Candel, 2014). Candel (2014) also argues that addressing the complex nature of food insecurity drivers will require integrated policy responses that will mutually reinforce one another, thereby contributing to shared outcomes and results. In Canada, there is also a need to better understand the roles and responsibilities of stakeholders implicated in food security initiatives across multiple levels of jurisdiction and opportunities for regional food security engagement across the North (CCA, 2014).

Chapter 3: Methodology

This chapter describes and discusses the methods used to conduct this research. It begins with the research approach and describes how and why a qualitative-participatory approach was applied to the research herein and is followed by methods used for data collection, conducting interviews, and data analysis. The final section discusses ethics, and includes a brief statement about my positionality, as well as how this research respects five principles of Indigenous research.

3.1 Research approach

A qualitative-participatory research design was used throughout this research, involving multiple scales of engagement and inquiry with stakeholders in Iqaluit, Inuvik, government officials in Yellowknife, and non-for-profit organizations. As the research was intended to get a base sense of the food security landscape in the ISR to facilitate the development of a regional food security strategy, questions addressed by this thesis are intended to be of scholarly significance and practical importance to decision-makers in the ISR. This thesis represents the culmination of two years of research (2016-2017), including one fieldwork visit to Yellowknife (six days) and Inuvik (six days). A scientific research license from the Aurora Research Institute (NWT) and ethics approval from the University of Ottawa (Appendix G) were secured for the work conducted in the ISR. A timeline of major milestones in the realization of this thesis is presented in Figure 3.

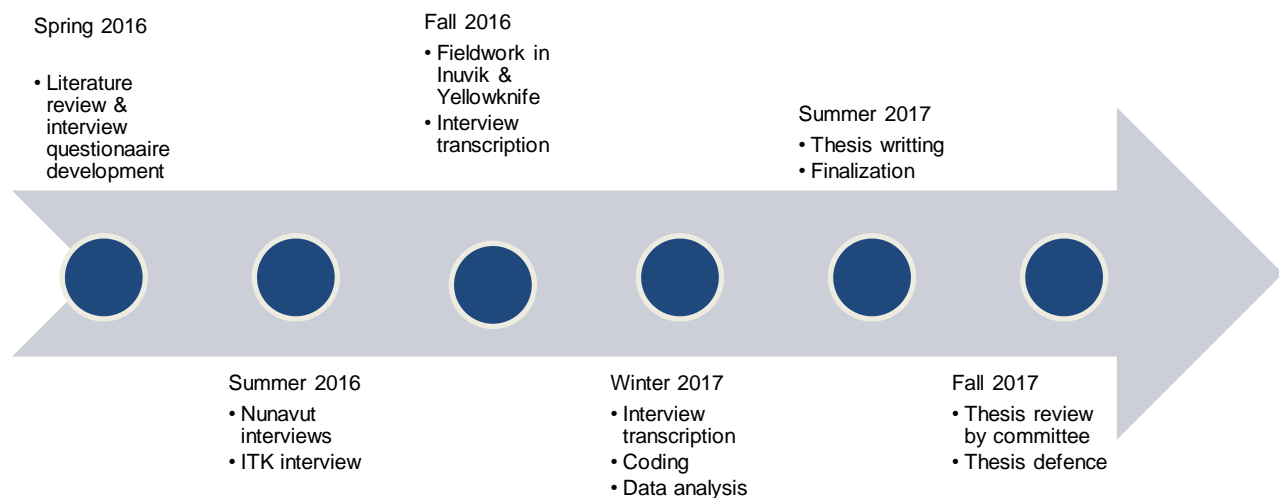


Figure 3 Timeline of significant events and project milestones

3.2 Methods

3.2.1 Data Collection

Data collection comprised of three sets of semi-structured interviews in Nunavut, Inuvik, and Yellowknife. As self-governing Inuit regions with small populations in remote communities who rely on a mix of country and market food, there are significant similarities between the ISR and Nunavut, the latter which has already implemented a regional food security strategy and action plan. As such, the first sets of interviews in Nunavut focused on developing a base sense of the food security governance in a

region that has already developed and implemented a collaborative food security strategy. The interviews in Inuvik aimed to better understand the decision-making structure in the ISR related to food policies / programs, as well as which organizations (and people) would need to be involved in planning, developing, and implementing a regional food security strategy. The interviews in Inuvik also sought to identify barriers and problems in the current way food policy decisions are made in the region (e.g., accountability, competing priorities, top-down decision-making, etc.), and how the current governance structure can be improved to address food security more effectively. The interviews in Yellowknife addressed similar themes as the ISR, but also sought to find ways to connect a regional food security strategy with territorial-level priorities and leveraging existing resources to facilitate this process (see Annex A, B, and C for interview guides).

A qualitative approach was selected because this research was both descriptive (what is the current food security landscape?) and epistemological (what governance barriers impact food policy decisions?) in nature, and the use of open-ended interviews allowed to document the interviewees' experience. Similarly, this approach facilitated a discussion, and allowed participants to introduce new ideas and inspire new questions throughout the process, which might have been missed otherwise. Consistent with practices in grounded theory research, the question guide evolved over the course of my interviews as some questions became more relevant than other, the sequence of questions needed to be changed, and/or new follow-up questions needed to be developed to better answer the research questions (Valentine, 2005). Since the Nunavut interviews were conducted first, observations from participants' responses

were incorporated to refine the interview guide for Inuvik and Yellowknife respectively. Semi-structured interviews are also meant to be flexible in order to deal with the needs of participants, such as re-wording of questions, and providing further clarification (Valentine, 2005).

A snowball sampling approach was used to recruit participants to arrange 1-hour interviews by phone or in-person. In winter 2016, I participated in Inuit Tapiriit Kanatami's annual meeting of the National Inuit Food Security Working Group. The working group provides a platform to discuss pan-Inuit food security priorities and representatives from each of the Inuit regions were present. This meeting allowed to gain a base sense of potential participants from each of the Inuit regions. Our research partner from the IRC is also a member of the working group, and he also able to introduce me to his regional counterparts and inform them of our study. Once ethics approval was secured from the University of Ottawa, the first sets of interviews in Nunavut were conducted from July to October 2016 by phone. Participants were selected on the basis of having played a part in the development and/or implementation of the Nunavut Food Security Strategy and Action Plan.

Our research team also spent twelve days (November 2016) in Inuvik and Yellowknife to conduct field work and in-person interviews. The research team relied on its existing affiliation with the IRC to identify a preliminary list of potential participants that could be recruited who had a stake in food security in the region. We were also accompanied by a Ph.D. student who had conducted food security related research in the region and had a network of people we could also draw on. Some participants put us in contact with other individuals we should reach out to. The research team relied on its professional

network to identify participants in Yellowknife, including GNWT officials, and non-for-profit organizations.

3.2.2 Conducting Interviews

In order to conduct an extensive interview, rapport and trust must be created with the interviewee. For this research, this was largely accomplished through our research team's affiliation and partnership with IRC. As a settled land claim area, the ISR is a bounded region where the land claim organization has significant control over decision-making and influence over the regional research agenda. As such, the research foci, objectives, and methods are aligned with Inuvialuit priorities. Our first day in Inuvik was spent acquainting ourselves to the town through passive observation and coordinating fieldwork with our research partner. Passive observation is a way to build rapport with people and to learn more about the community in a non-intrusive manner (Bernard, 2006). Our research partner at IRC was the first participant interviewed to ensure that questions were relevant and culturally-appropriate. Before each interview, the purpose of the research was outlined, and participants were required to sign consent forms giving us permission to use their responses for this research. Participants were also given the opportunity to remain anonymous and notified that the research results would be available to them. Interviews were recorded, transcribed, and participants were given a copy of transcriptions to ensure accuracy.

Preparing for interviews includes selecting an appropriate location. Valentine (2005) argues that location can have an impact on the level of comfort of respondents, and thus result in better answers. Locations were selected based on the participants' preference. Interviews were sometimes conducted in cafés, but more commonly they

were conducted in the participant’s workplace, in a boardroom or behind closed office doors. During several interviews in Inuvik, I was accompanied by Dr. Sonia Wesche (thesis supervisor) and her infant. The infant’s presence made us approachable to some of the locals, and this often appeared to make participants and community members feel more comfortable and resulted in a more relaxed, informal conversation. Dr. Wesche was also able to jump in and ask follow-up questions that I might have neglected to ask otherwise. This allowed for a more dynamic conversation, and gave me a brief respite to think of other pertinent questions to ask participants. A total of 42 people were reached out to, and 18 interviews were conducted from June 2016 to February 2017: four in Nunavut, six in Yellowknife / GNWT, seven in Inuvik, and one in Ottawa (Table 1).

Table 1 Number of participants and stakeholders interviewed

Interview group	Number of participants	Interview coding	Stakeholders interviewed
Nunavut	4	NU1, NU2, NU3, NU4	Government of Nunavut - Health & Social Services - Family Service Nunavut Tunngavik Inc.
Yellowknife / GNWT	6	YK1, YK2, YK3, YK4, YK5, YK6	Government of Northwest Territories - Environment & Natural Resources - Industry, Tourism, & Investment - Health & Social Services Ecology North
ISR	7	IK1, IK2, IK3, IK4, IK5, IK6, IK7	Inuvialuit Regional Corporation Inuvialuit Game Council Joint Secretariat Inuvik Regional Hospital Inuvik Community Greenhouse
National	1	NT1	Inuit Tapiriit Kanatami

3.2.3 Data Analysis

All interviews were audio-recorded in the instance where participants gave their consent and subsequently transcribed in a Word document. Of the 18 participants, I transcribed eight of the interviews and ten were sent to a third-party to allow more time to dedicate to analysing the data. After the transcripts were reviewed, there was still a considerable amount of editing to be completed before the data was analyzed. The coding process was undertaken using Dedoose software for analysing qualitative mixed methods research. The codes provided a conceptual framework that helped organize, understand, and communicate the findings of the research (Cope, 2010). Root codes were used to sort out some of the major themes of the research to help answer the research objectives. A series of child codes were then identified for each root code that progressed to more analytical labels that connected to the theoretical underpinnings of the research as well as emerging themes that would help to answer the research questions. Once the first batch of codes was identified, I began to excerpt my interview transcripts. Excerpting is the process of searching resources for content that informs your research questions by tagging codes that corresponds to the qualitative meaning that you find in your interviews. Coding, excerpting, and organizing data is a non-linear process. As such, the data was reorganized as new codes, themes, and information emerged (Hesse-Biber & Leavy, 2011; Polgar & Thomas, 2008). A built-in function in Dedoose was used to analyse and draw preliminary results from the data. Participants' answers were then triangulated with each other and with the literature to develop the following results chapter.

3.2.4 Researcher's Background

In qualitative research, identities shaped by both researcher and participants can impact the research process (Bourke, 2014). "Within positionality theory, it is acknowledged that people have overlapping identities. Thus, people make meaning from various aspects of their identity" (Kezar, 2002, p.96). A common practice in qualitative research is to acknowledge one's own positionality so that readers can better understand who is behind the work. In doing so, I choose to share herein a brief statement about myself, and some of the key experiences that I believe are relevant to this research:

I am a graduate student from the University of Ottawa's Department of Geography, Environment, and Geomatics. I am a non-Aboriginal person of European descent, French Canadian, and University educated. I have lived in Ottawa all my life and I have enjoyed the convenience of living a middle-class lifestyle. Having access to sufficient, safe, and nutritious foods has never been an issue.

I currently work for the federal government, in Indigenous and Northern Affairs Canada's Climate Change and Clean Energy Directorate. We provide funding to Indigenous and northern communities through climate change programs to address both short-term and long-term climate change adaptation related issues. I wanted to focus my research on food security as it is increasingly becoming an area of concern for Indigenous and northern communities across Canada.

Working in program implementation and delivery, I often find myself thinking of how we can improve the way we make decisions for the betterment of communities. I credit that desire in wanting to focus on governance issues and improve how food policy decisions are made to address food security more effectively on a regional scale.

Disclaimer: This research is not affiliated in anyway with my professional responsibilities and is being conducted to meet the academic requirements of my degree.

3.2.5 Procedural Ethics

This research adhered to the principles of the '4Rs' of Indigenous research: respect, relevance, reciprocity and responsibility (Kirkness & Barnhardt, 2011). The following outlines how I applied the 4 Rs throughout my research (adapted from Organ, 2012):

1. *Respect*: I took the time to learn more about past participatory projects and IRC's research agenda on food security prior to and during my fieldwork, and throughout the study.
2. *Relevance*: I took the time throughout the research to understand how this project can help address food security on a regional scale, and inform the development of an ISR regional food security strategy and action plan that Indigenous and remote communities in Canada can build and adapt from. This work can also ensure that future food security government programs are aligned with community needs and priorities.
3. *Reciprocity*: Ongoing communication with research partners influenced the research objectives based on IRC's interests in this project. Results from this research have produced a better understanding of the existing governance structure, including challenges and opportunities moving forward.
4. *Responsibility*: Throughout the research process, I strived to conduct work that accurately reflects participants' perspectives.

In addition to the 4 Rs of Indigenous research, this project has been reviewed by, and received ethics clearance through a University of Ottawa Research Ethics Board (see appendices D, E and F for consent forms). An Aurora Research Institute scientific research license was also secured for the duration of this project.

