

TAKING UP THE PLOW (AGAIN)? EXPLORING THE RESURGENCE OF FIRST NATIONS
FARMING AND FOOD PRODUCTION IN CENTRAL SASKATCHEWAN

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By

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ABSTRACT

The Canadian Prairies are known as a centre of agriculture and food production, but the experiences of Indigenous peoples are rarely included in this narrative. This research investigated the current state of First Nations farming and food production (FNFFP) in Central Saskatchewan. I explored the interest, ideas, and efforts of local First Nations to build their own food systems and to use food production as a driver of community development. Empirical data were gathered through: semi-structured interviews with the “Champions” who spearhead FNFFP initiatives in the region, along with the organizations that support them; an intrinsic case study of Muskeg Lake Cree Nation’s “food forest” initiative, drawing on participant observation and semi-structured interviews; and, the use of a document review and semi-structured interviews to learn how past (twentieth century) experiences shape the sector today. FNFFP Champions (including those from Muskeg Lake) were brought together to discuss initial research findings. While the sector’s growth has been restricted due to a lack of enabling government policies and programs, and the socio-economic challenges that First Nations face in the region, a significant number of communities *are* investing time, energy, and ideas into FNFFP initiatives. They do so for multiple reasons, including health, food security, and land-based education. With the help of Champions and supportive organizations (both Indigenous and non-Indigenous), First Nations are innovating to build capacity, overcome barriers, and use food, and the growing of food, as a vessel for broader community development and self-determination goals.

KEY WORDS

First Nations, food systems, farming, social innovation, rural, community-engaged research

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Lastly, while my research never claimed to be decolonizing in itself, I did work diligently to find ways for my research to be useful for the Champions who participated in this work, particularly Muskeg Lake Cree Nation. In the future, I might look back and realize missteps or better decisions I could have made as a researcher. However, this was a very valuable experience for me and I know it will guide me, and hopefully others, to conduct better research with Indigenous communities in the future.

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DEDICATION

This thesis is dedicated to Deanna Greyeyes, who passed away shortly after I met with her. She was an avid gardener, loving mother and grandmother. She will be missed yet remembered fondly.

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ABBREVIATIONS

AAFC – Agriculture and Agri-food Canada
CFTC – Canadian Feed the Children
FNFFP – First Nations farming and food production
FSIN – Federation of Sovereign Indigenous Nations (formerly Saskatchewan Indian)
ILMI – Indigenous Land Management Initiative
MLCN – Muskeg Lake Cree Nation
SFNEDC – Saskatchewan First Nations Economic Development Corporation
SIAP – Saskatchewan Indian Agriculture Program
SIEF – Saskatchewan Indigenous Equity Foundation
SPI – Strategic Partnership Initiative
UNDRIP – United Nations Declaration on the Rights of Indigenous Peoples

CHAPTER ONE: INTRODUCTION

1.1 Research context

Farming has been and continues to be a fundamental component of food systems among local and Indigenous communities in Canada and around the world (Dawson 2003; Nabhan 2008; Wiebe, Desmarais and Wittman 2011). However, in the Canadian Prairie provinces of Saskatchewan, Manitoba and Alberta, research on Indigenous farming and food production, particularly those of First Nations, has been limited, despite the leading role that agriculture plays in provincial and regional economies.

Most reports and studies that mention First Nations farming practices and traditions in the Prairies refer to the period between 1870 and the early 1900s (Dawson 2003). This is despite evidence that Indigenous peoples farmed and grew their own food before the arrival of the Europeans (Dawson 2003; Flynn and Sims 1996; Little 1984), as well as a possible resurgence of Indigenous farming practices in recent years (Erenberg 2013). Post-contact, farming by Indigenous peoples was initially supported by the Crown through the Treaty negotiations (Taylor 1985), but with limited success as Canadian Government policies – such as the Home Farming experiment and Greater Production Campaign (GPC) (Buckley 1992; Dawson 2003) – were imposed upon Indigenous communities (Nestor 1998). The Canadian State’s paternalistic relationship with First Nations, which was rooted in racist and assimilatory worldviews and practices are recognized through the Truth and Reconciliation Commission’s inquiry on the Residential School system (TRC 2016). However, this paternalism also served to stifle any efforts on the part of many communities to farm independently (Carter 1990; Carter 1999; Poitras 2000), further encouraged dependency on the Canadian state (Buckley 1992; Carter 1990; Dawson 2003) and painted farming as a key instrument of colonialism over Indigenous peoples (Crosby 1986). By the turn of the twentieth century, farming as an economic pursuit was barely feasible for First Nations, given the restrictive nature of government policies and agents, and inability to compete with settler agriculture (Bateman 1996; Buckley 1992; Carter 1990; Dyck 1970; Elias 1988).

Today in the region, we know little about what I term “First Nations farming and food production” (FNFFP) interests and initiatives from the published literature. In Central Saskatchewan over the past decade, there have been reports of local First Nations looking to

revive or establish farming and food production as an economic activity (Erenberg 2013), with some communities (notably Flying Dust First Nation) selling locally-grown produce to grocery chains in regional urban centres. Yet, in the absence of empirical inquiry, little is known about how extensive or at what scale these activities are taking shape, the specific factors and reasons – i.e. food security and food sovereignty, self-determination, sustainable economic development, connection to land, health and nutrition, among others – that might underpin or drive such interest, and the innovations that First Nations are engaging in as part of this sector.

This research was designed to explore if, how, and why farming and other forms of food production and processing are being actively considered by local First Nations. The work forms part of a body of emergent, applied research that is inspired by, or contributes to, the concept and methodology of ‘biocultural design’ (Davidson-Hunt 2016; Davidson-Hunt et al. (2012; 2017)) – which concerns the processes by which local or Indigenous communities, with external support where appropriate, co-create innovative products or services rooted in some aspect of their biological and cultural heritage and that respond to contemporary development aspirations or challenges (Davidson-Hunt et al. 2017).

1.2 Purpose statement

To explore the current state of First Nations farming¹ and food production (FNFFP) in Central Saskatchewan, and its potential contribution to contemporary community development pathways.

1.3 Objectives

The research was guided by three objectives:

1. Document and explore the recent history of First Nations farming practices and food production in the study region;
2. Investigate contemporary interest and activities in farming and food production among local First Nations; and,
3. Explore ideas for innovation and growth in this sector.

¹ I acknowledge that past history (which associates First Nation farming practices with colonialism, oppression and dispossession) may lead local communities and their members to eschew the language of “farming” in preference for terms such as “gardening” or “growing food”.

1.4 Research intent

I acknowledge that this research took place on Treaty 6 territory of the *Néhiyawak* (Plains Cree) First Nations and the Homeland of the Métis nation. As such, I strove to uphold the intent of peace and cooperation between Treaty peoples. A crucial aspect of working with Indigenous communities in research is the disruption of colonial narratives and discourses. I tried to pay careful attention to how I conveyed the views and ideas of Indigenous peoples in my writing to ensure that they were not misrepresented, or their heritage and knowledges appropriated (see Younging 2018). Smith (2012) outlines five specific areas necessary for conducting research in a decolonizing manner: Critical consciousness in challenging hegemonic epistemology and ontology; unleashing Indigenous epistemologies; working with the intersections of varying ideas, social experience and history; counter-hegemonic movements, and; disrupting imperialist power relations (201). While these areas are somewhat broad, they were useful guiding points that I used as continual references during the research process and to promote research that contributes to dismantling colonial prejudices towards Indigenous peoples. Research holds incredible power that can deeply affect people(s), communities and lives in a positive or negative way, thus exceptional diligence throughout the research process is essential to prioritizing Indigenous empowerment in its outcomes.

1.5 Organization of the Thesis

This thesis is organized into seven chapters. The following chapter provides a review of literature relevant to the history of FNFFP in the region, potential drivers of current interest in the sector today and the role of innovation in helping this sector to grow. Chapter three presents the methodology and methods used in this research. Chapter Four presents research findings for Objectives 1 and 2; characterizing the contemporary FNFFP sector in Central SK, and how the recent past informs what is seen today. Chapter Five presents additional findings for Objective 2, and those for Objective 3. The focus here is on barriers, the role of FNFFP Champions in overcoming those barriers, and what innovations are being used to overcome those barriers. Chapter Six provides a discussion of the research findings, namely: how and why the sector today differs from the past; the role that food production may play in decolonization efforts; how Champions, partner organizations and First Nations are contributing to social innovation in the FNFFP sector; and if and how the sector can strengthen moving forward. Chapter 7 provides a brief conclusion and recommendations for future research.

CHAPTER TWO: LITERATURE REVIEW

The following literature review demonstrates the current state of knowledge regarding First Nations farming and food production in the Canadian Prairies, as well as broader food, environment, and development issues as they affect Indigenous communities in the region and beyond. It is split into three main sections. In the first section, I focus on the historical experiences of First Nations and farming, including a timeline that maps out the key phases of Indigenous farming history for the region, from pre-contact to nineteenth and twentieth-century decline and possible re-emergence in recent years. An in-depth review is provided for each phase or notable event. In the second section, I examine some of the key issues or factors that may explain contemporary First Nations interest and motivation in developing or strengthening farming and food production practices. These issues and factors are: pathways to self-governance; food security and food sovereignty; environmental sustainability and (re)connection to land; and economic development. In the third section, I look at the concepts of Indigenous capacity building, entrepreneurship, social enterprises, and innovation to explore ways by which food and food systems can contribute to community development. This literature review provides the conceptual framing for the research and identifies the scholarly areas and knowledge gaps that I intended to address through the research.

2.1: First Nations and farming in the Canadian Prairies: A brief history

Figure 2.1 shows a historical timeline of Indigenous farming practices in the Canadian Prairies, identifying five main phases. These are explained in detail below.

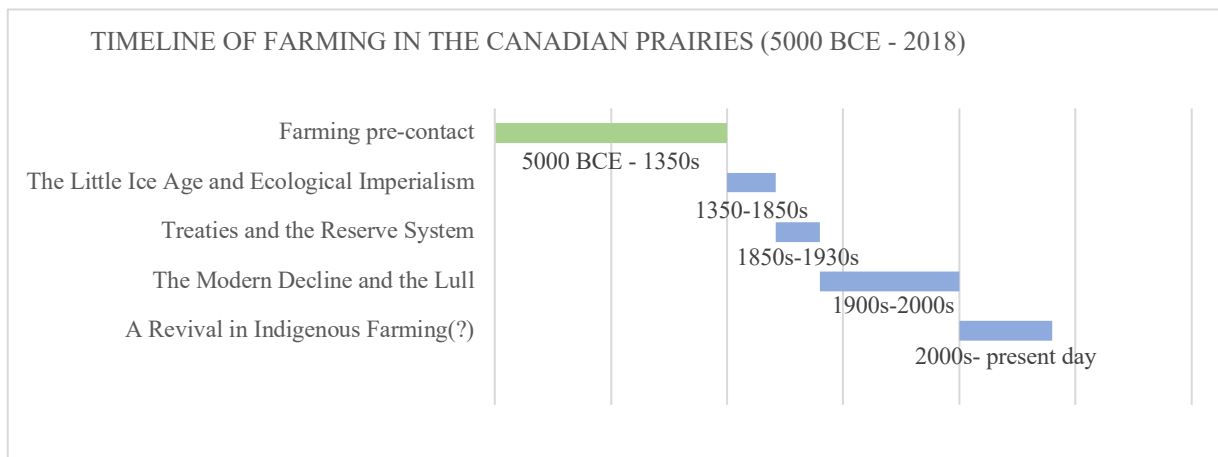


Figure 2.1: Timeline of Indigenous farming in the Canadian Prairies

2.1.1 Farming pre-contact (5000 BCE – 1350s CE)

The numbers of Indigenous peoples living in the region during this period are very difficult to estimate, but prior research suggests the region was home to various Assiniboine, Plains/Woods/Swampy Cree, Blackfoot, Gros Ventures, Kutenai, Shoshoni, Crow and Tsuut'ina bands (Carter 1999, 24). Evidence of farming by Indigenous peoples dates as far back as 7,000 years ago for Midwestern North America (Dawson 2003; Fagan, 1989). Just south of the Canada-US border, Hidatsa and Arikara peoples were growing “corn, beans, squash, sunflowers, pumpkins, and tobacco... over seven centuries” and traded extensively with Plains Cree peoples (Carter 1999, 26). In the Canadian Prairies, corn was being grown in what is now southern Manitoba at least as far back as 1400 (Dawson 2003; Manitoba Culture, Heritage and Citizenship, n.d.) and probably well before. Although the extent of Indigenous farming in the Canadian Prairies was limited at this time, Indigenous people living in the region were undoubtedly familiar with agricultural practices prior to contact with Europeans (Dawson 2003; Carter 1999; Flynn and Sims, 1996). Further evidence is found in the Dakota name for the month of June, which translates as “the moon when the seedpods of the Indian turnip² mature” (Dawson, 2003; Little, 1984). Similarly, the Blackfoot peoples grew tobacco pre-contact, with a tobacco-planting ceremony celebrated each spring with over 230 songs (Carter 1999).