Chapter 4: Results

The current literature emphasizes what food security governance should look like, instead of how food related decision-making is functioning at present (Candel, 2014). A key part of this research was to understand how food-related decisions are being made by identifying opportunities and challenges for regional food security governance in the ISR, as described and experienced by the study participants. As self-governing Inuit regions with small populations in remote communities who rely on a mix of country and market food, there are significant similarities between the ISR and Nunavut. The latter has already undergone a collaborative governance process to address food security on a regional scale. Learning from Nunavut's process offers important insight on the nature of holistic food security strategies that the ISR can learn and adapt from.

This results section has two components. Section 4.1 first provides a contextual overview of the NFSS and Action Plan, followed by results of interviews conducted with participants who were involved in the development and implementation of the Strategy and Action Plan. The findings are organized by the following challenges and lessons learned: high rates of employee turnover, coordinating work with member organizations, the need of establishing clear lines of accountability to achieve desired outcomes, and the importance of securing sufficient and sustained financial resources and organisational capacity to address food (in)security in a meaningful way.

Section 4.2 describes the current state of food security governance in the ISR, including the structures, initiatives, and organizations involved in the region, within the broader territorial context. The first set of interviews in Inuvik focused on identifying local/regional governance challenges. The second set of interviews in Yellowknife

discussed territorial-level themes that emerged to inform our understanding of challenges and opportunities for food security governance in the region. These results derive from semi-structured interviews with a range of participants from the territorial government, land claim organizations, and non-for-profit organizations based in Inuvik and Yellowknife. They are organized by the following themes: lack of human and organizational capacity, limited financial resources, top-down government decision-making, and absence of strategic a coordinated vision, and the opportunity to engage in the development of a territorial-scale country food strategy.

4.1 Nunavut Food Security Strategy and Action Plan

4.1.1 Context

The Nunavut Food Security Coalition (henceforth the Coalition), a partnership of Inuit organizations and the Government of Nunavut, initiated a collaborative governance process to address food (in)security at a territorial scale. Collaborative governance refers to “the processes and structures of public and policy decision-making and management that engages people constructively across the boundaries of public agencies, level of government, and/or the public, private, and civic spheres in order to carry out a public purpose that could not otherwise be accomplished (Emerson et al., 2011, p.2)”. While food insecurity has long been viewed as an important health concern by the Government of Nunavut, the issue emerged as an important priority for the territorial government due to the convergence of a number of milestone events (Figure 4). These events include: the release of sobering food insecurity data and statistics from the 2007-2008 Inuit Health Survey, the unification of political will at the territorial and federal level to address food (in)security in Nunavut in a meaningful way, mobilization of

civil society, and securing adequate funding from Health Canada and the Public Health Agency of Canada to address the issue (Wakegijig et al., 2014).

The priority areas for the Strategy were informed by an extensive consultation process in 25 Nunavut communities. To better understand these themes, thematic discussion took place in 2012. These discussions engaged a broad range of stakeholders to discuss how food security could be addressed in a sustained manner. Insights gained in these discussions culminated at the Nunavut Food Security Symposium, which was held in Iqaluit Nunavut in 2014. The Symposium brought together 135 individuals from government departments, non-for-profit organizations, Inuit associations, retailers, Hunter and Trappers Organizations, and academic institutions (Wakegijig et al., 2014).

In 2014, the Coalition, comprised of seven Government of Nunavut departments and four Inuit organizations, released the NFSS and Action Plan (henceforth the Strategy and Action Plan), with a vision that “all Nunavummiut will have access to an adequate supply of safe, culturally preferable, affordable, nutritious food, through a food system that promotes Inuit societal values, self-reliance, and environmental sustainability” (NFSC, 2014, p.4). The Strategy’s six themes are: (1) country food, (2) store bought food, (3) local food production, (4) life skills, (5) programs and community initiatives, and (6) policy and legislation (Figure 5). For each theme, the Action Plan includes a mission, rationale, key partners, and defines a total of 67 actions and 26 outcomes to achieve their collective vision for food security in the region (NSFS, 2014).

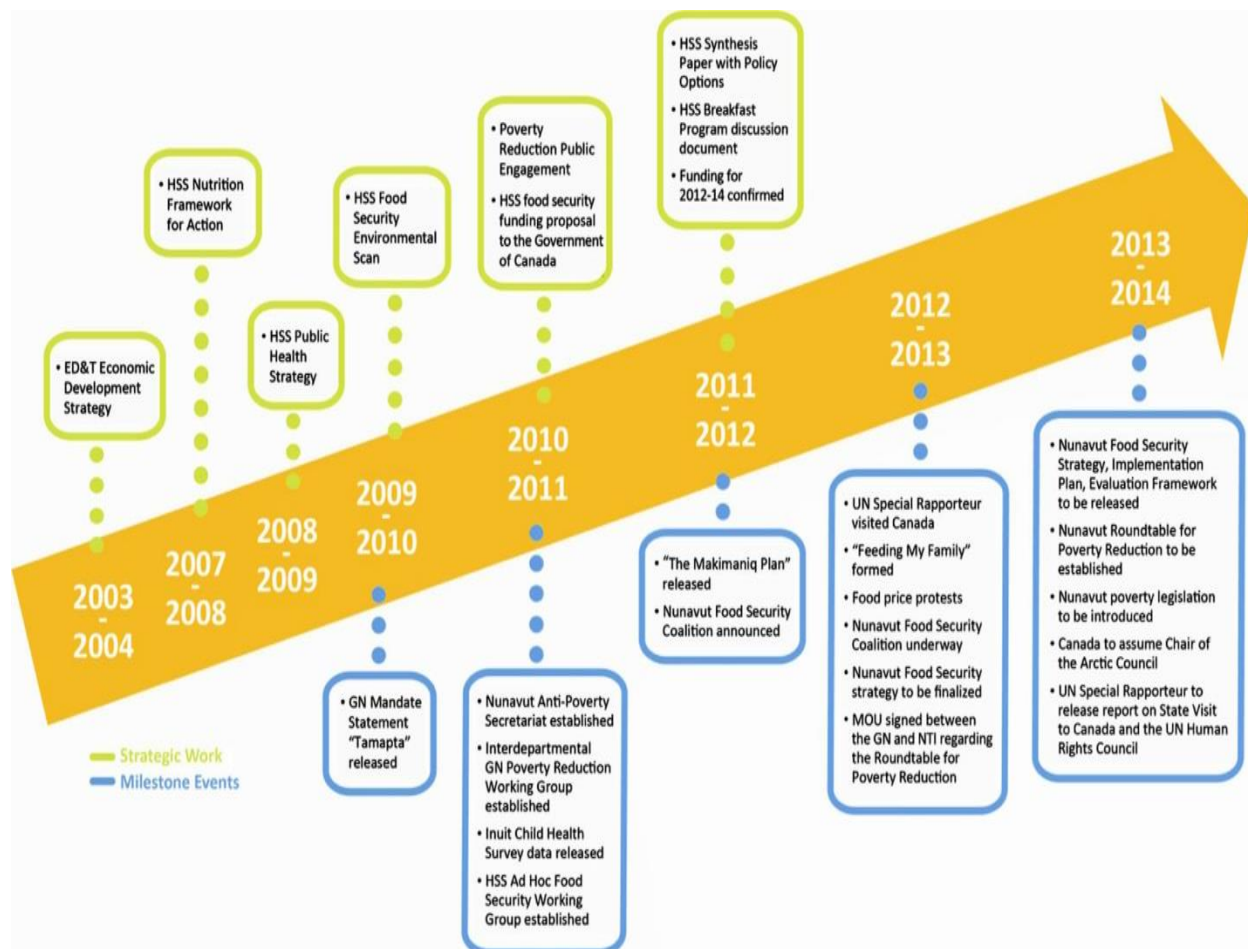


Figure 4 Timeline of events that led to the Food Security Strategy and Action Plan (from Wakegijig et al., 2014)

As a roundtable task group, the Coalition receives support from the Nunavut Roundtable on Poverty Reduction, which is co-chaired by the Government of Nunavut's Department of Family Services and Nunavut Tunngavik Incorporated's (NTI: Nunavut land claim organization) Social and Cultural Development Department (NFSC, 2014). Funding to strike the Coalition, develop the Strategy and Action Plan, and evaluate its effectiveness is an outcome of the Northern Wellness Agreement. Health Canada and

Public Health Agency of Canada developed the Agreement with the Government of Nunavut that combined \$83.9 million of funding (2012-2017) to support community-based health promotion and disease intervention programs. Funding secured from the contribution agreement also included hiring one full-time Territorial Food Security Coordinator to support the Coalition effort's to develop and implement the Strategy and Action Plan.

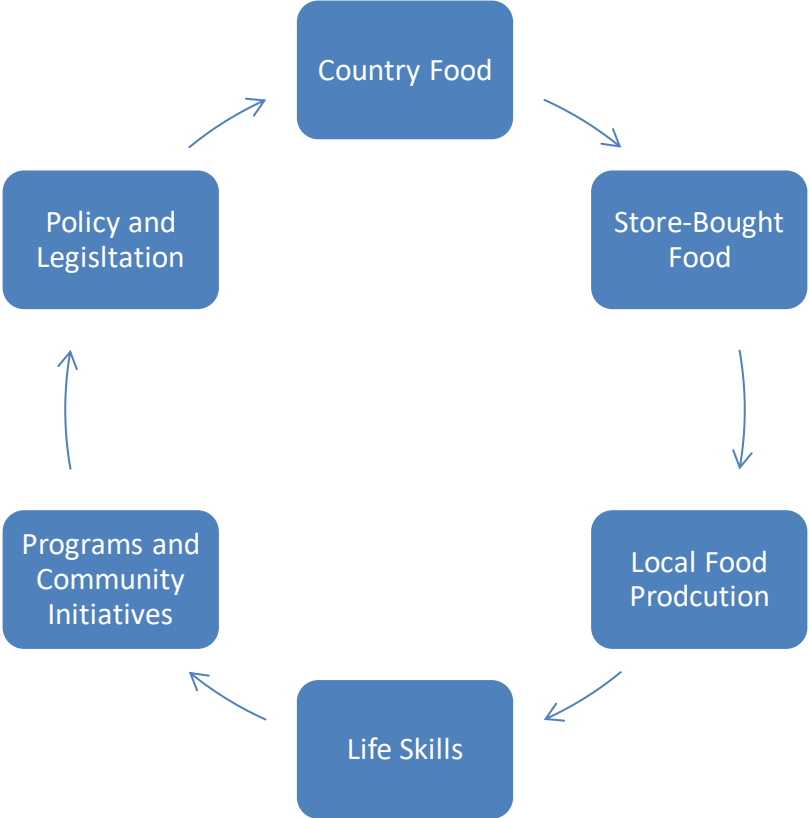


Figure 5 Six themes of the Nunavut Food Security Strategy and Action Plan (adapted from NFSC, 2014)

4.1.2 Nunavut Interview Results

This section describes challenges and lessons learned that emerged through interviews with participants who were implicated in the NFSS development and implementation process. Findings reveal how employee turnover hindered the ability of the Coalition to deliver on committed actions. They further indicate how Coalition engagement with its member organizations proved to be challenging due to conflicting agendas. Furthermore, participants raised the issue that the Action Plan failed to build in meaningful indicators to monitor and evaluate program interventions. A number of lessons learned were also identified by participants. They include the importance of accountability in terms of establishing clear roles and responsibilities for the Strategy and Action Plan. Finally, participants stressed the need to secure adequate resources to support food security interventions in a sustained manner and the importance of strong organizational capacity that can provide expertise and management to the file (see Table 2). These themes are discussed below.