Farming and food production practices pre-contact were not the main focus of this research; however, section 4.2 in Chapter four does touch on the importance of seeds, trade and Indigenous relationships with farming.

2.1.2 The ‘little ice age’ and ecological imperialism (1350s – mid-1800s)

In the mid-1600s when the first European explorers arrived in the Canadian Prairies, little evidence of farming was found. This, however, is likely attributed, in part, to the “Little Ice Age,” which, according to geographer Jane Grove, took place during the period 1350-1850 (Dawson 2003) and constituted a colder-than-normal period that rendered most farming in the region infeasible. Following the onset of the Little Ice Age, evidence of farming in the region stops, as Indigenous peoples moved seasonally throughout their territories to follow foods such as bison and elk (Dawson 2003; Little 1984). However, scant record of farming at the time of

² Indian is used in this thesis to maintain an original quote, or to denote Indigenous peoples legally considered “Indians” under the Indian Act of Canada. See Younging (2018) for terminology and style suggestions.

European contact does not mean that farming was not in the social memory of local Indigenous Peoples. Blackfoot chiefs signed a statement in 1879 that maintains their “ancestors were tillers of the soil” (Dawson 2003), recognizing and affirming the role that farming had played in Indigenous livelihoods. Unfortunately, what scholarly literature exists relies little on the first-hand insights and accounts of Indigenous Elders and Knowledge Keepers.³

A second factor that likely contributed to the decline in Indigenous farming practices is the ecological transformations that came with the arrival of Europeans and their biota, or what historian Alfred Crosby refers to as “portmanteau biota” of plants, animals and diseases. Crosby (1986) demonstrates the huge impact that the introduction of European organisms had on the Americas in his work *Ecological Imperialism: The Biological Expansion of Europe from 900-1900*. While some domesticated animals, such as horses, were adopted and became an important part of Indigenous cultures on the Plains, domesticated pigs and cattle readily populated lands previously dominated by wild bison. Marshlands, lakes and forested areas that were essential for Indigenous foods and medicines were transformed by invasive species such as purple loosestrife, and later cleared to make way for Western agricultural practices. In addition, the epidemic spread of introduced diseases decimated Indigenous populations and greatly disrupted their social structures and practices, which included traditional growing or harvesting of food. With the drastic decline in bison herds and other subsistence foods, and the introduction of European food production systems on traditional landscapes, Indigenous peoples were forced to cope with a much-changed environment.

2.1.3 The Treaties and the reserve system (1800s-1930s)

Bruce Dawson (2003) provides an extensive review of the academic and grey literature on colonial farming practices, to suggest that such practices rose to prominence around the time that Treaties 4-7 were signed. The Numbered Treaties were a series of peace and land title accords signed by the British Crown, on behalf of the Canadian government, and the First Nations (“Indian”) peoples of the Northwestern plains from 1871-1877 (Taylor 1985). Treaties 4-7 specifically cover the Canadian Prairies from the Canada-US border up to Central Saskatchewan and Alberta, and from the Rocky Mountains to Manitoba. In Central Saskatchewan, Cree, Assiniboine and Dene leaders signed Treaty 6 in 1876, in part because they

³ “Elder” is capitalized to signify people who hold traditional knowledge in Indigenous communities. See Younging 2018 on *Elements of Indigenous Style*.

saw the Treaty as a way to receive technical assistance and supplies in support of farming on reserve lands.⁴ The Treaties remain crucial and sacred documents to the signatory First Nations peoples and shape their relationship to the Crown and the modern Canadian state.

Dawson references works by Noel Dyck (1970), John Taylor (1985), John Tobias (1983), J.R. Miller (1989), Sarah Carter (1983,1989,1990,1999), James Dempsey (1984), Helen Buckley (1992), Rebecca Bateman (1996) and Peter Douglas Elias (1984), who all note how Indigenous peoples in the Prairies became more interested in farming in the mid-1800s as bison populations declined and they could no longer sustain seasonally driven, multi-sited lifestyles and food acquisition. At the time of Treaty-making, the Canadian government wanted to sequester “Indians” into “reserves” to make room for settlers and the trans-national Canadian Pacific Railroad. At the same time, Indigenous peoples wanted to secure a future for themselves by being guaranteed sacred protection under the Crown and learning European farming techniques – growing wheat and oats, raising cattle – to help sustain their populations.

After reserves the federal government established reserves and settlers began to move onto the plains, the nature (and interpretation) of the treaty agreements between Indigenous peoples and the Canadian government (representing the Crown) drastically changed. Initially, the Treaty signatories – specifically in Treaties 4 (Southern Saskatchewan) and to a greater extent 6 (Central Saskatchewan and Alberta) – received farming implements (seeds, ploughs, hoes, etc.) for a few years to foster European-style farming. But supplies were limited and insufficient to provide the support that Indigenous farmers needed. Once supplies ran out, Indigenous farmers were unable to get more seeds, repair tools, or update equipment as trends moved towards more mechanized and larger-scale farming. Initially, bands purchased equipment to be used collectively as groups worked together to help harvest individual plots. But this practice was discontinued when settlers perceived collective farming as unfair to non-Indigenous farmers.

Another blow to First Nations farming came with the introduction of the Pass and Permit systems in the 1880s, which placed restrictions on Indians for leaving reserves and on settlers from entering them (Bennett 1974). As a result, all transactions went through the local Indian Agent – a federal government official stationed to manage and monitor individual Reserves – who often discriminated in favour of settlers or the state. Despite these challenges, some Indigenous farmers did become competitive in terms of crop yields and quality compared to their

⁴ Notable Chiefs at this time included Mistawasis, Ahtahkakoop, Kahkewistahaw and others.

settler counterparts. As former North-West Council clerk Amédée Forget of the Battleford district noted, “if the crops had been good every year, today the Indians would be as good farmers as any others” and attributed reluctance to farm “to crop failure more than to anything else” (Carter 1990, 140). By 1885, the federal government recognized the aptitude of First Nations farmers and their impact on Canadian agriculture and colonial settlement.⁵ These accounts are well-documented by Buckley (1971;1992), Carter (1983, 1989, 1990) and Elias (1984). However, they mostly apply to Treaty 4 lands (southern Saskatchewan) with less known about the experiences of Treaty 6 peoples in Central Saskatchewan.

Competition for land among farmers resulted in a shift in policy that began to emphasize greater control of Indigenous farming at the hands of the Canadian state.⁶ An integral figure in this changing relationship was Hayter Reed, Canada’s Indian Commissioner from 1888-1892 (Nestor 1998), who instituted specific policies such as the Home Farming experiment, “peasant” farming initiatives and the Greater Production Campaign (GPC) – discussed at length in Sarah Carter’s *Lost Harvests* (1990) and Helen Buckley’s *From Wooden Ploughs to Welfare* (1992). These policies restricted First Nations farmers in terms of what farming implements they could own, and where they could sell the food they produced. The GPC stayed in place until 1918 and set a strong precedent for the control of Indigenous peoples and their livelihoods through agricultural practice (Dempsey 1983). Carter (1990, 1991) and others (Buckley 1992; Bateman 1996; Dawson 2003; Dyck 1970; Elias 1984) argue that Reed’s policies systematically discouraged Indigenous peoples from farming, and that he did this to justify annexation of reservation territory into the Canadian state – land which he felt was no longer needed/productive for the people living there.

While Reed made a significant contribution to the disregard of Indigenous peoples in Canada, he was not responsible for perhaps the worst incidence of settler farming ideology imposed upon Indigenous peoples in the Canadian Prairies. The File Hills Colony – a moving account of which is provided in the film, *To Colonize a People: The File Hills Indian Farm Colony* (Poitras 2000) – was located in a Peepeekisis reserve shared by Cree, Dakota, Blackfoot and Dene peoples in the Qu’Appelle Valley, northeast of Regina, Saskatchewan. As Winona Stevenson – an Indigenous studies scholar at the University of Regina – notes, the File Hills

⁵ Forget also praised the First Nations gardens along the Qu’Appelle Valley (Carter 1990).

⁶ Similar colonial tactics are seen in US Native American policies during the same era (Buckley 1992).

Colony was among “the most horrendous social engineering projects in Western Canada, [and perhaps ever] in Canada” (Poitras 2000). Conceived by William Graham, graduates from the Regina Industrial School were sent to the colony to teach Indigenous peoples in European ways of living and farming. While the Colony farmers became very productive, they did not own any of their own crops or livestock and had to get permits for all of their farming activities (Bateman 1996; Carter 1991; Poitras 2000). As Indigenous competition with non-Indigenous farmers increased, many Colony farmers were racially barred from selling their products to nearby settler towns, and settler farmers were disdainful of Indigenous farmers because of the supposed benefits they “unfairly” received from the Federal government (Tang 2003). Settler farmers actively prevented Indigenous farmers’ goods from being sold in nearby towns through boycotts and price gouging (Buckley 1992; Carter 1990; Poitras 2000) and settlers were fined for purchasing Indigenous farmer produce that was purportedly sold without a permit (Tang 2003).

The impact of policy and strained Indigenous-settler relationships led to the economic stagnation of the File Hills Colony, reflective of what happened to Indigenous farming in general where control by the state superseded productivity and the “civilizing” of Indigenous peoples (W. Graham 1991; Poitras 2000). The program at File Hills faded in the 1930s with the advent of the Great Depression and “the Dustbowl” drought conditions. Some in the Colony persisted with farming for a while, but many Indigenous farmers gave up and left Peepeekisis. By the 1950s, only a small handful of farmers remained (Tang 2003), and the oppressive legacy of the social engineering project left a deep impression on the community.

2.1.4 The modern decline and lull (1900s)

The File Hills Colony example demonstrates how the government attempted to assimilate, placate, restrict Indigenous mobility and identity, and emphasizes the erroneous belief that farming was socially and economically infeasible in Indigenous communities. Numerous scholars (Bateman 1996; Buckley 1992; Carter 1990; Dyck 1970; Taylor 1975; Tobias 1983; Dempsey 1984, Dawson 2003) show that twentieth century decline in Indigenous farming in the Canadian Prairies resulted from a combination of stifling government policy – designed to control Indigenous people, restrict their mobility and remove them from their territory – and racism towards Indigenous peoples and their activities by newly arrived settlers.