Table 2 Key themes and points from Nunavut interviews

Key Themes	Key Points
Employee Turnover	<ul style="list-style-type: none">- Employee turnover from senior government officials to working level employees made it challenging for the Coalition to achieve desired outcomes
Coordinating work with member organizations	<ul style="list-style-type: none">- It was challenging for the Coalition to reach consensus from member organization on certain issues- The working group model proved to be ineffective due to challenges in coordinating schedules and lack of interest from working group members
Program evaluation	<ul style="list-style-type: none">- Program performance measurement is needed to monitor and evaluate desired outcomes
Accountability and legitimacy	<ul style="list-style-type: none">- It is important to clearly identify roles and responsibilities to avoid confusion and overlap of mandates
Resources and organizational capacity	<ul style="list-style-type: none">- Adequate human and financial resources are needed to address food (in)security in a coordinated and sustained manner- The Coalition had strong organizational capacity that brought strategic vision, leadership, direction, expertise, and management to the file

4.1.2.1 Challenge #1 – Employee Turnover

Participants unanimously identified employee turnover as one of the most significant challenges when developing and implementing the Strategy and Action Plan. Since the inception of the Coalition five years ago, only one member of the original core group is still working on the file. Both co-chairs of the Coalition as well as the Territorial Food Security Coordinator left their positions within the same year. With much of original strategic vision and corporate knowledge lost, it made it challenging for the Coalition and new members to deliver on actions and outcomes set out in the Action Plan. Illness,

full workloads, and long government staffing processes exacerbated the issue. One active employee member on the file noted:

“We just had one of our most recent co-chairs leave her position, so somebody new always steps into that role. It’s kind of a frustrating process because it hinders progress and I would like to think that we have made some strides here around food security issues in Nunavut. One of the biggest challenges we had to face was constant turnover of people.” (NU2)

Likewise, NU1 noted that momentum on achieving desired outcomes under the Action Plan has been stalled over the past year due to high turnover of employee at all levels from community programs to senior government roles. Similar concerns were also voiced by another participant:

“I think that one of the biggest challenges, even if it’s characteristic of the entire North and in Nunavut in particular is the whole turnover issue. You can only get enough momentum by the people who are familiar with your topic and the territory in general. The corporate knowledge of the territory is only as long as the person in the room. Every month we would have a Coalition meeting, we would have to update the distribution list because someone had moved on, or left the territory. That was a huge challenge in terms of keeping momentum going.” (NU3)

4.1.2.2 Challenge #2 – Coordinating Work with Member Organizations

Coordinating work among Coalition member organizations proved to be challenging. The Coalition is made up of not only Nunavut Tunngavik Inc., but also the Government of Nunavut and other Nunavut-based groups that have a stake in food security (including commercial retailers). Any of these groups can apply to become a member of the Coalition. Coalition members are responsible to attend meetings and contribute ideas, meet objectives under the Action Plan, as well as participate in the decision-making process. The Coalition strived for unanimous consent among members when

making decisions. Some participants expressed that it was difficult to come to a consensus on some issues, and some retailer groups were perceived to have delayed the decision-making process. One participant noted:

“This is my personal opinion, but I think one mistake that we made was allowing retailers to have membership to the NFSC [...] they have been a thorn at our side. While there is a great benefit of having them at the table, it should be more in an ad hoc way where they don’t get a vote at the end of the day.” (NU2) Another respondent said:

“One of the things that I know has been a challenge for the NFSS is all the different perspectives at the table. Their Coalition is made up of not only the land claim organization, but also the Government of Nunavut and regional players. They have a lot of people that they need to filter their voices into a cohesive strategy. I know that those organizations and people are coming from very different perspectives.” (NU1)

The Coalition also obtained commitments from organizations responsible for specific deliverables under the Action Plan; however, due to employee turnover, a number of actions were not completed. The six themes of the Strategy were selected by the Coalition and subsequently validated in 2013 during a Symposium in Iqaluit. Panel discussions, presentations, and working sessions allowed participants to learn more about food security, and identify knowledge gaps in order to make sound program and policy decisions (Wakegijig et al., 2014). It was expressed that the *local food production* theme had less traction, and was cited as more exploratory and less in demand than other themes such as country food and market food. One participant contributed the following:

“Local food production is something that is still a bit of a lofty dream for us. There are little initiatives that are popping up in various communities in Nunavut, but

again, it's not something that we have looked at maybe as much as things like country food or store bought food which seems to be at the forefront of everybody's mind. There has been a lot of headway in some areas, but others are suffering a little bit. Had that not happened [employee turnover], we would probably be on target, but those challenges have delayed us a bit." (NU2)

The Coalition established sub-working groups to explore issues that could not be formalized on time before the Action Plan was published. For example, there was a lot of interest around increasing funding for breakfast programs and harvester support programs, but no tangible actions had been committed in time to formalize in the Strategy and Action Plan. The working groups were established to study possible programming for breakfast and harvester support programs in the next iteration of the Action Plan, but challenges in coordinating schedules and lack of interest from Coalition member organizations resulted in the working group model being ineffective:

"The idea of the working groups was that Coalition members would lead them so not always the same people would be leading everything. We wanted to distribute the responsibilities for that, but nobody picked it up (NU3)".

4.1.2.3 Challenge #3 – Program Evaluation

Another challenge identified by participants was the lack of an evaluation framework to measure the Strategy's outcomes and impacts. This is not uncharacteristic of other integrated food security strategies (Candel, 2017). For example, in the South African context, the government failed to develop a proper performance measurement framework to evaluate the outcomes of their food security interventions (Drimie & Ruysenaar, 2010). Program monitoring and evaluation are required to inform policy makers and the public on the effectiveness of actions and areas for improvement (van

der Veen & Gebrehiwot, 2011). When asked about how the Coalition evaluated the overall success of the Strategy, NU4 mentioned that the evaluation would identify the strengths, weaknesses, challenges, as well as look into the governance structure of membership. When asked NU4 if they would consider the Strategy and Action Plan a success if the majority of the outcomes were achieved, NU4 indicated that it would be one measure of success. A broader assessment was initiated to determine if the actions and objectives in the Action Plan were comprehensive enough, and if they were the most relevant ones for addressing food security in the territory. This assessment is contracted through a request for proposal process, to be undertaken in 2017-18.

4.1.2.4 Lesson Learned #1 – Accountability and Legitimacy

Respondents stressed the importance of having a clear understanding of who is accountable and responsible for the Strategy. In other words, there needs to be a political champion willing to take ownership of the file. According to Emerson et al., (2011), the presence of leadership and ownership is a necessary precursor for effective collaborative governance arrangements. This was an issue the Coalition initially struggled with. For example, the Government of Nunavut's Department of Family Services was responsible for the poverty reduction file and yet, it was the Department of Health that originally received the funding from Health Canada and Public Health Agency of Canada. In April 2016, the file was transferred to Family Services in an attempt to line up responsibilities and budget management authorities within the same department.

“File ownership is hugely important! You want that whoever is involved in the development [of a food security strategy] can see themselves in it and it's not someone else's baby. That is something that we struggled with a lot. We did

have pretty clear direction; we knew that it [the Coalition] was going to be co-chaired by the Government of Nunavut and NTI. Every time there is a Deputy Minister shuffle, you are re-explaining who is responsible for what (NU3)”.

While not detrimental to the overall delivery of the Coalition’s mandate, it did create internal confusion about roles and responsibilities. There was also community confusion about the Strategy and its goals:

“We have gotten some criticism from a community [...] people question what this Strategy is actually going to do. It’s just another document; it’s going to sit on someone’s shelf” (NU2).

NU3 mentioned the importance of validating government commitments in formal documents. Having a set of objectives, actions, outcomes, and expected timeframes adds a layer of accountability and legitimacy. NU3 noted:

“As soon as it’s in there, it’s sort of a government commitment. When there was wavering leadership or change in employee, we had to do it because it was a commitment. Getting it in a document like that gives it a lot more power”.

As indicated above, the Strategy was meant to be a long-standing foundational map to guide food security initiatives in Nunavut, whereas the Action Plan was expected to be renewed periodically based on political will and budgets. The Coalition made a mindful decision to include the Action Plan within the Strategy following criticism of the Government of Nunavut and NTI for releasing their Suicide Prevention Strategy without tangible actions to address suicide rates. NU3 reflected on the importance of publishing annual progress reports to demonstrate greater accountability in desired outcomes:

“It is important to have foundational documents as road maps for moving forward and keeping track of what you are doing and being accountable. Part of annual

report was more narrative in terms of the big projects we were able to accomplish [in the fiscal year]. We also wanted to list all the actions that were supposed to take place in that year and provide an update on them. And again, we had pretty promising results so it was nice to have that as your work plan and strive for those targets”

4.1.2.5 Lesson Learned #2 – Resources and Organizational Capacity

Throughout the literature, governance is considered both a potential driver of food (in)security and a solution (Candal, 2014). For example, in a food security assessment in Malawi, Sahley et al., (2005) note that the Malawian government’s limited capacity to implement its own policies significantly limited the country’s ability to meet its development goals. Similarly, Pereira & Ruysenaar (2012) argue that governments fail to act because of poor decision-making, weak institutions, limited resources, and limited coordination.

One of the success factors of the Strategy and Action Plan was having a strong organizational capacity within the Poverty Reduction Secretariat that could provide a strategic vision, leadership, direction, expertise, and management to the file. One participant confirmed the following:

“We found success in the early years since we had steady co-chairmanship and leadership between the two co-chairs and the Territorial Food Security Coordinator. [...] Having that consistent leadership and administration of the Coalition served the Strategy well” (NU1).

The two co-chairs of the Secretariat have notoriously disagreed on a number of issues in the past; however, both groups were able to collaborate and work together on this particular file. As one participant described it, this stemmed from the understanding that food security is not just a government problem; it’s “not only one player that’s going to

fix it, we all have a role to play from Inuit organizations, to government, and commercial retailers” (NU2). Organizational interdependence – when organizations are unable to complete something on their own and have to pool resources – is a recognized precursor for collaborative governance (Emerson et al., 2011). N2 also alluded to the fact that the Secretariat benefited from five individuals who were passionate about food security; however, some of that initial drive was lost when new members joined the group. Similarly, the presence of a full-time position dedicated to the file proved essential for the delivery of the Strategy and Action Plan. When asked if it was important to have one specific position devoted to food security, one respondent unequivocally stated:

“I 100 percent agree! If you don’t have that position, it will not go anywhere. It’s a matter of having someone responsible for it. We had the Secretariat and we would have regular meetings to touch base and see how things are going, and then that would give me direction on what to do. If it is on the side of someone’s desk, it just doesn’t work.” (NU3)

Funding for the Strategy and Action Plan ended in March 2017. In terms of next steps, the Department of Family Services is working to renew the Action Plan, and is the process of developing *Makimaniq 2.0*, the second iteration of the territorial government’s anti-poverty strategy. *Makimaniq 2.0* reiterates the Government of Nunavut’s commitment to address food security on a territorial-scale, including seeking sustainable funding to support future Coalition activities beyond 2017 (Government of Nunavut, 2017)

This section has examined challenges and lessons learned from the development and implementation process of the NFSS and Action Plan. In terms of challenges, employee turnover from senior government roles to community-based organizations stalled some outcomes set out in the Action Plan. Coordinating work with member organization due to competing priorities, and lack of participation in working groups also proved to be challenging. Finally, an evaluation framework was not developed to measure the Strategy's success in improving food (in)security in Nunavut. In terms of lessons learned, respondents expressed the need to identify clear roles and responsibilities to coordinate activities in an efficient and effective manner. They also identified the importance of securing adequate resources and having strong institutional structures to address food (in)security in a meaningful way. The following section will discuss the state of food security governance in the ISR, and governance challenges that emerged from interviews in Yellowknife and Inuvik.

4.2 The State of Food Security Governance in the ISR

While the broader food security literature has given recent attention to the concept of 'food security governance', the ISR has seen little focus on understanding governance structures and needs on a regional scale. This section describes the current governance landscape in the ISR, including the structures, organizations, and initiatives involved in the region, within the broader territorial context. Two sets of semi-structured interviews were conducted at different scales of enquiry to identify what is transpiring on the ground (ISR interviews), as well as process-based issues and opportunities on a territorial-scale that can inform local and regional decision-making (Yellowknife interviews).

4.2.1 Context

The ISR is a Land Claim Settlement region covering approximately 906,430 square kilometers in the Mackenzie Delta, Beaufort Sea, and Amundsen area. It is located in the northern corner of the Northwest Territories and the northernmost portion of Yukon (Figure 6). The total regional population of 5,800 is predominantly Inuvialuit, who are Inuit living in the western Canadian Arctic. The region is governed by the IRC, a land claim organization that was formed at the signing of the Inuvialuit Final Agreement (IFA) in 1984 mandated to improve the social, economic, and cultural well-being of Inuvialuit (IRC, 2007). The IRC is controlled by Inuvialuit beneficiaries and serves six communities: Aklavik (approx. pop. 668) and Inuvik (approx. pop. 3,265) located in the Mackenzie Delta; Tuktoyaktuk (approx. pop. 965) and Paulatuk (approx. pop. 321) on the mainland coast; Ulukhaktok (approx. pop. 415) on Victoria Island; and Sachs Harbour (approx. pop. 132 on Banks Island (GNWT Bureau of Statistics, 2016)). The Inuvialuit Game Council (IGC) was also formed at the signing of the IFA. The IGC represents collective Inuvialuit interests in all matters pertaining to harvesting rights, renewable resource management, and wildlife conservation (Joint Secretariat, n.d.). The IGC is also supported by the Joint Secretariat, which was established in 1986 to provide technical expertise to the IGC and co-management boards (Joint Secretariat, n.d.). While food security is not directly part of IGC's mandate, the organization does make decisions with regards to harvesting quotas that may have an impact on wildlife availability.

With the exception of Inuvik as a regional hub for commercial, government, and industrial activity, the economies of the region mainly rely on subsistence hunting, sporadic resource exploitation, and public administration. Each ISR community has a hamlet/town office, a Community Corporation, and a Hunters and Trappers Committee which collectively administer funding for community programs. In terms of infrastructure, Inuvik is linked to Canada's highway system through an all-season road. There are also two winter roads connecting Inuvik to Tuktoyaktuk and Aklavik respectively that operates from December to May depending on winter conditions. There is no road access to Ulukhaktok, Paulatuk, or Sachs Harbour. These communities rely in part on the sealift (marine shipping) to transport bulk items during the ice-free season. Air transportation operates year-round in the ISR, and is also an important link to the rest of the Northwest Territories and Canada for people and cargo (GNWT, 2016a). Other public and private infrastructure includes public schools, churches, community centers, and grocery/corner stores (one or two stores per community).