By the Second World War, poor settler-Indigenous relationships and stifling government policies caused First Nations communities to lose interest in farming, which is reflected in a

general lack of scholarly literature on the subject of postwar Indigenous farming. Some First Nations farmers were able to continue on-reserve farming in regions such as Peepeekisis (Poitras 2000) and others attempted to farm off-reserve (Tang 2003), but these remain relatively isolated examples. A key component of my research was learning from local First Nations in Central Saskatchewan about the extent of their farming/gardening and food production efforts during the second half of the twentieth century, and why it is not reflected in scholarly literature. The extent of more recent farming and gardening practices is acknowledged in Chapters four and six.

2.1.5 A revival in First Nations farming and food production? (2000s-present day)

According to the latest census data, over 1.6 million people of Aboriginal identity live in Canada, or 4.9% of the country's total population (Statistics Canada 2017). First Nations peoples are particularly numerous in Alberta (136,585), Saskatchewan (114,570), and Manitoba (130,510) and constitute a significant minority of the total provincial populations (Statistics Canada 2017). Canada's Indigenous populations are also growing, showing an 18% increase between 2006 and 2016 (Statistics Canada 2017). Following Treaty Land Entitlement (TLE) settlements, First Nations in Saskatchewan "may now hold 3-4 million acres of agricultural land on reserve" (from Pratt 2006). As the fastest-growing demographic in Canada, the issue of Indigenous peoples and their access to food is important.

While a significant literature exists about Indigenous farming practices and food systems in different parts of the world (Kuhnlein 2013), little is known about this sector for Indigenous peoples in the Canadian Prairies, especially First Nations. Published research exists on Métis farming practices in the Prairies (Chandler 2002), and indeed agriculture is seen as an important part of Metis identity and tradition (Ens 1996; Ray, Miller and Tough 2000). Yet, for First Nations, who are the focus of this research, little has been written about contemporary farming and food production practices in the region. Recently, research by Littlepine, Arcand and Natcher (2018) found that, a decade ago, nearly 80% of First Nations lands were farmed by non-Indigenous farmers, and that the "peak" of Indigenous farming in Saskatchewan was in the mid-1990s, with "150 wild rice farmers, 100 grain farmers and 250 ranchers" (from Pratt 2003; 2006). Farm scale was found to be generally large, ranging from 2560 up to 20 000 acres farmed. Of bands surveyed, "annual crops" made up more than half of production (73342.03 ac), with cattle grazing making up a quarter (37324.84 ac). Out of annual crops, wheat and canola each took a quarter portion, with the other half mostly divided evenly by other crops.

Today, anecdotal evidence exists of a possible resurgence of local First Nations' interest in farming and local food production practices, including a couple of prominent initiatives in Central Saskatchewan. The short documentary, *The Great Laws of Nature: Indigenous Organic Agriculture Documentary*, explores the links between traditional values and worldviews and modern farming practices in Muskoday First Nation, near Prince Albert, Saskatchewan. Here, farming was undertaken as a response to community food insecurity, to promote local economic development, and provide employment to youth, including those struggling with addictions, mental health or other social issues. The film also references Flying Dust First Nation, near Meadow Lake, which established their own farming operations and sales. According to their website, the Riverside Market Garden social enterprise started with two tilled acres in 2009 and grew to 27 acres under cultivation by 2013.⁷ Their mission is to “develop sustainable, self-reliant livelihoods while promoting the need for healthy lifestyles, nutritious food consumption and food sovereignty and security at the Band level” (Gladue 2018). Further insights into the food producing initiatives at Riverside Market Garden at Flying Dust First Nation can be found in Chapters four and six.

One Earth Farms was a recent example of a private organization that promoted First Nations farming, with 250,000 acres of First Nations land in Alberta and Saskatchewan leased out to foster co-operation between First Nations and business in agriculture (Magnan 2011). While the majority of farmers in Saskatchewan are not First Nations (Pratt 2003; Magnan 2011), the organization provided training programs for First Nations to run their own farming operations. One Earth used a larger-scale business model approach to spread risk more broadly with their First Nations partners. This approach intended to improve band revenues through economies of scale and prevent sudden changes in global food prices from drastically affecting local economic stability. However, One Earth farms ceased operations in Saskatchewan in 2015 and was not mentioned by research participants involved with my study. While the exact fate of One Earth farms in Saskatchewan falls outside of the scope of my study, it may have faced some of the barriers addressed in Chapter five – faced by other private organizations in the sector.

Not-for-profit organizations are also looking to support First Nations in their farming and food production strategies. The non-profit, *Canadian Feed the Children* has introduced programs to assist gardening efforts for schools and school lunch programs, with activities in Beardy's &

⁷ <http://www.flyingdust.net/fdb-holding-corp/riverside-market-garden/>

Okemasis, Ahtahkakoop, and Muskeg Lake Cree Nations in Saskatchewan.⁸ Their activities in Saskatchewan form a core component of this research, notably the Muskeg Lake “food forest” (*sakāw pimatan*) (section 4.2). Food Secure Canada is another organization that has developed a broader food security strategy for Canada, including specific reference to Indigenous communities and Indigenous food systems, their broader role in the Canadian food system context (Food Secure Canada 2015), and the “Understanding Our Food Systems” collaborative project in fourteen First Nations communities in Northern Ontario. In May 2019, they published a research report, “Sustainable consumption for all: Improving the accessibility of sustainably-produced foods in Canada”, which included calls for more “support for community gardens, community produce markets and farmers markets” (4). Other organizations have supported First Nations farming and food production initiatives in the past, such as Heiffer International, which supported the farming initiative in Muskoday First Nation, and the Saskatchewan Indian Agriculture Program (SIAP), which provided grants to First Nations farmers in the past (Enns, personal communication, 2018). The presence and role of these organizations in the sector is acknowledged in Chapters four, five and six.

Government and other public institutions also have an important role in supporting FNFFP initiatives today. Eric Sprott, the original financier of One Earth Farms, also sponsored the University of Saskatchewan’s post-graduate diploma in Aboriginal Agriculture and Agribusiness. Interview data will shed more light on government and public support – and hindrances – in Chapters four, five and six.

Indigenous organizations are also supporting First Nations farming and food production strategies. The Saskatchewan First Nations Economic Development Network (SFNEDN) has partnered with the Saskatchewan Co-operative Association (CSA) to facilitate the creation of various food-related co-ops in First Nations in Saskatchewan, including the Muskoday Workers’ Organic Co-op, Neechi Foods Co-operative, Ltd. and Amachewespimawin Co-operative Association. They used each of these cases to build a guide for other First Nations to begin their own co-operatives, including sample bylaws and business plans for their use (SFNEDN 2015).

These examples of supporting organizations demonstrate that current interest in farming exists among First Nation communities in Saskatchewan and other prairie provinces. A core aim of my study is to provide an exploration of First Nations farming and food production practices

⁸ <http://www.canadianfeedthechildren.ca/where/canada/>

in the Canadian Prairies, and Central Saskatchewan in particular, to better understand the factors that drive interest in such endeavours.

2.2: What drives First Nations' interest in farming and food production?

What are the key factors, concerns and issues that underpin and drive the possible resurgence in First Nations farming and food production in the Canadian Prairies? Are some factors more important than others in explaining if and why local First Nations view such practices as a viable and valued livelihood or community development activity? These questions inform Section 2 of the literature review. Six main areas are considered: self-determination; (re)-connection to land; food security and food sovereignty; environmental sustainability and adaptation; community health; and Indigenous economic development.

2.2.1 Pathways to self-determination: A rights-based approach

International statutes such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and national reports such as the Truth and Reconciliation Commission's Calls to Action (2016) outline the unique rights and sovereignty of Indigenous peoples. Articles 20 and 26 of the UNDRIP reference the areas of farming, food, territory and development, highlighting the rights of Indigenous peoples to traditional territories and those they occupy, and to use these lands for their own well-being, even if they are on occupied or settled land. Canada signed UNDRIP in 2016, which provides the country's Indigenous peoples, including those in the Prairies, with the platform to assert and affirm their interest in farming the lands within their territories, and under their own jurisdiction. Similarly, the Truth and Reconciliation Commission's Calls to Action (2016) point to the rights of Indigenous peoples over traditional territories and their use.

The UNDRIP Articles coincide with a moment in history in which Canada is recognizing the legal rights that Indigenous people hold over their own mobility and choice to participate in the global economy under their own volition (Corntassel and Bryce 2012).⁹ However, despite a contemporary context of supportive rhetoric and policy, are Indigenous communities in Canada

⁹ Legislative changes over the past half century have also been important. The Pass system (which limited mobility of Status Indians from a reserve) was repealed in 1951, the Permit system (which prevented the voluntary sale of Indian reserve produce) was repealed in 1990 (Tang 2003), and Article 32 of the Indian Act (which prevented the exchange of any outputs produced on a reserve to non-band members) was repealed in 2014 (Loney 2016).

in a position to move towards self-determined development, and what role might farming and local food systems play in achieving this?

As Mangan (2011) illustrates, most First Nations lands under cultivation in Saskatchewan are farmed by non-Indigenous farmers under lease agreements. With the repeal of restrictive Indian Act policies and commitment to UNDRIP and the TRC's Calls to Action, the Canadian state is re-opening space for Indigenous peoples to produce food on their own territory and sell it for their own benefit. Although companies such as One Earth Farms promoted the lease of Indigenous lands, they also aimed to train and engage First Nations peoples in farming techniques and practices (Mangan 2011). This offers First Nations farmers the opportunity to challenge historical perceptions that Indigenous peoples of the Prairies are "unfit" for the "tedious life of agriculture" (as asserted by Canadian historian George Stanley, cited in Dawson 2003), and allows First Nation communities to reassert sovereignty and control over traditional territories and an inalienable right to the land.

Adopting a rights-based approach to help understand First Nations interests in farming and food production extends to questions of intellectual property over traditional plants, seeds and crops (Kennelly 2012; Winter 2010). Though this broad literature tends to focus on issues as they pertain to local and Indigenous peoples in other parts of the world, Indigenous farmers in the Prairies also hold important knowledge about their food and from where it comes (Loney 2016; Miller 1989). This knowledge can be threatened because of the disruption of traditional food-ways caused by cross-contamination with other crops, changing climates, invasive species (Nabhan, 2008) and the bio-piracy of Indigenous plant and animal species (Awang 2000; Kennelly 2012). Corn is an example of an Indigenous crop that has been significantly bred and altered for Western food systems. Indigenous farmers in the Prairies can choose between the use of genetically modified or engineered seeds and crops, which is the case for many conventional, large-scale growers in the region (Mangan 2011), or more traditional crop varieties. But the example of corn highlights a potential dilemma: is it still an Indigenous food if the genetic changes are owned by a non-Indigenous company? Chapter four of my research explores some of the choices that First Nations are making in terms of the things they grow and produce, and how different seed and crop choices can assert (or perhaps undermine) Indigenous rights to plant species as part of their cultural integrity and heritage, enshrined in both Western and Indigenous law.

2.2.2 Pathways to self-determination: (Re)-connection to Land

When people self-identify as Indigenous, they often frame their identity in the context of a specific place. Indigenous peoples in the Canadian Prairies – whose territory we now occupy and share – are no exception. As Basso (1996), Cajete (2000) and Bastien and Kremer (2004) discuss, Indigenous law and relational ways of governing through the land demonstrate the importance and power of Land¹⁰ and its role in asserting sovereignty and the right to self-determination. Cree (*Nehiyawak*) peoples, who inhabit the prairies of Saskatchewan, link individual and collective wellbeing to their relationship with Land as their “Cree Law” or, *Wahkohtowin* (Skidmore et al., 2009). Sarah Carter (1990) notes that while some Indigenous peoples of the Plains seemed reluctant to farm in the past because of the harm caused by “turning Mother Earth upside-down” (Samek 1987, in Carter 1990), most of their angst towards farming came from adopting Western methods of farming that were rarely aligned with their own worldviews. Given the history of Indigenous farming during the time of Treaty-making, Chapter six discusses how First Nations’ notions of farming and food production, rather than being a product of Western imposition on an Indigenous landscape, may align with their own ways of seeing and knowing the world, as well as evolving relationships with the Land.