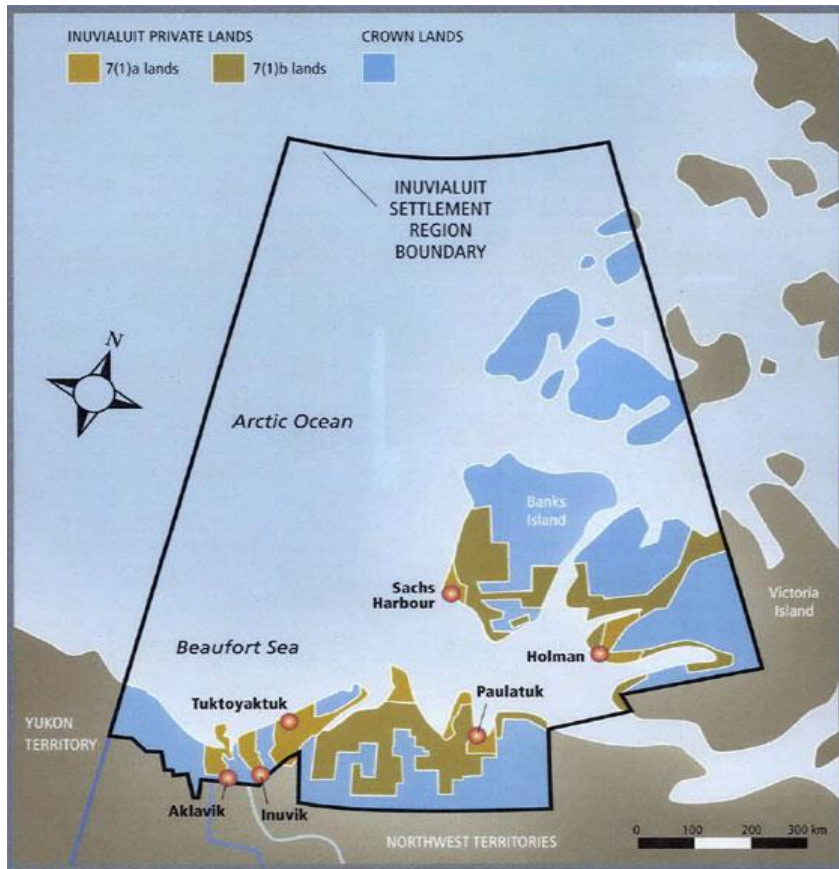


Figure 6 Inuvialuit Settlement Region, Northwest Territories (AANDC, 2005)

There are a wide range of programs operational in the ISR to address food (in)security. Kenny et al., (In press) inventoried 36 distinct food security programs in the ISR (Table 3) administered largely by government entities ranging from seven themes identified by the CCA (2014): (1) affordability and availability of healthy foods, (2) health and education, (3) community wellness and intergenerational knowledge sharing, (4) harvester support and sustainable wildlife management, (5) poverty reduction and community development, (6) Infrastructure, transportation and local food production, (7) and youth engagement.

Table 3 List of food security programs operating in the ISR, organized by themes from the CCA (2014) (from Kenny et al., In press)

INITIATIVE	ADMINISTRATION	LOCATION	DESCRIPTION	TARGET POPULATION	FOOD SECURITY PILLAR
Theme 1: Increasing the affordability and availability of healthful foods					
1. Nutrition North Canada: Food Subsidy	Indigenous and Northern Affairs Canada	Five remote ISR communities*	Subsidized transport of perishable nutritious food and commercially-produced country food to isolated northern communities	All residents	Availability, Access
2. Arctic Food Bank	Midnight Sun Mosque	Inuvik	Provides food items	People in need	Access
3. Inuvik Food Bank	Inuvik Food Bank	Inuvik	Provides food items	People in need	Access
4. Food Bank	Salvation Army	Paulatuk	Provides food items	People in need	Access
5. Food Bank	Hamlet of Sachs Harbour	Sachs Harbour	Provides food items	People in need	Access
6. Food Bank	Our Lady of Grace Church	Tuktoyaktuk	Provides food items	People in need	Access
7. Food Bank	Hamlet of Ulukhaktok	Ulukhaktok	Provides food items	People in need	Access
8. Soup Kitchen	Ingamo Hall Friendship Centre	Inuvik	Provides hot meals	People who are homeless, at risk of becoming homeless, undergoing emergency or crisis situation	Access
9. Meal Program	Inuvik Homeless Shelter	Inuvik	Provides hot meals	People who are homeless	Access
10. Meal Program	Our Lady of Victory Roman Catholic Church	Inuvik	Provides hot meals	People in need	Access
Theme 2: Health and Education					
11. Nutrition North Canada: Nutrition Education	Indigenous and Northern Affairs Canada	Five remote ISR communities*	Cooking circles and food demonstrations carried out by a hired local community member to increase knowledge of healthy eating and develop healthful food preparation skills	Adults	Utilization

12. Pre-Natal Nutrition Program: First Nation and Inuit Component	Public Health Agency of Canada	All six ISR communities	Provides support for various programs including maternal nourishment and food provision (cooking, snacks, food coupons/vouchers and baskets), nutritional education and breastfeeding	Pregnant women, mothers of infants, and infants up to 12 months; in particular those identified as high risk	Access, Utilization
13. Northern Contaminants Program	Indigenous and Northern Affairs Canada	All six ISR communities [†]	Provides funding for research, monitoring and communication to enhance understanding of the health effects and benefit/risks of country food consumption, and help support informed food choices	All residents	Quality
14. Breakfast for Learning	Breakfast for Learning Canada	All six ISR communities [†]	Helps start and sustain school-based meal and snack programs; grants can be used for food, supplies and equipment, and staff/volunteer support	School-aged children and adolescents	Access, Utilization
15. Food Safety	GNWT: Industry, Tourism and Investment	All six ISR communities [†]	Provides funding and support to evaluate and reduce the risk involved with manufacturing and transporting local food (e.g. personnel training, commercial wildlife harvest, food safety programs)	All residents	Quality
16. Education Programs	Food First Foundation	All NWT communities [†] (Aklavik, Inuvik, Paulatuk, Ulukhaktok) [‡]	Provides funding for school snack and meal programs, including kitchen equipment, cold storage and school gardens	School-aged children and adolescents	Availability, Access, Utilization

17. Drop the Pop	Beaufort Delta Health and Social Services	All NWT communities [†]	School-based educational campaign and funding initiative to support consumption of healthful foods and beverages, and improving nutritional knowledge and skills	Students, families, schools and communities	Access, Utilization
18. Healthy Family Program	Beaufort Delta Health and Social Services	Inuvik	Includes Collective Kitchen, Baby Food and Family Meal programs	Families (prenatal to age 6)	Access, Utilization
Theme 3: Community wellness and intergenerational knowledge sharing					
19. Community Wellness Plans (2013)	Inuvialuit Regional Corporation	All six ISR communities	Assesses how current programs related to health and wellness are faring and provides a roadmap for community-based activities and priorities in support of community health	All residents	Access, Utilization
20. Project Jewel	Inuvialuit Regional Corporation	All six ISR communities	On-the-land after care wellness program	After-care participants (youth and adults)	Access, Utilization
Theme 4: Harvester support and sustainable wildlife management					
21. Local Wildlife Committee Funding	GNWT: Environment and Natural Resources	All six ISR communities	Provides funding to local organizations representing the interests of hunters and trappers	Harvesters	Access
22. Western Harvesters Assistance Program	GNWT: Industry, Tourism and Investment	All six ISR communities [†] (through Indigenous organizations)	Provides funding (one-time contributions) to assist and promote renewable resource harvesting	Harvesters	Access
23. Traditional Harvest Program: Community Harvests	GNWT: Industry, Tourism and Investment	All six ISR communities [†] (through NWT Community and Regional Wildlife Organizations)	Provides funding (up to 60% of eligible costs) to support community hunts/harvests	All residents	Access

24. Inuvialuit Harvesters Assistance Program	Inuvialuit Regional Corporation	All six ISR communities [†]	Provides ongoing funding to Inuvialuit subsistence harvesters	Inuvialuit beneficiaries	Access
25. Community Freezer	Hamlet of Paulatuk, Paulatuk HTC	Paulatuk	Stores and provides country food	Harvesters and people in need	Access
26. Community Ice House	Hamlet of Tuktoyaktuk	Tuktoyaktuk	Stores and provides country food	Harvesters and people in need	Access
Theme 5: Poverty reduction and community economic development					
27. Anti-Poverty Fund	GNWT:	All NWT communities	Provides funding for projects to combat poverty in five of the Territorial Anti-Poverty Strategy Pillars (child and family support; healthy living and reaching potential; safe and affordable housing; sustainable communities; integrated continuum of service)	All residents	Access
28. Territorial Housing Programs (various)	GNWT: Housing Corporation	All six ISR communities	Supports home ownership (2 programs), repair and maintenance (5 programs), and public housing	Eligibility based on NWT Residential Tenancies Act	Access
29. Country Food Development and Value-added Processing Initiative: Purpose-Built Country Food Processing Training Facility	Inuvialuit Regional Corporation: ICEDO	All six ISR communities	Provides mobile training facility infrastructure to support efforts toward maximizing economic benefits from and accessibility to nutritious country foods	Adults	Access
30. Country Food Development and Value-added Processing Initiative: Country Food Processing Methods training course	Aurora College with support from Inuvialuit Regional Corporation: ICEDO, Gwich'in Tribal Council and GNWT	All six ISR communities	This course teaches the knowledge and skills required for value-added processing of country food through in-class and hands-on instruction	Adults	Utilization

Theme 6: Innovation in infrastructure, transportation and local food production					
31. Co-operative Association	GNWT: Industry, Tourism and Investment	All six ISR communities	Provides information and support relating to co-operatives, their benefits, and how to initiate them in the NWT; this supports more locally-controlled food retailing	All residents	Availability, Access
32. Northern Food Development Program	GNWT: Industry, Tourism and Investment	All six ISR communities	Provides funding support for local food production (agriculture, fisheries, wildlife harvests, and non-timber forest products)	Producers and harvesters with majority of products directed at commercial markets	Availability
33. Market Development Program	GNWT: Industry, Tourism and Investment	All six ISR communities	Provides marketing support and shipping cost subsidies to increase marketplace competitiveness of the NWT agriculture industry	NWT agriculture industry	Availability
34. Small Scale Foods Program: Community Greenhouses	GNWT: Industry, Tourism and Investment	Five remote ISR communities*	Provides funding and support for the installation and establishment of gardens and greenhouses in remote NWT communities	All interested residents	Availability, Access
35. Inuvik Community Greenhouse	Community Garden Society of Inuvik	Inuvik	Makes greenhouse garden plots (74 full-size plots) available to residents of Inuvik	All interested residents	Availability, Access
Theme 7: Youth engagement					
36. Traditional Harvest Program: Take a Kid Harvesting	GNWT: Industry Tourism and Investment	All six ISR communities [†] (NWT schools and community or regional wildlife organizations)	Provides funding to organize youth on-the-land skills training	School-aged youth	Access, Utilization

Kenny et al., (In press) argue that federal initiatives in the ISR focus largely on securing affordable access to nutritious market foods (e.g. Nutrition North Canada, Canada Prenatal Nutrition Program) and health and education programs, whereas community-based priorities tend to emphasize access to country foods. Furthermore, there are limited mechanisms in place to evaluate the usefulness and effectiveness of these initiatives (Kenny et al., In press). Despite the range of food security programs available in the ISR, they tend to be ad hoc, and no integrated strategies exist; however, there are collaborative initiatives driving regional dialogue in that direction. These will be discussed in the following section.

4.2.2 ISR and Yellowknife Interview Results

This section focusses on examining food security governance themes in the ISR, derived from semi-structured interviews conducted with a range of stakeholders in Yellowknife and Inuvik, including employees of the GNWT, the IRC and non-for-profit organizations. Despite intentions to discuss opportunities for regional-scale food security governance, the interviews tended to focus on governance challenges. The reflections shared by participants reveal how capacity issues regarding human resources at the community and regional level can hinder effective food governance arrangements. This is exacerbated by funding constraints experienced by government programs that aim to alleviate food insecurity in ISR communities. Participants also noted that some government food programs are not aligned with community priorities. Participants also expressed that the government is placing too much emphasis on short-term interventions, and that there is a need to develop long-term food security

strategies to help drive meaningful change. These results stress the importance of proper community engagement in the conceptualization and implementation of programs and policies that are ultimately there to serve communities. GNWT is in the process of developing a country food strategy that will look to engage with stakeholders and build programming from the ground up (see Table 4). These themes are further detailed below.

Table 4 Key themes and points from ISR and Yellowknife interviews

Key themes	Key Points
Human and organizational resources capacity	<ul style="list-style-type: none"> - ISR communities have difficulty accessing government funding due to limited knowledge on how to apply for funding - There is a varying degree of institutional capacity among organizations in the ISR to address food (in)security
Budget constraints	<ul style="list-style-type: none"> - Government cuts in food programming can hamper food security outcomes - Adequate funding is necessary to address food (in)security in a sustained manner
Top-down government decision-making	<ul style="list-style-type: none"> - Proper community input is necessary when conceptualizing food security programs and policies
Absence of strategic vision and coordinated approach	<ul style="list-style-type: none"> - A range of short-term relief and long-term strategies are needed to address food (in)security in Canada's North - A coordinated approach is needed in NWT to guide food security actions and outcomes
Collaborative Country Food Strategy	<ul style="list-style-type: none"> - Collaborative initiatives are driving dialogue towards a Country Food Strategy - The Strategy will engage with a range of stakeholders and will reflect community needs and priorities

4.2.2.1 Challenge #1 – Human and Organizational Resource Capacity

A majority of participants identified limited human and organizational resource capacity as a critical challenge to addressing food (in)security in the ISR. At the local level, it was mentioned that community groups have difficulty accessing government programs due to limited knowledge about how to apply for funding. One government employee acknowledged that this was an issue:

“One of the things on food security in running programs is the capacity of people to apply for the program. In many of our small communities, there is limited capacity [to apply for funding]” (IK7).