An extension to questions of Indigenous law and relationships with Land, is the concept of “place-based” learning and food systems. Leroy Little Bear in Cajete’s *Native Science* (2000) views place-based learning as the spatially-located observation of “patterns, cycles and happenings” of sacred aspects of plants, animals and cosmic movements (xi). This relationship is echoed by Herman Michell (2018) regarding Indigenous land-based education practices. Central to this are the relational and spiritual aspects that transcend Western objective perspectives of the Earth and its complex systems. *Living on the Land* (Kermoal, Altamirano-Jiménez, and Horn-Miller, eds. 2016) builds on this perspective to discuss Indigenous women’s relationships with Land, as women may play different yet crucial roles in First Nations food production systems. Klassen and Wittman (2017) suggest that a “place-based” food system goes beyond the concept of “local” to also reflect socio-ecological contexts and reconnect consumers to the food they eat, combatting social and ecological degradation by reducing the “distance” between producers and consumers in a social context. By referencing the work of Kermoal, Altamirano-Jiménez, and

¹⁰ I spell “Land” in this way to signify its active relationship and agency in Indigenous law and ways of knowing.

Horn-Miller (eds. 2016) and Escobar (2001), they argue that “places are multi-scalar and networked, actively constructed, and co-constituted through experience and relationships” (48).

This perspective suggests that First Nations farming practices have the potential to reimagine and reshape not only Indigenous relationships with Land and food systems, but also other social issues. Mason and Robidoux (2017), in *A Land Not Forgotten*, explore food-related initiatives in three communities in Northern Ontario that use the idea of ‘(re)connection to land’ to address multiple social issues in their community. Community members who were struggling with trauma and addiction issues were led out “on the land” for multi-day trips to (re)connect with the sacredness of their territory, learn how to live better from this connection and gain skills on collecting and cultivating food for themselves and others. This example focuses specifically on community gardens rather than larger-scale farming, but it demonstrates how food production activities can facilitate healing and growth in light of a history of trauma and removal from the land. These perspectives on relationships with Land come to light in section 4.2.2 regarding land-based education, and in further discussion in Chapter six.

The above issues provide an additional set of insights that might help explain whether farming and/or gardening – which has powerful colonial connotations for First Nations in the Prairies – can be a transformative force that counteracts the narrative of removal and dispossession to (re)assert an Indigenous connection to Land and promote territorial sovereignty through the growing of food.

2.2.3 Food security and food sovereignty approaches

A significant proportion of the literature on local and Indigenous farming revolves around issues of food security and food sovereignty (Desmarais and Wittman 2014; Wiebe et al. 2011). When signing Treaty 6, Chief John Smith stated: “We want a reaper and implements¹¹... I have no more to say – what I want is implements to work my farm.” (Funk and Lobe, eds. 1991, 6). Chief Smith’s sentiments were echoed by many First Nations across the Prairies, who were gravely concerned for the decline of the bison herds or “Buffalo” that shaped their socio-cultural and food systems (Bryan 1991) and were turning to farming to avoid famine and starvation (Bateman 1996; Buckley 1992; Carter 1992; Tang 2003). One of the reasons why Indigenous Chiefs signed Treaty 6 was the promise of farming implements to assist with producing food for

¹¹ A reaper is a tool for harvesting grain. Implements are synonymous with tools for farming.

their people. Food security played a major role in the Treaty negotiations of the past. But how does food security (and by extension food sovereignty) function as a driver of First Nations farming practices in the Prairies today?

Raj Patel (2009) looks at the origins of the food security concept through an analysis of organizations such as La Via Campesina and the Food and Agriculture Organization (FAO), as well as how definitions of food sovereignty have changed. For my research, I understand food security as having consistent access to enough safe, nutritious and culturally appropriate food (Food Secure Canada 2015) that does not hinder future generations from the same level of access. This is a definition that combines conventional ideas of food security with those related to sustainability (Edwards 2005; Sachs 2015). La Via Campesina builds on the food security concept to promote food sovereignty, which it defines as access to “healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and the right to define their own food and agriculture systems” (Food Secure Canada 2015, 9). A goal of my work was to understand how well scholarly understandings of food security and food sovereignty resonate with local First Nations in Central Saskatchewan, and how they interpret and operationalize these concepts – which is discussed in section 5.3 and Chapter six.

Social and environmental justice is a strong focus within the literature on food security and food sovereignty. Desmarais and Wittman (2014) offer a comprehensive analysis of different farming ideologies and practices across Canada and delve into the complex relationships that farmers develop with each other, with consumers, with corporations and with Indigenous peoples. Along with Loney (2016), they highlight the disparity between Canada’s Indigenous peoples and non-Indigenous peoples in terms of both safe and predictable access to healthy food, but particularly the role they play in producing the food that they themselves consume. They recommend the need for society to change its food attitude. Loney (2016) suggests moving away from reliance on petroleum, Foreign Temporary Workers (FTWs) and a profit-driven food system. Desmarais and Wittman (2014) suggest a shift from a commodities-based concept to one that views food as *sacred* – which falls in line with how many Indigenous cultures traditionally understand their relationship to food. To create this shift in perspective, they press for political action geared towards poverty reduction and local food production.

A goal of my research was to uncover how historical experiences shape contemporary Indigenous perspectives on farming. Rudolph and McLachlan (2013) discuss the historical

implications of colonialism, its relationship to development in Northern Manitoba today, and how colonialism manifests in contemporary food system crises. By doing so, they show how past policies have directly impacted current food security issues at a community level, and how responses to this can counteract or oppose colonial ideology and practice. Despite the political challenges, potential bridges exist between Indigenous and non-Indigenous food producers and consumers are captured within *A People's Food Policy for Canada* (Food Secure Canada 2013) and the subsequent national Food Policy for Canada (Government of Canada 2019). Food Secure Canada, and subsequent federal policy, provides a holistic account of what Canadians – including Indigenous peoples in Canada – want their food to be: healthy, affordable, accessible, reliable and more. These provide the starting point for understanding food security and food sovereignty at the national level, while paying careful attention to ensure that food security initiatives clearly match often diverse and divergent community and regional needs.

Grey and Patel (2015) take the social justice aspect further by suggesting food sovereignty is an extension of anti-colonial activism. They argue that food sovereignty stems from similar veins of decolonization movements; acting in resistance to the hegemonic imposition of capitalism and globalization and promoting greater local autonomy and respect for the environment. This approach also resonates with the concept of (re)-connecting with the land and shows how food sovereignty is inherently linked to self-determination. While an Indigenous community may or may not associate food sovereignty with decolonizing activities, Grey and Patel (2015) argue that it remains a potential avenue by which the two can be brought together. Gahman (2017) provides a more radical perspective on the potential of farming to help communities resist neoliberalism and the destruction of Indigenous identity. Taking inspiration from the Zapatista movement in southern Mexico, he suggests neoliberalism can be rejected through the creation of local food systems that upend colonial power structures and foster greater gender equality. This radical, anti-capitalist perspective contrasts with some other economic development strategies identified in Chapter five in this research.

2.2.4: Environmental sustainability and adaptation

Other factors that may drive the resurgence in farming or food production may arise from the interconnections between human and ecological systems. For example, climate change can directly affect the role that traditional foods play in Indigenous food systems (Saxena 2016; Loring and Gerlach 2009). These examples suggest how First Nations farmers and food

producers in the Prairies will also have to consider their choice of crops when adapting to a changing climate, which may necessitate negotiation between traditional and non-traditional varieties, balance between traditional foods and more affordable food brought into the community to address immediate food insecurity and emphasize space and respect for Indigenous voices and perspectives in shaping their food systems (Kuhnlein 2013, 2015). This resonates with the work of Mullinix (2015), which connects the historical marginalization of Indigenous peoples in Canada to the contemporary issues that they face, but does so through the lens of “deep sustainability” and an interdependence between our own health and well-being and that of Creator and all creations.

2.2.5 Community health approaches

Community health may be another important driver behind interest in farming and food production today. The Good Food Planning Tool (Brimblecombe et al. 2015) is an example of a community health model from Australia that looks to links between multiple factors (income, health, infrastructure, social wellbeing, etc.) that contribute to a stable food system with greater food security. The Expert Panel on the State of Knowledge of Food Security in Northern Canada (Council of Canadian Academies 2014) produced a comprehensive document outlining food security and food sovereignty issues in the North, which offers a useful comparison of food and health issues in the context of the Prairies. One striking statistic was that more than two-thirds of Inuit people suffered from moderate to severe food insecurity between 2007-2008, compared to under eight percent of the Canadian population. Food and health are very closely linked, and according to the Public Health Agency of Canada’s 2011 report on Diabetes in Canada, on-reserve First Nations had a diabetes rate of 17.2 percent – three times higher than that of the non-Indigenous population, and with younger ages of diagnoses. In Saskatchewan, one in ten people have diabetes, but Indigenous peoples are 3-5 times more likely to contract it than the province’s non-Indigenous population (CBC 2017). Scholars attribute these health crises to poor nutrition and low food security, declines in the gathering of subsistence foods and increases in the consumption of “imported” foods with low nutritional value (Ready 2016; Harder and Wenzel 2012; Loring and Gerlach 2009; Council of Canadian Academies 2014). Chapter four addresses how health plays a significant role in driving Indigenous interest in farming and food production.

2.2.6 Indigenous economic development

Finally, interest in Indigenous farming and food production may be driven by its potential to contribute to community economic development (Anderson, Dana and Dana, 2006). Grand Chief Sheila North Wilson of Manitoba Keewatinowi Okimakanak (MKO) provides the preface for Shawn Loney's *An Army of Problem Solvers* (2016). In it, she states that her "people are ready" to assert their own economic rights, despite years of what Loney refers to as "taking the Indian out of the economy" by the Federal government (xiv). Despite centuries of colonialism, Indigenous peoples are interested and ready to engage in the global economy (Anderson, Dana and Dana 2006; Gibson-Graham 2008) but to do so on their own terms (Peredo et al. 2004). However, significant barriers – addressed in Chapter five – remain. Although Canada is a signatory to the UNDRIP, which supports self-determined economies for Indigenous peoples to benefit from their biological and cultural heritage, attempts at endogenous economic development can be hampered by inappropriate, top-down Federal policies that do not recognize the economic potential of Indigenous communities. The Indian Act, which imposed Federal restrictions on First Nations peoples, is still in place today. My research aims to understand if and how First Nations in Central Saskatchewan are finding ways to work around such barriers to foster economic development.

Other economic development challenges inform how farming and food production may be structured in a particular region. Farming in Canada, including the Prairies, has been trending towards greater capitalist penetration (Desmarais et al. 2017), with large and powerful multinational companies gaining monopolistic control of various stages of the food system. At the same time, many farming enterprises are owned and operated by individual families (Magnan 2011). Indigenous peoples are interested in forms of economic development that give them greater control over their biocultural heritage and associated resources (Davidson-Hunt, Idrobo and Turner 2017; Pengelly and Davidson-Hunt 2012). However, engaging in a globalized economy means joining larger, overarching "privatized, individualized, commoditized socio-economic systems" (Berkes and Davidson-Hunt 2007, 214), which can entail enhancing international market access while tailoring economic activities to meet local needs and interests. Alternatively, Indigenous communities may choose to reject engagement with neoliberal global markets and carve out their own economic development strategies as resistance to the broader capitalist economy (Fenelon and Hall 2008). An important part of my research is to identify

avenues for FNFFP initiatives to carve out a niche within the broader Canadian and global market economies, and reduce dependency and increase self-sufficiency, discussed in Chapter 6.