For example, under its Support for Entrepreneurs and Economic Development (SEED) Policy, the territorial government provides financial support to help communities expand their economy, including community greenhouses (GNWT, n.d1). In the past, the Economic Development Officer (EDO) from the Department of Industry, Tourism, and Investment (ITI) would travel to the six ISR communities and help them complete their application. Due to budget constraints, the EDO was not able to travel in 2016 and the communities failed to secure SEED funding for their greenhouses since the applications were never submitted. One program administrator indicated:

“People will sit down with me and say okay, I will have that on your desk [the application] by next week [...] but it never happens. Paulatuk does not have a community garden society because the person who said that they will put in \$50 and send the paperwork to Yellowknife never did it. This is a huge issue we are running up against” (IK5).

Limited availability of skills to fill certain jobs is also problematic. For instance, the Inuvik Community Greenhouse Society hires a summer coordinator to help operate the greenhouse during peak season. Despite intentions to the contrary, it was forced to hire

externally due to a limited pool of qualified candidates in Inuvik and rigid government programming. Since funding for the summer coordinator is supported by Government of Canada's student internship programs, students are required to be enrolled in a post-secondary institution in order to qualify.

At the regional level, human resource capacity is also an issue. Two full-time employees play a vital role in managing the affairs of the IGC. Employee interviewed expressed that there is limited resources available to effectively address the scope of work they have to manage. As one participant recalls, a lack of human resources was apparent when working on the environmental impact assessment of the Makenzie Gas Project at the time. Whereas government and industry were able to increase resources dedicated to the project, only one employee was coordinating the work for the Inuvialuit.

Participants in Inuvik also noted the disparity of organizational capacity between the IRC and other organizations in the region. For instance, one Joint Secretariat employee noted that staff retention within IGC was problematic:

"In the ISR, [staff turnover] happens especially for the Hunters and Trappers Committee. It's not that a lot of them have not stayed on long-term, but it's just that they are not funded in a way that keeps good people there. [...] Community Corporations are probably better because IRC has some profits because they are more of a business arm, [whereas] the Hunters and Trappers Committee are more non-for-profit and have limited funding." (IK4).

Organizational capacity within IRC has not been as problematic according to one senior IRC employee:

“The [organizational] framework we are operating under right now is a little bit more solid [than Nunavut]. I think we have a great deal of retention of key positions. [...] There is tremendous amount of capacity spread across the various organizations linked with IRC through the Inuvialuit Final Agreement” (IK3).

4.2.2.2 Challenge #2 – Budget Constraints

The overwhelming majority of participants agreed that sufficient and sustained funding is necessary to address food (in)security in a sustained manner. According to Candel (2014), adequate financial resources are necessary to develop and maintain responsive governance structures. At the national-scale, the National Food Security Working Group convened by ITK is in the process of developing an Inuit Food Security Strategy that will be centered on building awareness to the Canadian public on Inuit food security issues, as well as identify a path forward on how to improve the situation in Canada’s North. One ITK representative noted that the national strategy does not have targeted funding from the federal government and as a result, progress has stalled in recent years and the strategy has not been released yet. The participant indicated that:

“We do have a large portion of the strategy drafted. I would say about 80 percent, so that’s great but ITK does not have direct funding for the strategy. It is difficult for the working group. We try to meet once a month over teleconference for one hour, and we are lucky if we can get an in-person meeting a year and it’s completely dependent on funding. Last year, we were unable to have a meeting in-person and that’s when the bulk of the work gets done on the strategy. [...] we still need to secure a bit of funding to ensure that it is actually released” (NT1).

At the territorial level, funding is also an issue. The Government of Northwest Territories is experiencing financial hardship due to revenue loss from mines closing down and on the moratorium on oil and gas development in the Beaufort Sea area, which have broader implications for government programming available. The natural resource sector

accounts for one-third of the territory's economy (GNWT, 2016a). Some GNWT employees have linked limited funding to timid reception of certain government initiatives. For instance, under its Small Scale Foods Program, the territorial government's Department of Industry, Tourism, and Investment (ITI) provides funding to enable the installation and establishment of community greenhouses across the Northwest Territories (GNWT, n.d2). In previous years, the Economic Development Officer (EDO) would hire summer students, fly with the summer students to the communities, help them set-up their gardens for the growing season, and train them on proper agricultural techniques. Due to the program ending that year, limited funds were available to carry-out usual activities and poor community garden attendance was noted. The EDO noted:

"I think that with sufficient funding, we would have the programming in place to be able to go into the communities and spend time with people and bring other people in [community greenhouse], to make it more encompassing, instead of just 2-3 people" (IK5).

While funding constraints may have been a challenge, others argue that success was hampered by the government's top-down decision-making approach and lack of effective community engagement in the conceptualization phase of the program. This is discussed in greater detail below.

Funding cuts in food related health services was also identified as an issue. Discussions took place to cut the Regional Dietician position at the Inuvik Regional Hospital due to budget constraints. The Regional Dietician is responsible for nutrition care in the six ISR communities, and also supports the work of each Community Health Representative (CHR). The CHRs are hired in each of the six communities and their goal is to promote

disease prevention, maintenance of health, and well-being of the community. Coupled with limited capacity and funding, there are significant gaps in health promotion around food at the community level. Current funding only allows for the Regional Dietician to travel once a year to each community, and learning opportunities are mostly limited to one-on-one interactions. The GNWT launched its 2017-2018 Healthy Choices Fund application process to develop a healthy eating program across the region, which includes a capacity building component for the CHRs. The initiative will be offering ten sessions where people attend group discussions and talk about healthy eating habits. It will also develop a learning curriculum so that the CHRs can deliver the sessions themselves. As it stands, CHRs have a very small budget for any food related programming at the community-level.

4.2.2.3 Challenge #3 – Top-Down Government Decision-Making

Although the role of governance in supporting effective food policy interventions is increasingly acknowledged, food security is recognized as a complex issue that does not lend itself to being governed easily (Candel, 2014). This stems from the fact that there are a plurality of interests and competing priorities around food security and how to achieve it, as highlighted by four distinct participants. Some respondents outside of government criticized the decision to use the funds to build greenhouses in the ISR, noting that community members were not properly consulted before the decision was made. The transparency of the decision-making process was also called into question by one participant:

“In 2013-2014, random greenhouses were dropped off in the communities. Nobody knew what they were for, and nobody knew what was going on [...]. Nobody can really say who put this in place. I am sure there is a paper trail somewhere, but as the person who is supposed to be rolling out the program, I can’t get to the bottom of who chose to spend what” (IK3).

The community greenhouses have been a point of contention between the territorial government and IRC. One senior-level employee from IRC acknowledged the good intentions of the initiative, but argued that funds could have been allocated to programs that better reflect Inuvialuit priorities:

“We were sitting around the table with Minister Bennett. Nellie and I were sitting beside each other, I think our MP as well, and a group of stakeholders were talking about the issues and a harvester said: “This is not addressing what we really need. What we really need is the means and resources to go out and do what we know how to do best and to harvest.” This greenhouse idea is being crammed down our throats; we don’t see the relevance. Our diet has never included these types of things [vegetables]” (IK2).

The participant stressed the point that there is no mention of community greenhouses in any of the six community economic development plans. Instead, they focus on country food initiatives (e.g. fish plants, abattoirs, freezers, etc.). This sentiment was also echoed by other interviewees who noted that local food production has never been a priority for Inuvialuit, and instead, resources should be focused towards supporting local hunters and trappers to go out on the land and hunt for game. A participant in Yellowknife confirmed the following:

“In the ISR, your focus shouldn’t be on gardening. If you are talking about food security governance, you should be talking to the Hunters and Trappers Associations. That is where your food security is. If it’s based on diet consumption and culture, then you are wasting your time if you are spending all your money on growing food” (YK5).

Others argued that the greenhouses are not there to take away from country foods and the traditional diet of the Inuit, but rather to complement the existing lifestyle in each community by providing healthy food alternatives. One respondent indicated:

“We really want to see the greenhouses complementing the lifestyle in each of the communities, and not working separately from it. I think that was the impression that the hunters and trappers had [if you are taking up the greenhouses, you are taking away from hunting]. Our idea is that if you give money to the greenhouses, it’s just providing more healthy options and people working together in those communities. That is the thing that we are struggling with right now. It’s a question of creating those connections with people” (IK3).

A government representative responded the following when asked about the type of engagement that took place with Inuvialuit prior to funding the community greenhouses:

“We are all well intended when we go into a community with a new idea. They are just as well intended in terms of attending a meeting or consultation, but you know, life gets in the way. [...] You go in and many times you have a discussion with one or two people and you really wish that there were more people around. We had great intentions, we went into all of our communities, and we engaged everybody who would stand still long enough to be engaged. [...] These are the challenges that you work with but you still have to stay positive because we are trying to do something that feels right” (IK5).

Under the Small Scale Foods Program, there is limited funding available to support northern food production. As an example, a small-scale fishery operation can receive up to \$50,000 in funding from the Small Scale Foods Program. According to IK2, that opportunity could not be accessed since the regional office had already committed to fund the greenhouses. When pressed about the rationale for the decision, a government representative admitted that community engagement was limited, but ultimately it was perceived that the intervention would benefit the communities.

The funding for the Small Scale Foods Program ended in March 2016 and was replaced by the Northern Food Development Program. The purpose of the program is to increase local food production and availability of northern food products for consumers in the Northwest Territories. It is targeted at local food producers, and in need of funding to grow their operations (GNWT, n.d3). The EDO worried that given the new scope of the program, resources in the ISR will be directed towards country food programs and greenhouses will no longer be of interest to the communities, which will result in them becoming obsolete.

4.2.2.4 Challenge #4 – Strategic Vision and Coordinated Approach

Addressing an issue as complex as food security requires a governance system that is sophisticated, fluid, and able to respond effectively to stressors. According to Candel (2014), the literature is critical of current institutional architectures and their ability to effectively participate in food security governance, and this is largely attributed to a lack of a strategic vision and coordinated approach from government to address food insecurity at different scales. According to the CCA (2014), a wide-range of policy and programs are needed in the North to address food insecurity, ranging from short-term mitigation strategies to long-term sustained approaches. One government employee in Yellowknife indicated that the territory is placing too much emphasis on short-term relief programs and not enough attention on long term solutions. The interviewee noted the following:

“I think it would be nice if we had something like Nunavut has in terms of a food security strategy. I think it’s really needed. As you say, there is lots of stuff going on, but there is no real organized approach yet, which I think would be more valuable in the end than to have all these pocket things going on” (YK1).

Similar observations have been made in Inuvik and Iqaluit, where research suggests that food security interventions focus heavily on temporary food assistance programs (Ford et al., 2013; Lardeau et al., 2011). Candel (2014) argues that the main critique of global food security governance is that there is no institution solely responsible for addressing food security concerns across sectors and levels. Instead, responsibilities are spread across international organisations and forums (e.g. FAO), which all have broad mandates, but none of which deal specifically with addressing food (in)security in a holistic manner (Candel, 2014). In Canada, there is no coordinated national approach to address food security (although a National Food Policy is under development), and according to one participant, this is an issue:

“There isn’t all these partners and agencies coming together to address food security, it’s only being addressed in an ad hoc manner with different programs but there isn’t a recognition that you have to work with so many partners together in order to address it. I do think that this is an issue, and I think that until there is the development of a national strategy, I don’t think you will be able to address food security with one program here and there without talking to each and working together” (YK1).

Kenney et al., (2017) argue that a coordinated food security strategy in the ISR that involves community input through community consultation and is reflective of local needs would provide a useful framework to guide decision-making to ensure that sufficient resources are allocated to address this issue.

4.2.2.5 Opportunity #1 – Collaborative Territorial Country Food Strategy

In its 2015-2020 Strategic Plan, GNWT's Department of Environment and Natural Resources committed to develop a Country Food Strategy (GNWT, 2016b). The Country Food Strategy will work collaboratively with communities, local governments, and Indigenous governments to develop priorities, goals, and outcomes that will reflect the voice of Indigenous Peoples. One government staff indicated the following:

"I see the Country Food Strategy being designed and driven by northern communities. I think that it's a critical piece. If communities are working on local or regional food security strategies, those types of things can feed into this larger conversation. There is not a one size fits all. Not all communities are going to want to do the same thing so how those planning processes connect is very important [...]. I think that a territorial country food security strategy should be something that supports or reinforces local or regional initiatives. We don't want to see something that is going to create barriers to the efforts that local and regional communities are doing so that things are connected at different scales [...]. If we are creating something that constrains local and regional levels, I think that would be a disservice" (YK6).

YK6 and YK7 both agree that there are many ad hoc initiatives taking place at different scales; however, a Country Food Strategy would bring various groups together and reinforce those linkages. YK7 also indicated the following:

"I think that by working together, there are lots of opportunities [...]. I think it's great that there is a lot of attention coming to food security now that can help us. Having a [country food] strategy will enable us to have all our partners be able to access funding. We will be able to point to a strategy of things we all agree to and be able to convince external funds to provide funding to the priorities."

As a next step, a Country Food Forum is planned for fall 2017 to initiate the planning process towards a Country Food Strategy. The goal of the Forum will be to provide a

platform to connect people, engage in broader level discussions, and identify a path forward to develop a territory-wide Country Food Strategy.

Other non-governmental initiatives in Yellowknife are also driving collaborative action on food security. The Yellowknife Food Charter was developed through the Yellowknife Farmers Market in response to a growing demand for increased cross-sectoral dialogue around food security. The Charter provides a platform to help guide all levels of government, businesses, and non-governmental organizations, within the Yellowknife food system to align their activities and draw on other existing synergies (Johnston & Williams, 2017). The Northern Farm Training Institute (NFTI) near Hay River, NWT is also supporting local food production. NFTI is “an experimental school to empower Northerners, strengthen our communities and create sustainability through local food production... [with a] focus on economical, natural, integrated holistic food production systems” (NIFTI, 2014). Yellowknife-based non-for-profit organization Ecology North is also championing local food production in NWT. For instance, it supports the *Growing Together at Weledeh* initiative, a school-based gardening program that aims to facilitate hands-on learning about growing local food. The organization has also looked at the feasibility of commercial berry growing in the NWT. According to YK6, these initiatives have all contributed to making food security an important priority of the 18th general assembly, and these organizations will play a key role in shaping the Country Food Strategy.

This section has explored governance challenges in the way food policy decisions are made in the ISR (objective #2). Human and organizational resource capacity is a challenge in the region. Some community groups have difficulty accessing government

programming due to limited knowledge on how to apply for funding. At a regional scale, the IGC and IRC have a varying degree of organizational capacity to address food (in)security. Budget constraints in food related government programming was also identified as an issue. Participants also indicated that top-down government decision-making in the conceptualization of programs and absence of a coordinated, strategic vision to address food (in)security on a territorial-scale remain significant barriers that need to be addressed moving forward. Despite these challenges, there are also opportunities for regional-scale food security governance in the ISR. GNWT is in the process of developing a Country Food Strategy that will engage with a broad range of stakeholders. The ISR will have an opportunity to shape the themes of the strategy to reflect community needs and priorities. The next section explores how to move forward on food security governance in the ISR.

Chapter 5: Discussion

A key part of this research was to identify challenges and opportunities for food security governance within the context of Inuit settlement areas through case studies of the ISR and Nunavut. This research shows that factors such as limited human and organizational capacity, budget constraints, absence of strategic vision, top-down government decision-making, and absence of meaningful engagement in the conceptualization of food security interventions remain important governance barriers for food security in the ISR. Taken together, these findings suggest further need to develop collaborative, food security governance arrangements that take into account local context, needs, and priorities. In the next section, an existing framework is used to draw on challenges and lessons learned from the Nunavut interview to propose ways on how to move forward on food security governance in the ISR (objective #3).

5.1 Framework for Food Security Governance

Based on themes that emerged in all three sets of interviews, it is evident that an alternative way of understanding and framing food security governance arrangements in Canada's North is needed. Termeer et al., (2017) developed a framework to diagnose food security governance arrangements in the South African context that is applicable in a northern context. Their framework is based on five principles: system-based problem framing, boundary-spanning structures, adaptability, inclusiveness, and transformative capacity. The five principles are further discussed below and reinforced with observations from interviewed participants.

The first principle of *system-based problem solving* calls for moving beyond one-dimensional problem frames (Dewulf et al., 2011). Because Inuit food security is a

complex issue involving many moving parts (CCA, 2014), it cannot be reduced to narrow problem frames – , for example, agricultural production, malnutrition, poor infrastructure, or biodiversity loss – that do not address the food system as a whole (Sonnino et al., 2014). This approach takes into account the fact that we operate in a dynamic environment comprised of interconnected activities at various scales driven by socio-ecological change (Walter & Salt, 2006). A core assumption in the literature is that, although difficult, governance arrangements can solve complex problems, thereby making a system more resilient to shocks and disturbances if and when they occur (Candel, 2014). As Walter & Salt (2006) define it, resiliency is “the capacity of a system to absorb disturbances; to undergo change and still retain essentially the same function, structure, and feedbacks” (p.32). When participants were asked in what ways we can promote sustained policies/programming in the ISR to address food (in)security more effectively, some mentioned the need to integrate principles of adaptive governance and resiliency into decision-making. According to one participant, taking advantage of initiatives that are occurring at different scales that mutually reinforce one another is a core component of building resiliency into a system:

“The fact that these things can reinforce, support, and mutually complement one another [food security initiatives] is so critical in terms of a resilient systems concept. This idea of building resiliency into a system [...] and making sure that all of our efforts are not in one basket. We are creating strength and support at multiple levels and continuously reinforcing those linkages between those levels. This creates a stronger, more robust system” (YK6).

Walker & Salt (2006) argue that resilient thinking requires looking at how policies / programs / governance structures above and below operate and interact with one another. A system-based approach thus rejects quests for the single framing of a

problem (Duncan, 2015) and encourages food governance arrangements that are resilient and adaptive to change in ways where “people engage to discuss tensions regarding group objectives, recognize contradictions, and deal with differences in a respective way” (Clancy, 2014, p.4).

The second principle of *boundary-spanning structures* addresses the challenge of siloed organizational structures. As mentioned above, food systems inherently involve many subsystems and “decisions that may impact food activities and outcomes occur across a range of spatial, temporal, and jurisdictional scales, and involve a wide range of public and private actors” (Termeer et al., 2017, p.2). The plurality of interests, ways of addressing problems, and organizational structures means that food security is not easily governed (Candel, 2014). Biermann et al. (2009) argue that while some institutional fragmentation can lead to innovative problem-solving, too much conflicting fragmentation can lead to poor performance. In the NWT, there is recognition among government employees interviewed that food security is a multi-dimensional issue that no one particular department has the mandate to address exclusively. Instead, conversations need to happen at multiple scales on how to leverage existing resources and work together to address food security in a holistic manner. As an example, IK6 referred to the Northwest Territories Water Stewardship Strategy (henceforth Water Strategy) as a model that emphasized cross-boundary collaboration. The Water Strategy was developed by the Aboriginal Steering Committee, the territorial government’s Environment and Natural Resources Department, and Indigenous and Northern Affairs Canada following a collaborative process to guide the effective long-term stewardship of water resources in the Northwest Territories. A series of

workshops, meetings, and presentations involving inputs from Aboriginal leadership, communities, non-government organizations, and industry shaped the Water Strategy. These same principles will be applied in the development and implementation of the Country Food Strategy.

The third principle of *adaptability* addresses challenges of uncertainty and volatility in non-linear systems. Though the need for adaptive governance is mentioned in the literature, it has seldom been empirically elaborated and tested (Candel, 2014). It is essential that food security governance arrangements remain “feasible and optimal under a dynamic environment of changing social, economic, political, and climatic conditions” (Drimie et al., 2011, p.174). This requires flexibility because “all the social and environmental ‘actors are in motion all the time — plans and strategies that aren’t adaptive will not hit the mark” (Clancy, 2014, p.2). Walker & Salt (2006) argue that promoting the involvement of community members and supporting adaptive learning are essential aspects of making socio-ecological systems more resilient to change. Adaptive learning refers to the systematic process for continually improving management practices by blending local observations with scientific knowledge, and learning from the outcomes of implemented management strategies (Pahl-Wostl, 2007). According to Walter & Salt (2006), adaptive management increases community knowledge and coordination, and keeps them involved in the decision-making process. Food governance scholars have put forth other ways to ensure food security governance arrangements are adaptive to change: self-organize into more flexible networks (Pereira & Ruysenaar, 2012); enhance monitoring and evaluation (Kenny et al., In press); adapt based on lessons learned (Duncan, 2015); encourage information

sharing (Koliba et al., 2016); and foster exchange of learning opportunities across scales and between communities (Sonnino et al., 2014).

The fourth principal of *inclusiveness* refers to who to include and exclude in decisions, and thus reflects the inherent political nature of food systems (Termeer et al., 2017). Hospes and Brons (2016) identified the limited involvement of civil society as a barrier to effective food security governance arrangements. Through meaningful engagement, “people with different content, relational, and identify goals work across their respective institutional, sectoral, or jurisdictional boundaries to solve problems, resolve conflicts, or create value (Emerson et al., 2011). Inclusion and diversity of stakeholders gives voice to multiple perspectives and different interests, allowing for more thoughtful decisions to be made (Bardach, 2001). Furthermore, involving communities could also foster a more holistic and system-based approach, and offer solutions that are tailored to meet local needs. One research participant stressed the importance of collaboration to the territorial government’s upcoming country food strategy:

“It’s one of those things about these collaborative, working together, community-based research for example, which are some of the things we are promoting when we are talking about this [country food strategy]. It does grow and we are creating co-productive spaces where people bring knowledge in and we are creating new knowledge on how to tackle a problem. We are bringing in Indigenous wisdom, science, social sciences, and policies. We need to co-create that space that is action oriented” (YK6).

The final principle of *transformative capacity* addresses the need of transformative change. This principle fits with the notion that food security is a complex issue that requires drastic new governance regimes (Candel, 2014). Transformative change refers to “shifts in perception and meaning changes in underlying norms and values,

reconfiguration of social networks and patterns of interaction, changes in power structure, and the introduction of new institutional arrangements and regulatory frameworks” (IPCC, 2012, p.465). To overcome current challenges, governance arrangements are called to enhance transformative capacity, understood as “the ability to bring about substantial sustainable system changes” (Glasbergen & Schouten, 2015, p.88). These transformative elements can include human and financial resources, political leadership, and long-term commitment (Glasbergen & Schouten, 2015).

Although similar governance frameworks have been developed (see Emerson et al., 2015), this five principle approach helps to diagnose strengths and weaknesses of food security governance arrangements and trade-offs between each principle (Termeer et al., 2017). Termeer et al., (2017) note that too much emphasis on system-based problem framing can lead to inaction. Too many inter-boundary arrangements can blur responsibilities and erode democratic accountability. Focussing on adaptiveness alone may undermine effectiveness and efficiency. Transformative capacity is necessary, but may neglect the value of stability and predictability, and might also lead to governance arrangements designed to fail. The next section uses the framework proposed by Termeer et al., (2017) to diagnose the NFSS.

5.2 Moving Forward on Food Security Governance in the ISR

In Canada’s North, our understanding of what forms of governance are most appropriate to govern food systems in a more holistic way is limited. Using the above-mentioned framework, this section draws on challenges and lessons from the Nunavut interviews to propose ways the ISR can move forward on food security governance as it develops its regional food security strategy. The views presented below are from

policy/decision-maker perspectives and does not take into account the actual implications on-the-ground.

System-based problem framing: The NFSS moved beyond a one-dimensional problem frame. It acknowledges that “addressing the food security crisis in Nunavut is a collective responsibility [...] that no single entity has the resources and capacity required to effectively address the complex issue of food insecurity” (NFSC, 2014 p.4). In the ISR, programs often address specific determinants of food insecurity; for example, access to healthy food alternatives through federal subsidies. However, the scope of programs tend to focus on short-term, food assistance program (Kenny et al., In press). A continuum of programs is needed to address food insecurity in the ISR, ranging from short-term food assistance programs to long-term policy responses that address root causes (CCA, 2014).

Boundary-spanning structures: The NFSC deliberately conceived the Strategy to guide a collective vision, enhance programming and coordinating of activities, mobilize available funding, and build political will to act. Various multi-sectoral working groups from private and public organizations were established to explore issues that could not be formalized in the Action Plan. However, challenges in coordinating schedules and lack of involvement from Coalition member organizations in the working groups hindered the effectiveness of these boundary-spanning structures. As a task group under the Nunavut Roundtable for Poverty Reduction, the NFSC featured a membership system whereby stakeholders from government, Inuit organizations, non-governmental organizations, community-based organizations, businesses and researchers could apply to become a member of the Coalition. The role of members

was to “contribute ideas, advice, opinion, and inputs during deliberations on food security issues” (NFSC, 2015 p .1). The Coalition strived for unanimous consent among members when making decisions; however, it was challenging to come to a consensus on some issues, whereas some retailer groups were thought to have delayed the decision-making process. Furthermore, internal departmental roles and responsibilities were blurred during the onset of the Strategy. The Government of Nunavut’s Department of Family Services was responsible for the poverty reduction file; however, funding from Health Canada and the Public Health Agency of Canada was initially transferred to the Department of Health. The file was subsequently transferred to the Department of Family Services to align responsibilities and budget management authorities within the same sector, thus caused confusion and unnecessary delays. As the ISR moves to develop a regional food security strategy, several factors need to be taken under consideration. To begin with, the individuals and organization(s) that will contribute to the Strategy in its development and implementation needs to be identified early on in the process to avoid confusion and unnecessary delays. Some participants noted that the IRC should coordinate this process, as it falls within their mandate to improve the economic, social, and cultural well-being of Inuvialuit. Second, consideration needs to be given to the types of groups that should be engaged. Participants interviewed in the ISR were asked which groups they felt needed to be engaged in the process. Some voiced the need to have commercial retailers at the table, since they play a large role in the market food system. All participants agreed on the need to engage with the six ISR communities to identify their local needs and priorities. This includes engaging with local Hunter and Trappers Committees,

Community Corporations, the Hamlets, and Community Health Representatives, as well as other residents. Others also expressed the need to involve the territorial and federal governments when dealing with issues such as land access, hunting regulations, harvest quotas, and food subsidies. Finally, roles and responsibilities of partners must be clearly established for greater accountability in desired outcomes.