Economic development in Indigenous communities can also extend beyond generating profit for individuals in the community, and adhere to non-capitalist drivers such as self-determination, social programs and more (Anderson, Dana and Dana 2006; Davidson-Hunt and Berkes, eds. 2010; Davidson-Hunt and Turner 2012; Wuttunee 1992; 2004). The Harvard Project on American Indian Economic Development (2015) suggests that four aspects matter for economic and social development to succeed in Indigenous communities: sovereignty, institutions, culture and leadership. Indigenous communities need to be able to make their own decisions about how best to develop, backed by stable institutions that govern fairly and with due process. Their economies and institutions must also be “legitimate and culturally-grounded”, with recognition that each society has unique histories and customs. Lastly, dynamic leadership is needed to bring in new ideas and propose change in their community. Such an approach contrasts markedly with more exploitative economic development approaches that use Indigenous peoples, their lands and their knowledge for private non-Indigenous benefit (Houde 2007; Watson 2013). This contrast is discussed in Chapter six and addresses the complex role of private organizations towards supporting future sector growth.

Furthermore, economic development can be integrated into connections to land, collectivities, and place through the idea of social enterprise, innovation, and entrepreneurship (Anderson, Dana and Dana 2006). The final section of the literature review explores these themes, reflecting upon the role they might play in shaping current and future First Nations initiatives around farming and food production in the Canadian Prairies.

2.3: Innovation, entrepreneurship and Indigenous community development

2.3.1 Innovations in Indigenous food-ways

Indigenous communities are interested in exploring how they can use their biological and cultural heritage to foster sustainable rural development (Davidson-Hunt, Idrobo and Turner 2017; Pengelly and Davidson-Hunt 2012). Food systems and food production are just one avenue by which communities can look to benefit from their biological and cultural heritage. The conceptual and methodological approach of ‘Biocultural Design’ was developed by Davidson-Hunt and colleagues (Davidson-Hunt et al. 2012, 2017) to support contemporary endogenous

development among Indigenous and other rural, resource-dependent communities, and to do so through the co-creation of innovative products or services to address current development aspirations or challenges. This approach also aims to identify and strategically engage with economic opportunities that “both reflect cultural values and use biocultural heritage in new ways” (39). Innovations in the context of Indigenous and other local communities result from a diverse mix of traditional knowledge and facets of everyday life (Dutfield 2014) with new ideas to address emerging opportunities and complex problems. In biocultural design, these everyday interactions and new ideas use cultural and ecological relationships to foster innovative, or entrepreneurial thinking.

For First Nations to develop their food systems in ways that promote self-determination and food sovereignty, innovations may extend to creating new forms of enterprise or allowing spaces for entrepreneurship to flourish (Anderson, Dana and Dana, 2006; Davidson-Hunt and Berkes, eds. 2010; Pengelly and Davidson-Hunt 2012). Innovation can enable Indigenous peoples to bring together traditional knowledge, such as food crops and harvesting rituals/stories, with new ideas and technologies (Dutfield 2014) to respond to current and perceived future issues. For example, re-learning traditional rice harvesting practices as part of an economic development strategy brought Elders and youth together to help continue traditional farming activities and generate much needed income in Wabaseemoong Independent Nations in Northern Ontario (Gendron, Hancherow and Norton 2016; Kuzivanova and McDonald 2015). In this case, traditional food-based resource practices were reinvigorated by reconnecting local people to their cultural heritage along with an innovative plan to apply traditional foods towards cultural and economic development.

An important part of my research involved connecting with the “Champions” of FNFFP in Central Saskatchewan to find out the role that innovation, enterprise and entrepreneurial thinking is playing and could play in helping local First Nations build sustainable food systems for community wellbeing and development. In this research, Champions are Indigenous and non-Indigenous individuals, and their affiliated supporting organizations, who spearhead FNFFP initiatives in a First Nations context. In addition to the role of Champions, the “food forest” case of Muskeg Lake Cree Nation provided an opportunity to observe and participate in a nascent biocultural design process underway in one particular First Nation in the study region.

2.3.2 Social Innovation

While more work has been done on technical or design innovations in an Indigenous context – such as those mentioned above – less has been written about social innovation (Cajaiba-Santana 2014) and its role in rural development (Neumeier 2012). For these authors, technical or economic innovation is often focused on “material and product” or “marketing and organisational” innovation, whereas social innovation can take various forms, including two sociological interpretations: first, where they are “seen as societal achievements that change the direction of social change” (Ogburn 1964; Zapf 1989; Gillwald 2000; Adams and Hess 2008; Pol and Ville 2009 (in Neumeier 2012, 53)). Second, they are seen “as the generation and implementation of new ideas about how people should organise ... to meet common goals ... based on the already existing know-how and experiences of the group involved” (Mumford 2000; Moulaert et al. 2005 (in Neumeier 2012, 53)). Building upon these definitions, Neumeier (2012) defines social innovation as, “changes of attitudes, behaviour or perceptions of a group of people joined in a network of aligned interests that ... lead to new and improved ways of collaborative action within and beyond the group” (55). This is visualized in Figure 2.2 below:

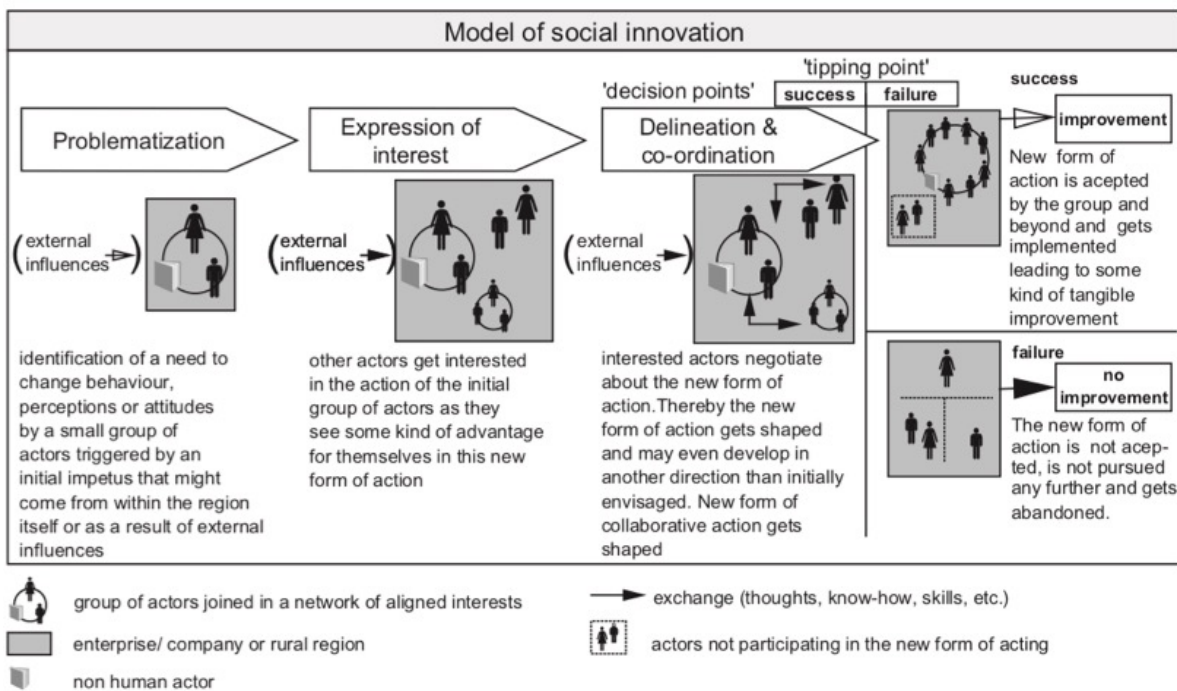


Figure 2.2: Neumeier’s model of social innovation process (adapted from Neumeier 2012, 57, fig. 1)

Although this model was created for a European social context, it may present a guide to better understanding if and how ‘social innovation’ is unfolding within the contemporary FNFFP sector in Central Saskatchewan, and how Champions may form a group in a “network of aligned interests” in the sector. With this research, I consider if what is happening in the sector today could be considered a “social” innovation for its “newness and ... inherent purposeful actions oriented towards a desired result” (Cajaiba-Santana 2014, 44). And while innovation can be linked to entrepreneurship and enterprise, it can also emerge from several different sources or drivers, including social movements, charismatic individuals and “change-oriented capacity building” (Howaldt and Schwarz 2010, 32, in Cajaiba-Santana 2014). In this sense, forms of Indigenous activism within the sector, including Champions who are engaged in farming and food production initiatives and/or capacity-building activities, may in and of themselves be indicators of social innovation.

As such, identifying Champions, First Nations communities and their respective FNFFP initiatives was an important identifier of what social innovation – if any – is taking place in the region’s food system. Furthermore, identifying what lies behind these forms of social innovation can help support the claim that such innovations are typically sourced from multiple drivers, beyond those of entrepreneurship and enterprise. My research considers what social innovation in an Indigenous context looks like (see section 6.2).

2.3.3 Social enterprise and entrepreneurship

Anderson, Dana and Dana (2006) suggest that Indigenous peoples can engage in global capitalism in the form of “alliances” that, in a post-Fordist economy, emphasize value based on sustainability, reciprocity and respect. Similarly, innovations in business, technology and economics can shift focus from activities that prioritizes higher-wealth individuals to ones that encourage equity through alternative development (Heeks, Foster and Nugroho 2014). These alternatives may manifest in Indigenous social enterprises and social entrepreneurship (Peredo et al. 2004). Loney (2016) defines social enterprise as a non-profit business venture that uses a marketplace to exchange goods and services oriented to address social and environmental problems (10). Others, however, argue that social enterprises can still function using a for-profit model, and this can help to ensure that an enterprise is able to sustain itself over time (Berkes and Davidson Hunt 2007). An area of interest for this research was to see how FNFFP initiatives

might be engaging with both capitalist and alternative forms of enterprise and entrepreneurship, and I discuss this further in Chapter six.

A relevant example of a community social enterprise is the Aroland First Nation in Ontario, which began a youth-based initiative harvesting blueberries as a “forest-food”. Similar to wild rice harvesting in Wabaseemoong Independent Nations (Kuzivanova and McDonald 2015; Kuzivanova and Davidson-Hunt 2017), it provided revenue for the First Nation through sale of a high-demand food product, while (re)-connecting youth to the land and traditional foods, and increasing awareness of nutritious food sources and built connections between community members and various government, non-government and community organizations (Sustain Ontario 2013). Another example is Meechim Inc. in Garden Hill First Nation, Manitoba (Loney 2016). In response to expensive and limited food from the Northern Store, Indigenous peoples began their own gardening business to provide more affordable, nutritious, locally grown produce for their community, which also provides skills and revenues to the community. This program appears similar to the farming enterprises in Muskoday First Nation and Flying Dust First Nation (Erenberg 2013), and the emergent food forest initiative in Muskeg Lake Cree Nation, all located in the study region of Central Saskatchewan.

Although these models are based upon private or capitalist operating frameworks, they can transform concepts of ownership and revenue to the community level, with communally-shared benefits and assets. This form of social capitalism can lie somewhere between total isolation and self-sufficiency, and what Wilson (2012) refers to as “interconnected dependency” on global capitalist markets. Youth, skills and resources are thus retained within the community, and encourage further investment into the community (Davidson-Hunt and Berkes, eds. 2010), rather than extracted out. Using such an approach, a community is arguably better placed to maintain endogenous power and still engage with the global economy. My research identifies some of the different types of organizational models that First Nations are using (or have considered using) to structure their farming or food production activities. Chapter six offers further discussion as to whether for- or non-profit models impact the scale at which they can operate or commercialize (Davidson-Hunt and Berkes, eds. 2010; Pengelly and Davidson-Hunt, 2012) and consolidate risk and capital (Loney 2016), while also building community ties and cohesion.