Adaptability: The NFSS aimed to coordinate activities and develop a long-term, ongoing, and sustainable approach to food security. Further, an action plan was released to coordinate the work of the Coalition over three years (2014-2016). For each objective, a series of actions, key partners, and outcomes were identified. However, employee turnover of both original co-chairs of the Secretariat as well as the Territorial Food Security Coordinator within the same year resulted in much of the initial strategic vision and corporate knowledge for the Strategy to be lost. This made it challenging for new employees to deliver on actions and outcomes set out in the Action Plan. Employee illness, full workloads in terms of managing other pressing files, and long government staffing processes exacerbated the issue. To ensure that an ISR food security provides a foundational roadmap to address food (in)security in a sustained manner, principles of resiliency and adaptability need to be built-in. A crucial way to build resiliency is to be cognisant of various initiatives that are taking place at different scales. The ISR should align its regional food security strategy with GNWT's country food strategy to maximise on existing synergies.

Inclusiveness: In terms of development, the priority areas for the Strategy were informed by an extensive consultation process in 25 Nunavut communities. It was understood that "food security has become both a political and public priority in Nunavut, with

government departments. Inuit associations, non-governmental organizations, the private sector, and Nunavummiut working towards a common vision of a food secure Nunavut” (NFSC, 2014 p.3). To better understand these themes, thematic discussion took place in 2012. These discussions engaged a broad range of stakeholders to discuss how food security could be addressed in a sustained manner. Insights gained in these discussions culminate at the Nunavut Food Security Symposium, which was held in Iqaluit, Nunavut. The Symposium brought together 135 people from government departments, non-for-profit organizations, Inuit associations, retailers, hunter and trappers organizations, and academic institutions (Wakegijig et al., 2014). Nunavut-based partners emerged with priority areas for action on each theme. Coalition members were also accountable for the implementation of actions set out in the Strategy. Currently, some food security programs in the ISR are not aligned with community priorities. An ISR food security strategy should strive to engage with a broad range of stakeholders, foster principles of inclusiveness, and reflect community needs and priorities.

Transformative capacity: From its inception, the NFSS advocated for transformative policy changes and new and innovative ways for improving food (in)security in Nunavut. The Strategy provided the Coalition with a long-standing strategic vision, whereas the Action Plan was expected to be renewed based on political will and budgets. At this stage, it is too early to evaluate the transformative capacity of the Strategy since the Action Plan ended on March 31, 2016. That being said, Nunavut’s efforts have already triggered interests from other groups to develop a similar approach. At the national level, the Inuit advocacy group ITK is in the process of finalizing a National Inuit Food

Security Strategy. The ISR should look for other examples of integrated food security strategies to draw on lessons learned to inform their regional food security strategy process.

This section aimed to explore how the ISR can move forward on food security governance in the region. This was informed by challenges and lessons learned from the NFSS, and by a framework developed by Termeer et al. (2017) for food security governance arrangements. In terms of next steps, the ISR needs to move from a one-dimensional problem framing and address food (in)security from a multi-sectoral range of programs. As the ISR plans to develop a regional food security strategy, a number of elements need to be considered, including: which organization(s) will be accountable for the strategy, who/which groups need to be engaged in the strategy's development and implementation, and having clear roles and responsibilities outlined for all partners involved. Including principles of inclusiveness and adaptability are also important considerations to ensure that the regional food security strategy addresses community needs and priorities, and aligns with broader territorial level activities.

Chapter 6 Conclusion

This section focuses on summarizing key findings that emerged from all three sets of interviews with a range of stakeholders in Nunavut, Yellowknife, and Inuvik, as well as the analysis of the NFSS using the framework proposed by Termeer et al., (2017). I will discuss how these results relate to the broader food security literature. I end by discussing the limitations of this work, the contribution it makes to our understanding of food security governance in northern/remote context, and the next steps that are required to move ahead on this body of work.

6.1 Key Findings

Sufficient resources are necessary to address food security in a sustained manner

A theme that emerged in all three sets of interviews in Nunavut, Yellowknife, and Inuvik is the need for sufficient financial resources to address food (in)security in a sustained manner. In Nunavut's case, participants mentioned that the government secured adequate funding from Health Canada and the Public Health Agency of Canada to strike the NFSC, develop the Strategy and Action, and evaluate its implementation. The Coalition also secured funding to hire a full-time position dedicated to the file, which proved to be a crucial factor in the implementation of the Strategy. In the ISR, there is no central pot of funding for food security programs. Instead, food security programs in the ISR mostly operate based on funding from different levels of government (e.g. regional, territorial, and federal) while most community food support programs operate on a voluntary basis (Kenny et al., In press). Locally, ISR communities have a hard time accessing government programming due to rigid funding applications. Communities

often rely on government officials to write proposals to secure funding. As a result, communities have a hard time keeping track of programs in operation at any given time since they are disengaged from the application process, and often do not have the necessary tools and capacity to not take advantage of certain food security initiatives. At the regional level, capacity issues coupled with employee turnover and lack of funding also hinder the ability of organizations to effectively deliver and administer programs. Looking at the broader literature, there are unanimous calls for sufficient allocation of resources from different levels of government to improve food security outcomes (Candel, 2014). Governance arrangements often fail to address food security given that more resources are spent on shaping their architectural features as opposed to proper consideration for sustain resources for their effective implementation (Candel, 2014). In a review of food security governance arrangements in South Africa, weak coordinating structures, limited budgets, and inadequate human resources were identified as the most significant contributors to lack of progress (Termeer et al., 2017). A second type of resource that is required is political will, leadership, and prioritization (Candel, 2014). Currently, Canada does not have a national framework to address food security. The need for Canada to develop a national food security strategy was proposed by the UN Special Rapporteur on the Right to Food in 2012 (de Schutter, 2012). Many participants echoed similar sentiments, pointing towards lack of coordination and leadership as impediments to sustained food security interventions.

Food security programs need to reflect community needs and priorities

Another lesson learned is the need to develop food security interventions that are not top-down, and reflect needs and priorities of communities. Nunavut benefited from extensive community consultations that informed the priority areas of the NFSS (Wakegijig et al., 2014). In the ISR, food security initiatives tend to be ad hoc, and there are often mismatches between scales, where the intention at the administration level is not compatible with local priorities (Kenney et al., 2017). This perception was evident when discussing with some participants the GNWT's Small Scale Foods Program and the limited engagement that took place with communities in its decision to support greenhouses. While the literature emphasizes the need to transform the current fragmented institutional structures, and that "the governance system should be made more coherent and harmonized, better integrated and coordinated and more inclusive" (Candel, 2014), this may result in governance arrangements that are too top-down and prescriptive (Termeer et al., 2017). Hajer et al. (2015) refer to this phenomenon as cockpit-ism: the illusion that complex issues require top-down steering from government. In Canada's North, meaningful community engagement is necessary to ensure that food security programs are developed co-concurrently with regional priorities to maximize community participation and food security outcomes. The IRC is planning a broad public engagement process with communities to prioritize food security actions which will form the basis of an ISR Food Security Strategy and Action Plan.

Greater evaluation and accountability in food security programs is needed

Some research participants mentioned the need to include modes of evaluation in food security programs to demonstrate greater accountability based on desired outcomes. The NFSS released an action plan that sets out objectives, actions, and expected outcomes to meet the needs of Nunavummiut. While the Action Plan does lay out a foundational roadmap to address food security in Nunavut, some participants mentioned the inherent challenge in monitoring and evaluating the overall success of the Strategy due to the lack of performance indicators. Similar criticisms were made in the Auditor General of Canada's (2014) report on the Nutrition North Program, where the federal government neglected to incorporate performance indicators to measure the overall success of the program. The expert panel on food security in northern Canada emphasized the need for increased monitoring and evaluation of food security practices (CCA, 2014). Our knowledge of best practices on food security interventions is still very limited (Glacken, 2008). Program monitoring and evaluation are required to inform policymakers and the public on expected results against actions taken, as well as areas for improvement (van der Veen & Gebrehiwot, 2011). There are inherent challenges in empirically documenting food security practices and their impact on food security (Bartfeld & Ahn, 2011), including isolating outcomes from any given program, and determining effective indicators and performance measurement metrics (Kenny et al., In press). In assessing the effectiveness of food security interventions, it is important to engage communities and consider local perspectives, since these programs are put in place to serve communities (Riches, 2003). The National Collaborating Centre for

Aboriginal Health (NCCAH) published an Indigenous guide for program evaluation that stresses the importance of participatory engagement to drive meaningful results.

A framework for food security governance is needed to strengthen new and existing governance arrangements

Participants raised concerns that food security in NWT is being addressed in silos and there is a lack of communication and a coordinated approach. Apart from the NFSS, there are limited integrated food security strategies in Canada's North. Little is known about appropriate forms of food security governance arrangements that are realistic and fit community needs and priorities (Candel, 2014). As the ISR and other Inuit jurisdictions look to develop coordinated approaches, a framework for food security governance is needed to strengthen new and existing governance arrangements. This research used the five principle framework developed by Termeer et al., (2017) (i.e. system-based problem framing, boundary-spanning structures, adaptability, inclusiveness, and transformative capacity) to evaluate the NFSS. The findings of this research confirms that top-down decision-making, limited capacity and funding, and absence of strategic vision can hamper effective food security governance arrangements to be formed. However, effective food security governance arrangements are impossible without institutional reforms within government departments, which in turn requires transformative capacity (Hendriks, 2014). This aligns with the literature stating that governance institutions need to form new governance arrangements that more appropriately deal with the wicked problem of food security (Termeer et al., 2015).

6.2 Limitations

This thesis is a preliminary attempt to study opportunities and challenges for food security governance in Inuit settlement areas. A particular challenge in this research was to define what the term food security governance meant to my participants. As Candel (2014) notes, the literature is not entirely clear on what is actually meant by food security governance. This lack of clarity makes it difficult to determine what food security governance is, and what it is not. To circumvent this issue, I made sure to use 'plain language' to introduce the concept to ensure that the participants and I were discussing the same issues. Another limitation relates to the missed opportunity of engaging with stakeholders in Nunavut outside of government and program administrators to distinguish between the formal and hidden messages (Scott, 1990). Had other groups (i.e., Hunter and Trapper associations, retailers, individual community members, etc.) been engaged, the analysis would have been more inclusive. For example, participants from outside government may have had a more negative view of the overall success of the Strategy and Action Plan. Also, the majority of interviews in Yellowknife and Inuvik were with people who administer government programs. Insights on how Inuvialuit and Inuit at large perceive food security governance (both challenges and opportunities) is underrepresented in the study sample. Likewise, due to the nature of this research, which provides a regional-scale assessment of food security governance in the ISR, the findings are unique to the region. While some First Nation communities in Yukon, as well as Inuit in Nunavik and Nunatsiavut are already working towards addressing food security at a regional scale, their work is beyond the scope of this research given time constraints. However, given the cultural ties with other Inuit

regions that are faced with similar challenges, the results and recommendations from this study will provide a useful guide for those regions to build from, as well as for other Indigenous groups in Canada and abroad.

6.3 Future Research

From a research standpoint, there is an unambiguous lack of research in current food security governance arrangements (Candel, 2014), particularly in Canada's North (CCA, 2014). Furthermore, there is an absence of how the concept of food security governance applies in a real-world context (Termeer et al., 2017). In the ISR, there is limited knowledge on the nature and scope of holistic food security strategies. This research has sought to address this gap, by conducting a qualitative-participatory process to identify challenges and opportunities for regional food security governance in the ISR. This included learning from the NFSS, and proposing ways to improve food security governance in the region. Important questions to consider moving forward include:

1. How do Inuvialuit and Inuit at large understand the concept of food security governance?
2. Are there alternative ways to improve governance structures in Inuit regions to address food security more effectively? How can we integrate lessons learned from other jurisdictions? What mechanisms are best suited?
3. How does the concept of food security governance further our understanding of Inuit food sovereignty?

6.4 Implications

This research contributes to our understanding of food security governance in Inuit settlement areas. Not only does it increase our academic understanding of governance challenges at hand, it also contributes to our understanding of thoughtful governance arrangements that can foster better food security outcomes. There is a relative lack of participatory approaches in food security research in Canada's North despite increased attention from academia and policymakers on Indigenous research methods (Loring & Gerlach, 2015). This study addressed this gap, by conducting a qualitative-participatory process to think beyond the local scale and how best to influence and build food security from a regional perspective. This research has also yielded a better understanding of how an existing food security governance framework can be applied in an Inuit context.

In terms of practical application, we have increased our understanding on the nature of an existing holistic food strategy in northern Canada, challenges in the current way food policy decisions are made in the ISR, and ways to improve the governance structure to address food security more effectively at a regional level. The evidence-based recommendations herein will support improved decision-making and governance around food security at both regional and community levels in the ISR that other Indigenous and remote communities in Canada can build and adapt from. This work can also support GNWT's plan to develop a territorial country food strategy and the ISR's efforts to develop a regional food security strategy.

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Appendix A Nunavut Interview Guide

Introduction

The purpose of this project is to generate a better understanding of opportunities for regional scale engagement and synergies in food security governance in Inuit regions focussing on the ISR. I am conducting interviews with Nunavut stakeholders to examine the development and implementation of the Nunavut Food Security Strategy (NFSS) as well as assess its effectiveness to date and identify lessons learned. This research fits into a broader initiative, and as I have mentioned before, the University of Ottawa is working with the Inuvialuit Regional Corporation (IRC) to develop an ISR Food Security Strategy.