2.3.4 Indigenous community development

Historical development approaches in Canada have been top-down in nature, with development goals and outcomes guided by the colonial ambitions of the Canadian state (Verbos, Henry and Peredo 2017). First Nation communities in the Canadian Prairies have experienced significant trauma through the Residential School Programs (TRC 2016) and, related to farming, through unmet Treaty obligations to support on-reserve farming (Buckley 1992; Carter 1990, 1991; Tang 2003). Despite such disruptions and trauma, First Nations today have been adaptive in response to the challenges they face. They looked to eschew the framing of being “vulnerable”, which perpetuated an “identity of disempowerment, victimization and dependency” (Haalboom and Natcher 2011, 323). Instead, they work to promote their own development needs, goals and strategies that can reduce disempowerment and dependency.

In my research, I adopted a more assets-oriented or “solutions-oriented” (Loney 2016) approach to researching how Indigenous communities are using farming and food production to respond to actual and potential challenges in the sector. I want to show how First Nations in the Canadian Prairies have shifted from situations of relative dependency toward ones of relative self-sufficiency (or the promise of) over time. In this way, food and food systems become something of a barometer of change and adaptation. Looking at the history of Indigenous farming practices in the Prairies, First Nations peoples took up and then abandoned farming in response to environmental change (with the Little Ice Age, later the loss of bison herds) and social and political upheaval (colonization, the Reserve system, the Indian Act, etc.). Today, First Nations communities confront new environmental challenges such as climate change, and new opportunities around the reassertion of sovereignty after centuries of colonial oppression. Building their own food systems may be one small way of helping them do this.

2.4 Chapter summary

Despite a tumultuous history with farming post-contact, the published literature suggests that First Nations communities in the Canadian Prairies may be experiencing a renewed interest in the farming and food production sector. However, little is known about the scope, characteristics and trajectory of this sector. Historical data provides insights into past Indigenous farming practices and struggles, but further archival research and work with Elders is needed to understand how the FNFFP sector has evolved during much of the twentieth century in

particular. With regards to the contemporary FNFFP sector, the abundant literature on food security and food sovereignty says little about what drives Indigenous farming practices today in the Prairies region, and much less Central Saskatchewan. Self-determination is one possible driver for change, with food offering possibilities to enhance First Nations' (re)-connection to Land, adaptation in the face of environmental change, improving community health and economic development. I committed to research that would make an important contribution to enhancing our understanding of contemporary FNFFP practices and initiatives in Central Saskatchewan, and exploring the areas for future growth.

CHAPTER THREE: RESEARCH DESIGN

This chapter outlines my research standpoint, chosen approach and methods, a timeline of activities, research limitations, approach to data analysis and knowledge mobilization (to date).

3.1 Researcher standpoint

I was born and raised in Alberta, in Treaty 6 and Treaty 7 territories, in the cities of Edmonton and Calgary respectively. My parents and grandparents are from Saskatchewan, with roots as settler farmers. Both Alberta and Saskatchewan share a history of farming; the legacy of the Canadian vision of a settled, agriculturally productive West to feed the industrializing economies of the East (Carter, 1990; Poitras, 2000). Although I spent my entire life in cities, the influence and significance of Prairie agriculture was never far away.

While I am a product of the hard work of my farming ancestors, this was only made possible because of the displacement of Indigenous peoples, through colonial programs and mandates of the Canadian government. Despite Canada's colonial project, Indigenous peoples have endured, and shown remarkable resilience to the disruptions they have experienced. I am not an Indigenous person. But I do have roots in the farming of the past, and I think this gives me a useful stance as an outsider collaborating with Indigenous peoples and farmers alike; I have a sense of both, but I am a part of neither.

I have previous research experience with Indigenous peoples in Canada through my undergraduate studies at the University of Calgary and a month-long anthropology field school to Yukon and Southeast Alaska with most of that time spent with Indigenous peoples learning about their work towards self-governance, food security and (re)vitalizing Indigenous ways of knowing and doing. I also completed a two-month research project with Tsuut'ina First Nation and the City of Calgary to understand their relationship, and how that contributed to sustainable waste management. I have also participated in several Indigenous workshops and events, including the Aboriginal Relations Leadership Training Program at the University of Calgary. These prior experiences have helped to improve my respect for protocol and where to position myself as an ally, standing alongside Indigenous peoples and ensuring their voices are heard.

3.2 Research approach

The research was qualitative in its approach and pragmatic in its intent. As well as generating scholarly knowledge, the project applied and looked to develop outcomes and

products that would benefit local First Nations communities and the organizations that support them (see Creswell and Poth 2018). The design was intended to “unshackle from the constraints... that limit self-development and self-determination”, as well as be collaborative in nature, such that participants co-create knowledge with the help of the researcher (25). One example of co-creation was, with the help of Glenna Cayen from Canadian Feed the Children, facilitating a poster drawing activity with youth at Muskeg Lake. I did not claim to be “decolonizing”, but I worked hard to highlight the experiences and voices of Indigenous participants and found ways to translate and share findings in a way that was useful and accessible to both participants and community members who were directly or indirectly impacted by this research. Knowledge mobilization included the presenting of preliminary research findings to the Food Security Committee at Muskeg Lake Cree Nation, followed by – following their advice – a scavenger hunt activity at their culture camp in August 2019. I aimed to facilitate collaborative, accountable outcomes, given the complex interacting systems and discourses found when working with Indigenous peoples.

3.2.1 Case study design

My study employed two types of case study as its strategy of inquiry:

- (i) First, an instrumental, exploratory case study of Champions of First Nations farming or food production (FNFFP) in Central Saskatchewan, which is mostly Treaty 6 territory (Figure 3.1). The rationale behind selecting individuals and organizations as Champions is that they have initiated a resurgence in farming or food production in the place where they live or work, or are actively interested in doing this presently, and thus were best placed to share with me their knowledge about how significant this emergent sector may be, as well its particular characteristics. Table 5.2 in Chapter 5 lists the Champions interviewed who provided insights as to the current scope and drivers of, and barriers to, FNFFP initiatives. They helped me to understand the main drivers behind FN farming and food production initiatives and how they innovated – or are innovating now – to get initiatives off the ground or become successful in the places where they work. A portion of this work was guided by the methodology that Hayes, Robson, and Davidson-Hunt (2017) employed in their Biocultural Innovation Scan of the small-scale food sector for the Central Saskatchewan region (see also

Davidson-Hunt et al. 2012). This case contributed essential data to meet Objectives 2 and 3, as well as supplementary data to Objective 1.

- (ii) Second, an intrinsic community case study of Muskeg Lake Cree Nation (MLCN) and specifically its nascent *sakāw pimatan* or food forest initiative. MLCN is located about 100km North of Saskatoon, Saskatchewan, and is the main rural portion of the First Nation's reserve lands. They are a relatively small First Nation, with only 367 members living on reserve, and the rest of the 1848 band members live around the world (MLCN 2018). Despite their small size, they were the first First Nation in Canada to establish an urban reserve, located in the neighbourhood of Sutherland in Saskatoon, and have expressed great interest and ingenuity in providing for their people in a "progressive" way that connects to their Cree culture and heritage (MLCN 2018). Here, I acted as an observer, participant and contributor to their community-driven initiative, working closely with Canadian Feed the Children (CFTC) and the Muskeg Lake Food Security Committee. Observation included attending Treaty Day, the Elders' Council and Food Security Committee meetings. Participation and contributions included attending the food forest tree planting day, the annual Family Literacy Camp in both 2018 and 2019, a seed saving workshop held by Glenda Abbott and assisting MLCN resident and CFTC program coordinator Glenna Cayen with various activities. One such activity included a poster-drawing session and smoothie night with youth to provide their input for future phases of the food forest. I also interviewed an Elder in the community to provide historical context to growing food in Muskeg Lake and in the region. This case offered direct insights into the perspectives of community members with regards to FNFFP as well as the drivers, challenges, and innovations associated with the food forest design and piloting processes. This case provided data for Objectives 1, 2 and 3.

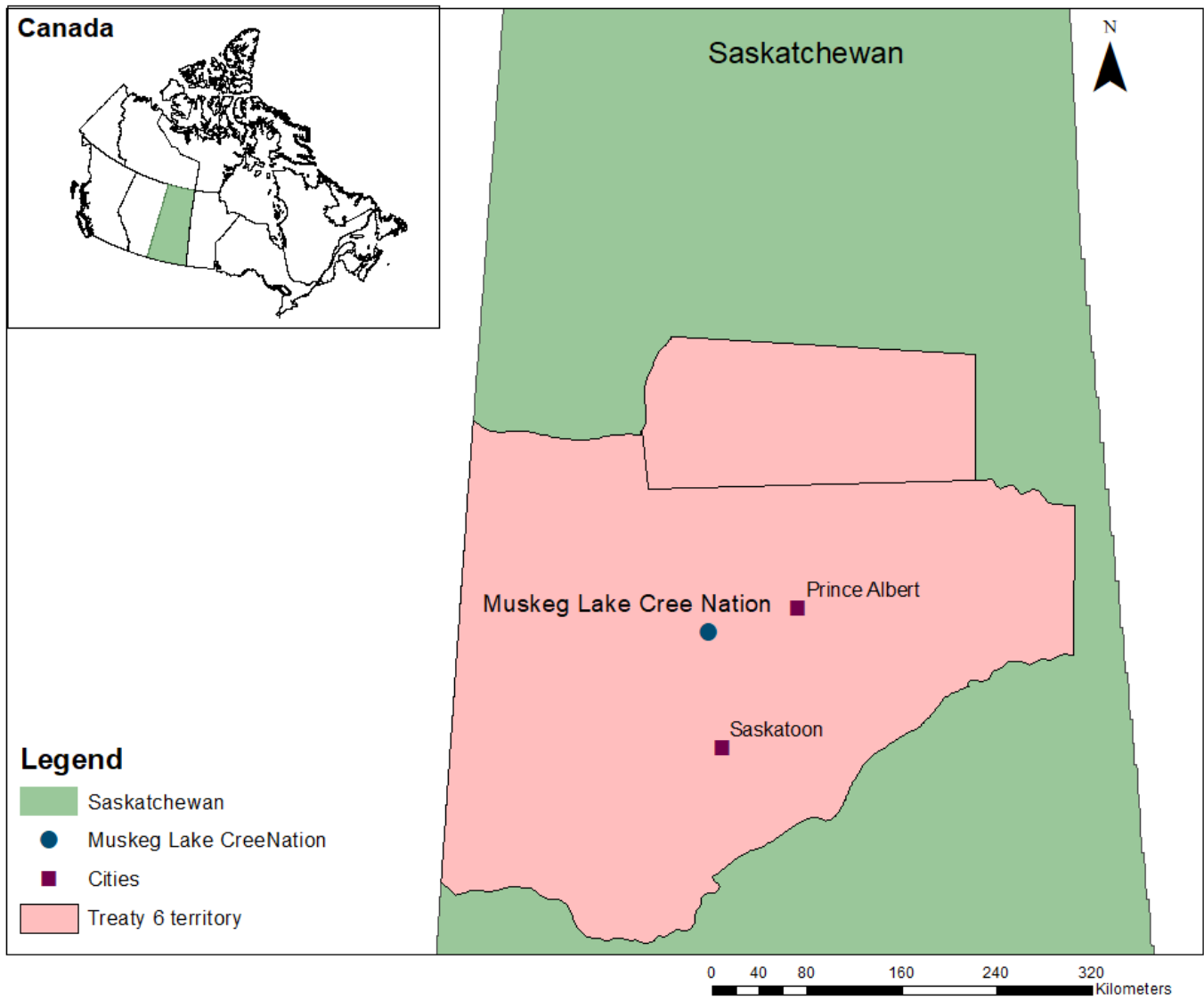


Figure 3.1: Location of study region and study site (Central Saskatchewan, Canada)

Adopting a case study approach allowed me to explore views and perspectives of First Nations farming at multiple levels (both within-case and cross-case analysis), and to bound the research objectives in such a way as to make them relevant and applicable to academic, practitioner and Indigenous audiences (such as CFTC and Muskeg Lake Cree Nation) (Creswell and Poth 2018). The case study of Champions allowed me to explore and identify the scope of interest and initiatives in First Nations farming and food production in Central Saskatchewan. The intrinsic case study of Muskeg Lake Cree Nation allowed me to explore in detail a specific food production initiative, the food forest, as a novel, innovative First Nations initiative in the study region (Stake 1995; Creswell and Poth 2018). Through these two cases, I was also in a position to consider both present FNFFP activities and interests, as well as those from the recent past (second half of the twentieth century). These case studies produced data to help me understand how broad themes may play out at Muskeg Lake's food forest, as well as provide a more nuanced perspective based on insights from individual and organizational Champions.

3.2.2 Data collection methods

Table 3.1 below outlines the methods, sources of data, and guiding questions for each of the three research objectives. The use of participant observation was conditional in the sense that it was shaped by the priorities of the people and communities that participated in the research. Data on current interests in farming and food production/processing were collected through thirteen semi-structured interviews with First Nations farming, gardening and food production Champions working in Central Saskatchewan, as well as during the Champions Workshop on March 11, 2019. Data were also collected through observing and participating in events and meetings held at Muskeg Lake Cree Nation. A timeline of data collection points can be found in Appendix A.

Table 3.1: Objectives, Methods, Key Sources and Guiding themes or questions

Objectives	Data Collection Methods	Key Sources / Events	Guiding themes or questions
Document and explore the recent history of First Nations farming practices and food production in the study region	Literature Research Document Review Semi-structured interviews (Elders)	University of Saskatchewan Library, Special Collections and Archives; Historical documents Central Sask. FN communities; Oral history Personal experience	What kind of farming and food production practices did First Nations people engage with in the study region? How extensive or sporadic were these experiences? How do these relate to things happening today? What traditional knowledge exists around farming in local FNs, and how can this knowledge support First Nations farming and food production today? To what extent is farming a colonizing or decolonizing practice? Has it changed over time? If so, how? Is there a relationship between farming now and farming in the past? What roles did the Residential School system play?
Investigate contemporary interest and activities in farming and food production among local First Nations	Semi-structured interviews Participant observation	MLCN community members Band Committees Community events Champions Individual Champions Supporting Organizations Forum on Indigenous Agriculture	Why is Central Saskatchewan a site of emerging First Nations farming and food production practices? What roles do the various levels of government play in this emergent sector and how do they interact? What roles do private businesses and corporations play? Non-government organizations? Grassroots organizations? What is driving FN farming and food production initiatives today? What are the challenges that First Nations face regarding food, food production, and food systems? What are the main enabling factors? What are the main hindering factors? Do FN perspectives on food and food systems vary according to age and gender?
Explore ideas for innovation and growth in this sector	Semi-structured interviews Workshop with regional Champions	Champions Individual Champions Supporting Organizations Forum on Indigenous Agriculture MLCN food forest	What are some of the interrelationships between First Nations and biological materials? How are First Nations responding to specific opportunities or challenges that they face with regards farming and food production? Is “local” food important? How can First Nations (i.e. Muskeg Lake) create and maintain a sustainable food initiative? Are traditional crops and ingredients important to this? What is needed at various scales (local to national) to support First Nations in farming and food production? How are initiatives being marketed? What are some innovations that bring traditional heritage into present and future food-related issues? How do First Nations communities engage in these issues?

3.2.2.1 Objective 1: History of FNFFP

Historical literature and document review

Historical data was collected using literature research, document review, and semi-structured interviews with Elders and other community members who hold knowledge of local Indigenous farming and other food production practices. While some literature exists on Indigenous farming practices in the past, very little of this information comes from Indigenous voices. *And They Told Us Their Stories* (Funk and Lobe, eds. 1991) is a compilation of personal stories and documents describing farming conditions in the region and relations with settler peoples and officials. This is an example of written literature by Indigenous peoples recounting their lived experiences of farming and various policies that altered farming and their ways of life. Before conducting this research, I reviewed a significant amount of academic literature regarding the history of First Nations farming in the Canadian Prairies. To supplement this academic documentation, I carried out limited literature research of other written documents at the University of Saskatchewan Library's Special Collections and Archives. Here, I specifically focused on the history of farming and food production among Treaty 6 First Nations, including those in Central Saskatchewan. Such literature research and document review provided some insight into the history of the sector for the research. Documents reviewed included the Saskatchewan Indian Agriculture Program (SIAP) proposal by Alex Kennedy (1973) and reflections on historical FNFFP in Saskatchewan (Buckley 1971; S. Gamble 1992) and the broader Prairie region (Dempsey 1983). These documents also highlighted issues that would inform questions asked in subsequent interviews (Bowen 2009).

Semi-structured interviews (Elders)

As the population ages, many of the people who have first-hand experiences producing food (early- to mid-twentieth century) in their communities are passing away. Thus, bringing their voices and perspectives into the research provided an important opportunity to make some of that knowledge available to future generations. In addition to gathering oral knowledge and stories from Elders, other knowledge keepers provided important place-specific insights that are not found in the written literature, especially in the case of Central Saskatchewan. Such insights were useful for affirming or refuting information I gathered elsewhere. I conducted one Elder interview in Muskeg Lake Cree Nation with Deanna Greyeyes who sadly passed away shortly after our meeting. At the recommendation of other Champions, I also spoke with two retired

farmers who are also considered Elders in their own communities of Ahtahkakoop and Muskoday First Nations. Within the Elder interview guide (Appendix B), I included questions regarding their knowledge around the history of farming or growing food in their community. Some of the other Champions interviewed for this research also provided additional historical insights by reflecting on their own upbringing and experiences with farming and growing food.

Semi-structured interviews (Champions)

The semi-structured interviews generated data that were used for all three objectives, but in particular Objective 2. This format provided enough guidance to inform the specific topic of research while enabling flexibility for participants to express ideas or sentiments that contributed to a broader context for the research (Corbin and Strauss 2015). Before conducting my research, I had already identified several individual and organizational Champions in the region with histories, current initiatives and/or interests in the sector (see Table 2). I had initial, informal chats with some, and invited all to participate in the research. I then used a snowball sampling technique to ask this initial group of participants to recommend other Champions they thought I should speak to. The complete list of Champions interviewed can be found in section 5.3.

Table 3.2: Preliminary Champions of First Nations food systems in Central Saskatchewan

Name	Title/Organization	Affiliated First Nations/Orgs.
Len Sawatsky	Former Manager, Riverside Market Garden	Flying Dust First Nation
Frank Tecklenburg	Operations manager, EarthConnections Garden Centre	Ahtahkakoop Cree Nation
Joe Munroe	Formerly with Heifer International	Muskoday First Nation
Burton Ahenakew	Farmer, Ahtahkakoop	Ahtahkakoop Cree Nation
Harry & Germaine Lafond	Councillor and Elders, MLCN	Muskeg Lake Cree Nation
Alfred Gamble	Lands Manager, Muskeg Lake Cree Nation	Beardy’s and Okemasis Cree Nation
Gordon Enns	Executive Director at Saskatoon Food Council. Former Director, Heifer International	Muskoday First Nation
Glenna Cayen	Canadian Feed the Children	Ahtahkakoop, Beardy’s and Okemasis, Muskeg Lake Cree Nations

Semi- structured interviews with the Champions were used to explore contemporary interest in FNFFP and associated initiatives, including challenges to implementation and growth. These individuals provided first-hand accounts of their experiences and resulting learning

outcomes tied to involvement in the FNFFP sector. The interview guide for Champions can be found in Appendix C. In Muskeg Lake Cree Nation, semi-structured interviews with the actors engaged in the food forest initiative and/or interested in local food production contextualized some of the drivers and challenges found throughout the region.

Participant observation (PO)

Participant observation (PO) was an important method, notably when working in Muskeg Lake Cree Nation (MLCN). PO enabled me to observe the various day-to-day activities regarding farming and food production in the community, such as meetings and discussions among community members. These meetings allowed me to participate in some activities to have a better experiential understanding of what is happening and why (Jorgensen 1989 in Creswell and Poth 2018), build trust with community members and contribute where my help was wanted. This involved considerable notetaking in a personal journal, which helped guide other data collection and case analysis. For instance, I was invited to attend the Elders' council meeting at MLCN, where I presented my research-in-progress and invited Elders present to tell me about their experiences and historical knowledge, if they were interested. Several Elders came up to me after my presentation and briefly shared some of their stories, memories and insights.

3.2.2.3 Objective 3: Innovations in food production for community development

I obtained the data for this objective using two methods. First, the semi-structured interviews with the participating Champions (individuals and organizations) included questions designed to elicit ideas and insights about how local First Nations could develop their own food production systems and enterprises, and how best to overcome challenges to growth or success through innovation. Second, the full-day Champions Workshop, which brought together these individuals and representatives of supporting organizations, included sessions in which we collaboratively considered the challenges and innovations associated with First Nations food systems in the region, and the potential for the FNFFP sector to drive multiple aspects of community development. I provide some further detail on the workshop below.

The Champions Workshop

The workshop brought together five Champions that participated in the individual interviews and one other participant. These included Indigenous participants from Ahtahkakoop, Mistawasis and Muskoday First Nations, as well as other Champions who have worked in farming and food production initiatives across Saskatchewan and other parts of Canada,

including CFTC Canada Programs Director Erika Bockstael. The format of the workshop was designed to encourage participants to reflect on my initial findings – based upon the previous interviews with them, and other data – and build upon them as a group to highlight key areas of innovation needed for the sector to grow. Activities included a presentation of my preliminary findings followed by questions, identifying where initiatives were taking place in the region, a breakout into two groups identifying within-community and external barriers-to and innovations-needed-for sector growth and reconvening at the end to refine some of the key ideas addressed over the course of the workshop. While functioning as a space for disseminating and discussing preliminary research findings (from Objectives 1 and 2), the workshop was an opportunity for me (as researcher) and participants to engage in knowledge co-creation and mobilization, guided by a biocultural design approach and framework (Hayes, Robson, & Davidson-Hunt 2017; Davidson-Hunt et al. 2012), whereby community knowledge and aspirations are empowered by research to reveal and mobilize possible solutions and ideas. A summary and reflection of the Champions Workshop can be found in Appendix D.