- Could you please tell me a little about yourself in terms of your occupation and some of your main responsibilities?
- Can you please describe to me how you were implicated in the NFSS? Roles and responsibilities?

Theme 1: Multi-level engagement and synergies

- How did the coalition engage with stakeholders to develop the actions and outcomes for each theme of the strategy?
- How does the coalition solicit ongoing, periodic feedback from stakeholders to improve food security actions and outcomes outlined in the strategy?
- How do you see the NFSS fitting into Inuit Tapiriit Kanatami's efforts to develop and implement a national food security strategy? Will it complement one another?

Theme 2: Challenges and lessons learned

- Were there any challenges in engaging with partners during the development and implementation process?
- Was there a strong consensus among stakeholders on the six themes in the NFSS?
- Were there any challenges in developing the strategy and what continues to be in its implementation?
- Would you say that the NFSC is on-track to meet its outcomes set out in the Action Plan 2014-2016? In your opinion, are there certain themes that are doing better than others?
- Are there any lessons learned from your involvement in the NFSS you would like to share that would inform a similar process in the Inuvialuit Settlement Region?

Theme 3: Opportunities and future direction

- Is there an internal process that will evaluate the lessons learned from the action plan? Are there any plans to renew the action plan after 2017?

Appendix B ISR Interview Guide

Introduction

We know that the availability and affordability of good quality food is an issue in the North. To address this, the Inuvialuit Regional Corporation (IRC) is interested in developing a food security strategy (FSS). We are from the University of Ottawa, working with IRC to gather information and provide a foundation for this strategy. Part of what we want to do today is to better understand how decisions are made about food, and also which stakeholders should be involved in developing and implementing a FSS. Do we have your consent to participate in this study?

Icebreaker question

- Can you please tell me a little bit about yourself in terms of occupation and some of your main responsibilities?

Theme 1: Food security governance landscape

- Within the ISR, which organizations/departments make food related decisions? Are roles and responsibilities clearly defined? Is there a strategic vision?
- Are there any other organizations that are involved in food related initiatives in the ISR?

Theme 2: Multi-level engagement and synergies

- In your opinion, which organizations/people need to be involved in the development of a regional food security strategy? Industry, non-for-profit organisations, government?
- In your opinion, which organizations/people need to be involved in the implementation of a regional food security strategy?
- Is there a specific group that should be taking ownership/lead on developing and implementing the strategy?

Theme 3: Challenges and barriers

Part of this research is also looking at other food security strategy initiatives such as the Nunavut Food Security Strategy and Action plan and identifying challenges and lessons learned from their process to develop a similar approach in the Inuvialuit Settlement Region. In Nunavut, turnover and general lack of capacity impacted the Government of Nunavut's ability to deliver their program.

- Has this been an issue in your organization? If so, how do mitigate and adapt to those challenges?
- Are there any other challenges you can think of that need to be factored in order to develop to develop a food security strategy?

Theme 4: Opportunities and future direction

- In your opinion, what would a regional food security strategy look like?
- Are there any existing resources at the regional or territorial level that can be leveraged to help develop a regional food security strategy?

Appendix C Government of Northwest Territories Interview Guide

Introduction

We are working with the Inuvialuit Regional Corporation to develop and implement a regional food security strategy. As part of this process, I have interviewed people in Inuvik to better understand: (1) the decision-making structure in the ISR and (2) which organizations (and people) would need to be involved in planning, developing, and implementing a food security strategy. I am now in Yellowknife to conduct similar interviews, with a focus on finding ways to connect a regional food security strategy with territorial level work / priorities / existing strategies and leveraging existing resources to facilitate this process.

Landscape

- Can you tell me a little bit about yourself in terms of your occupation and some of your main responsibilities?
- Can you tell me a little bit more about the Country Food Strategy in terms of how it came about and who/which groups are involved in those discussions?
- Within the GNWT, which departments make food related decisions on market food, country food, and locally produced food? Are roles and responsibilities clearly defined? Does their mandate overlap, is there a strategic vision?
- Are there any other organizations that are involved in food security related work at the territorial level (e.g., Ecology North, WWF, Yellowknife Farmers Market, etc.)?

Multi-level engagement and synergies

- Are there ways to connect a regional food security strategy with territorial level work / priorities / existing strategies and how (Anti-poverty Strategy, Traditional Livelihoods, etc.)?
- What role do you see ENR and/or your program specifically in shaping the development of a regional food security strategy?
 - Are there any stakeholders in Yellowknife that you can think off that would need to be implicated in the development and implementation of a regional FFS?

Governance barriers

Part of this research is also looking at other regional food security strategies such as the NFSS and identifying challenges and lessons learned from their process to develop a similar approach in the ISR. In the Nunavut context, turnover and general lack of capacity impacted the GN's ability to deliver their program.

- Has this been an issue within GNWT? If so, how do you mitigate and adapt to those challenges?
- One critique that I hear is that government operates within their own silos and there is a lack of communication between departments / directorates / programs to maximize synergies. Similarly, they get criticized for their top-down decision-making approaches (e.g. Inuvik community greenhouse). Have you observed this as well? Why does this happen in your opinion?
 - Are there ways you can think of to mitigate this issue?
- Are there any other challenges you can think of that need to be factored in order to develop a regional food security strategy?
 - Governance complexity of the region?
 - Budgets restraints?

Appendix D Nunavut Consent Form

Regional-scale food security governance in Inuit settlement areas: Opportunities and challenges in Northern Canada

Invitation to an Interview

You are invited to participate in an interview conducted by Nicholas Girard, as part of a qualitative research project to understand the governance landscape for food security in the Inuvialuit Settlement Region (ISR), Northwest Territories. The research topic is focused on gaining a better understanding of opportunities for regional-scale engagement in food security governance in Inuit regions.

About the Interview: The purpose of the interview is to learn more about the development and implementation of the Nunavut Food Security Strategy and Action Plan, including the community and regional consultation process, timeline and costs for creating and implementing the Strategy, follow-up processes to communicate results to communities, and progress-to-date. The interview will last approximately 1 hour, will be conducted over Skype or phone. It will be audio-recorded for research purposes only.

Risks: The risks of participating in this interview are minimal. Participant's sharing expertise and opinions will be treated as confidential and will be safeguarded. Results will not be associated with any of the results.

Benefits: Your participation in this research will allow us to identify lessons learned from the Nunavut Food Security Strategy and Action Plan. This will provide important contextual information for the development of a regional food security strategy for the ISR.

Confidentiality and anonymity: The information you share will be treated confidentially, and used only by Dr. Sonia Wesche and myself for the purpose of this research. The interview data will be confidential; your name will not be used or associated with your answers. Confidentiality will be protected by the fact that participants will only be referenced by their professional sector – no personal or identifying information will be collected.

Conservation of data: The data collected (both transcripts and audio recordings) will be coded/anonymized (all data with personal identifying information will be destroyed following transcription). Anonymized data will be stored in a secured room at the Department of Geography, Environment, and Geomatics for five years. Thereafter it will be destroyed.

Compensation: No compensation will be offered.

Voluntary Participation: You are under no obligation to participate. If you choose to participate, you may refuse to answer questions that you do not want to answer, and you can withdraw from the study at any time. If you choose to withdraw, you can decide whether the data gathered until the time of withdrawal is kept or discarded.

Disclaimer: I am employed by the federal government under a casual contract in the department of Indigenous and Northern Affairs Canada's Climate Change Division. This research is not affiliated in anyway with my professional responsibilities and is being conducted to meet requirements for a Master's degree.

Acceptance: I, _____, agree to participate in the above research study on *regional food security governance in Inuit settlement lands: challenges and opportunities in northern Canada* conducted by Nicholas Girard as part of as part of a qualitative research project to understand the governance landscape for food security in the Inuit regions.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca

Participant's signature:

Date:

Researcher's signature:

Date:

Appendix E ISR Consent Form

Regional-scale food security governance in Inuit settlement areas: Opportunities and challenges in Northern Canada

Invitation to an interview

You are invited to participate in an interview conducted by Nicholas Girard, as part of a qualitative research project to understand the governance landscape for food security in the Inuvialuit Settlement Region (ISR), Northwest Territories. The research topic is focused on getting a better understanding of opportunities for regional-scale engagement and synergies in food security governance among Inuit, focussing on the ISR.

About the interview: While significant ISR food security-related research exists, the region has seen limited focus on understanding governance structures and needs on a regional scale to promote food security. This research seeks to understand the regional-scale governance landscape in relation to food security in the ISR, identifying key aspects of food security and the relevant frameworks in place at different scales and better understand the concept of food security governance in the Inuit context. The interview will last approximately 45 minutes, will be conducted over Skype or phone, and will be recorded upon your consent for accuracy and research purposes only.

Risks: The risks of participating in this interview are minimal. Participant's sharing expertise and opinions will be treated as confidential and will be safeguarded. Results will not be associated with any of the results.

Confidentiality and anonymity: The information you share will be treated confidentially, and used only by Dr. Sonia Wesche and myself for the purpose of this research. The interview data will be confidential; your name will not be used or associated with your answers. Confidentiality will be protected by the fact that participants will only be referenced by their professional sector – no personal or identifying information will be collected.

Benefits: Your participation in this research will help inform evidence-based recommendations to support the development and implementation of a regional food security strategy for the Inuvialuit.

Conservation of data: The data collected (both transcripts and audio recordings) will be coded/anonymized (all data with personal identifying information will be destroyed following transcription). Anonymized data will be stored in a secured room at the Department of Geography, Environment, and Geomatics for five years. Thereafter it will be destroyed.

Compensation: No compensation will be offered.

Voluntary Participation: You are under no obligation to participate. If you choose to participate, you may refuse to answer questions that you do not want to answer, and you can withdraw from the study at any time. If you choose to withdraw, you can decide whether the data gathered until the time of withdrawal is kept or discarded.

Disclaimer: I am employed by the federal government under a casual contract in the department of Indigenous and Northern Affairs Canada's Climate Change Division. This research is not affiliated in anyway with my professional responsibilities and is being conducted to meet requirements for a Master's degree.

Acceptance: I, _____, agree to participate in the above research study on *regional food security governance in Inuit settlement lands: challenges and opportunities in northern Canada* conducted by Nicholas Girard as part of as part of a qualitative research project to understand the governance landscape for food security in the Inuvialuit Settlement Region, Northwest Territories.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca

Participant's signature:

Date:

Researcher's signature:

Date:

Appendix F Government of Northwest Territories Consent Form

Regional-scale food security governance in Inuit settlement areas: Opportunities and challenges in Northern Canada

Invitation to an Interview

You are invited to participate in an interview conducted by Nicholas Girard, as part of a qualitative research project to understand the governance landscape for food security in the Inuvialuit Settlement Region (ISR), Northwest Territories. The research topic is focused on gaining a better understanding of opportunities for regional-scale engagement in food security governance in Inuit regions.

About the Interview: The purpose of the interview is to gain a better understanding of how decisions about both country and market food are made in the ISR, who makes these decisions, and how we might be able to improve food security through the development of a regional Food Security Strategy. The interview will last approximately 1 hour, will be conducted either face-to-face or over Skype or phone. It will be audio-recorded for research purposes only.

Risks: The risks of participating in this interview are minimal. Participant's sharing expertise and opinions will be treated as confidential and will be safeguarded. Results will not be associated with any of the results.

Benefits: Your participation in this research will provide us with the context to conduct a consultation process in the six (6) ISR communities to support the development of a regional food security strategy.

Confidentiality and anonymity: The information you share will be treated confidentially, and used only by Dr. Sonia Wesche and myself for the purpose of this research. The interview data will be confidential; your name will not be used or associated with your answers. Confidentiality will be protected by the fact that participants will only be referenced by their professional sector – no personal or identifying information will be collected.

Conservation of data: The data collected (both transcripts and audio recordings) will be coded/anonymized (all data with personal identifying information will be destroyed following transcription). Anonymized data will be stored in a secured room at the Department of Geography, Environment, and Geomatics for five years. Thereafter it will be destroyed.

Compensation: No compensation will be offered.

Voluntary Participation: You are under no obligation to participate. If you choose to participate, you may refuse to answer questions that you do not want to answer, and you can withdraw from the study at any time. If you choose to withdraw, you can decide whether the data gathered until the time of withdrawal is kept or discarded.

Acceptance: I, _____, agree to participate in the above research study on *regional food security governance in Inuit settlement lands: challenges and opportunities in northern Canada* conducted by Nicholas Girard as part of as part of a qualitative research project to understand the governance landscape for food security in the Inuvialuit Settlement Region, Northwest Territories.

If I have any questions or require more information about the study itself, I may contact the professor or the student mentioned above.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca

Participant's signature:

Date:

Researcher's signature:

Date:

Appendix G University of Ottawa Ethics Approval

File Number: H01-14-10C

Date (mm/dd/yyyy): 02/09/2017



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

Ethics Approval Notice Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Laurie	Chan	Science / Biology	Principal Investigator
Shannon	O'Hara	Others / Others	Co-investigator
Sonia	Wesche	Arts / Geography	Co-investigator

File Number: H01-14-10C

Type of Project: Professor

Title: Food security, Ice, Climate and Community Health

Renewal Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
10/26/2016	10/25/2017	Renewal

Special Conditions / Comments:

N/A