3.2.3 Community and participant engagement in research

Although academic interests guided much of the research, I worked hard to develop a good relationship with Muskeg Lake Cree Nation (MLCN) and to find ways for my research to be useful to them in addressing issues and interests in their community. I was initially put in contact with Dr. Erika Bockstael of Canadian Feed the Children (CFTC), who then connected me to Glenna Cayen, who is the Community Program Coordinator in Saskatchewan for CFTC and a member of Muskeg Lake Cree Nation. I met with Cayen in March 2018 to discuss my research interests and talk about her work with CFTC at MLCN, which led to an invitation to attend a meeting of Muskeg Lake's Food Security Committee. At the committee meeting, I learned more about the food forest initiative, some current food-related issues in the community, and the role of Holistic Landscape and Design – a company hired by the community to help design and implement their food forest vision. In the meeting, we were able to discuss how my research could be involved in this process and how I could collect data that both supported their need to engage with the broader community membership and met my own research interests. I then contacted Paul Ledoux, a Band councillor with MLCN, who brought up my research interests with other members of Band Council, including Lands Manager Alfred Gamble. Gamble later called me to say that Band Council was interested in having me conduct research at MLCN. In

June 2018, I presented my proposed research to the community and entered into a research agreement. A copy of the research agreement is provided as Appendix F, and was crucial to ensure that my work remained accountable to the community and its members throughout.

Early engagement also extended to some of the Champions that I subsequently interviewed for the research. I initially met with Len Sawatsky in March 2018 to get some context around his experience with Riverside Market Garden at Flying Dust First Nation. I was put in contact with Gordon Enns (Saskatoon Food Council) and Joe Munroe (Muskoday First Nation) through my supervisor, James Robson. These initial, informal chats helped me to think about important themes to include in my study, as well as gauge their interest in the research and thoughts about other important sources of information. Importantly, I asked these Champions to participate as individuals actively interested in First Nations farming and food production initiatives. Engaging with these individuals did not involve partnering of the First Nation communities of which they are members of with whom they associate. Rather, data from these Champions constituted their individual insights and experiences to be used in combination to paint a regional picture of the sector.

3.2.3.4 Reflecting on community engaged research

Most constraints to this study came from the nature of community-engaged research. But I was able to overcome many constraints by adopting a flexible data collection period approach. Various events and meetings were rescheduled multiple times to accommodate unforeseen circumstances and events in the community. As is customary, deaths in the community meant most events were cancelled, or minimally attended at best. Respecting this custom is extremely important, but it made progress on the food forest and research difficult because deaths are often unanticipated. Cancelled events meant some Champions were no longer able to attend or help out at different events, and lack of attendance often meant people missed out on opportunities to engage or provide insight or feedback on plans for the food forest. Initially, I had planned to hold a focus group with community members at Muskeg Lake Cree Nation (MLCN) to allow me to understand why and how (Gibbs 2012) the food forest might or might not be important to community members in MLCN, and to address the role that biocultural heritage played in the food forest design. However, a focus group was ultimately infeasible for this research. Despite the change, participant observation (PO) and getting involved in community events over an eighteen-month period helped to partially make up for what the focus group was intended to

provide and still comprehend the community dynamics that enable, promote or inhibit a FNFFP initiative.

3.3 Data analysis

3.3.1 Analysis strategy

Data analysis occurred in two stages, enabling a “cyclical” process of coding, reflecting on and re-coding data as needed (Saldaña 2016). The first stage involved using qualitative software (NVivo 12) to code, sort, and analyze data collected for Objectives 1, 2 and part of Objective 3. These data came in the form of interview transcripts, historical documents, field notes and review of grey literature. The prolonged data collection period enabled me to move between the various forms of data collection and, while doing so, code and reflect on themes that were emerging between them. The ongoing shift between data entry and analysis allowed me to play with different themes and ideas as they emerged (Yin 2014) and to highlight these themes and ideas as they appeared in ongoing fieldwork and transcription.

The second stage of data analysis came during and after the workshop for Objective 3, where research participants – specifically the Champions interviewed individually – were presented with the initial study findings, and then deliberated on questions related to innovation and growth in First Nations farming and food production sector (Objective 3). Initial findings were also presented to Muskeg Lake Cree Nation’s food security committee meeting in April 2019. Both events offered reflection and verification of initial findings and provided space for critique and feedback, which is essential when conducting research with Indigenous peoples (Kovach 2009; Creswell and Poth 2018).

The first stage of data analysis used a deductive approach for Objective 1 within the literature research/document review and Elder interview. The deductive strategy was important here because it helped identify if and how past experiences with FNFFP affect interest in the sector today. Both stages of data analysis used an inductive strategy in which themes and ideas were generated by the data (Yin 2014), such as the drivers for growth identified by Champions in the FNFFP sector. An inductive strategy was appropriate for addressing themes across both the intrinsic and instrumental case study approach (Yin 2014), as I sought to explain what was motivating changes in the sector by both Champions and MLCN.

3.3.2 Data analysis tools

Most time working with data was spent with the transcription, coding and analysis of individual interviews with Champions. I mostly transcribed interviews using online software, Temi. The software helped save time and create verbatim transcripts that also maintained the “setting, context... and general ‘feel’ of the session” (Gibbs 2007, 11), held in moments of laughter, frustration or interruptions. Following Gibbs’s (2007) advice, other data collected from field notes, archives and other documents were not transcribed to help “focus on the bigger picture” of themes and ideas emerging from these interactions or historical data.

Most coding in NVivo involved individual interview transcripts from Champions and was supplemented by key takeaway messages from the Champions Workshop. Within the software, each Champion was designated as a ‘case’ linked to their individual interview, but most analysis was done through coding their interviews. Simultaneous coding was used prominently, as Champions often raised themes or ideas that were “fuzzy” or addressed multiple objectives (Saldaña 2016). For example, “Community development” was a broader category that was coded with sub-codes like “Capacity building”, or related codes like “Gardening”, as they became more specific.

3.4 Limitations to research

Community engaged research constrains what you can and cannot do. While my data collection period was extended beyond the normal bounds of a master’s thesis, I was able to fill delays with other data collection activities such as literature research and individual interviews. Despite the extra duration, I did not have connected with all of the individuals and organizations interested or participating in farming and food production practices in the study region, and so I cannot assume that all Indigenous communities in the Prairies have experiences and perceptions of farming similar to those that my research reveals. I have also chosen not to include Métis communities in my research, not because they lack a history or interest in farming, but because including their experiences would have required significantly more time and research.

3.5 Ethical considerations

My ethical considerations centre around two specific areas: behavioural research with humans and research involving Aboriginal peoples. I followed the Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (2014), with special attention to Chapter 9

on “Research Involving the First Nations, Inuit and Métis Peoples of Canada”. I was also required to apply for, and adhere to, the University of Saskatchewan’s Behavioural Research Ethics to conduct my research. For example, I gained access to Traditional Knowledge (TK) or Indigenous Knowledges (IK) through my interviews and focus groups with Indigenous participants, notably Elders. As per my research agreement with Muskeg Lake Cree Nation, I recognized that any knowledge shared is the property of the First Nation, and I have limited license to use it to inform my research (see Appendix E for the MLCN Research Agreement).

Another example is the risk of raising potentially traumatic memories, such as direct and intergenerational trauma experienced in the Indian Residential School system. I attempted to avoid this discomfort by addressing it as a potential risk to participants, and suggested they not answer any questions that may have caused distress. I also provided contact information for counselling services to assist Elders with any trauma throughout the project. Maintaining confidentiality and anonymity was impossible for participants of the Champions Workshop, although concerns regarding anonymity or willingness to participate were not an issue. However, participants were notified about these restrictions during the consent process. Regarding willingness to participate, participants were free to withdraw from the study at any time, and their transcripts or recordings destroyed and excluded from the research. This did not occur. Individual interview consent forms can be found in Appendix G and H.

3.6 Knowledge mobilization (KM)

Members of the food security committee helped guide KM for data collected in Muskeg Lake as per the Research Agreement. This was a key opportunity for participants to engage with the research and mobilize it for their own community needs during the poster-drawing and smoothie night, the Elders’ Council meeting, a presentation of preliminary findings to the Food Security Committee, a youth activity at the Muskeg Lake Family Literacy Camp in August 2019 and, finally, a presentation and submission of the thesis to Chief and Council. I plan for the dissertation to be sent to Canadian Feed the Children (CFTC) and other Non-Governmental Organizations (NGOs) such as Food Secure Canada, as well as government agencies that work on issues of Indigenous food systems and food security in the Prairies, and more broadly in Canada.

Academically, the research will have been shared through several means, including submission of this master’s thesis to the College of Graduate and Post-doctoral Studies at the

University of Saskatchewan and paper presentations at the 2018 Canadian Rural Revitalization Foundation Conference in Saskatoon (October 10, 2018), and at the Canadian Association of Geographers conference in Winnipeg (May 29, 2019). After defending this thesis, I plan to submit a manuscript to a Canadian academic journal that publishes work on rural development or sustainability.

CHAPTER FOUR: THE FNFFP SECTOR OF CENTRAL SASKATCHEWAN

This first results chapter outlines the scope and diversity of First Nations farming and food production (FNFFP) initiatives in Central Saskatchewan (section 4.1), explains what drives or underpins interest in such initiatives (section 4.2), and considers how First Nations' recent past experiences with farming and food production has influenced how the sector looks today (section 4.3). Sections 4.1 and 4.2 address Objective 2 of the research, while section 4.3 contributes to Objective 1. The chapter shows that FNFFP is an emergent, growing sector in the region. First Nations are adopting an array of strategies to produce food on reserve, and are doing so to address both individual- and community-level development needs and aspirations. The chapter sets the context for Chapter five, which focuses on barriers to sector growth.

4.1: What does the FNFFP sector look like today?

I investigated the FNFFP sector in Central Saskatchewan by identifying and locating FN communities in the region with recent, current or planned on-reserve food production initiatives, and then organized these often diverse initiatives by their relative scale. To do this, I drew on data from individual interviews with Champions, the Champions Workshop held in March 2019, conferences and workshops in which I participated (Forum on Indigenous Farming in Saskatchewan, 2018; Seed Saving and Tobacco Workshop, 2019), as well as field notes from my participation in various community committee meetings and events. My fieldwork was mostly focused on the Canadian Feed the Children (CFTC) community partners of Ahtahkakoop, Beardy's and Okemasis and Muskeg Lake Cree Nations.

The First Nations and initiatives I identified do not capture every FNFFP activity in the region. Conversations with people from across the province made clear that there are at least a few individual families in nearly every FN community in the region with a household garden, and similarly most communities still have one or two individual active farmers. Rather, my focus was on those First Nations in the region where there is a visible FNFFP presence or initiative in place, and/or concerted efforts underway to develop such a presence.

4.1.1 Location and distribution of FNFFP initiatives in Central Saskatchewan

Central Saskatchewan is home to 33 First Nations. Of these 33 First Nations, eleven were identified as having a noted FNFFP initiative. Figure 4.1 provides their location and distribution. The coloured regions represent the Treaty territories in the region, and nearly all of the featured communities fall within Treaty 6. The First Nations with noted FNFFP initiatives are labelled using coloured markers, with each colour signifying the particular scale of food production initiative most visible in that community.¹² Other First Nations (without an identified FNFFP initiative) are labelled in black.

The identified FNFFP communities are found across most sub-regions of Central Saskatchewan, while types of food production initiative (gardening, farming, etc.) are mixed across the region. One emerging cluster that does stand out concerns the CFTC-partner communities of Ahtahkakoop, Muskeg Lake and Beardy's and Okemasis Cree Nations. While each of these three communities has started their own initiative, they tap into the same group of Champions and support from CFTC to further their individual goals and learn from each other's experiences. Indeed, the interview data suggest that the lack of clustering overall should not be taken as evidence that First Nations communities do not communicate or exchange ideas with one another about their food production ideas and initiatives.¹³ Networking appears to be a significant factor, and will be featured prominently in Chapter five (section 5.3.2)

¹² While I have labeled these communities with these categories, all categories may be present in a community. I assigned categories based upon their significance in terms of current or recent scale or impact in the community.

¹³ For instance, a gardening family travelled approximately two hours from Poundmaker First Nation to Muskeg Lake Cree Nation to attend the two-day seed saving and tobacco planting workshop (field notes, February 22 2019).

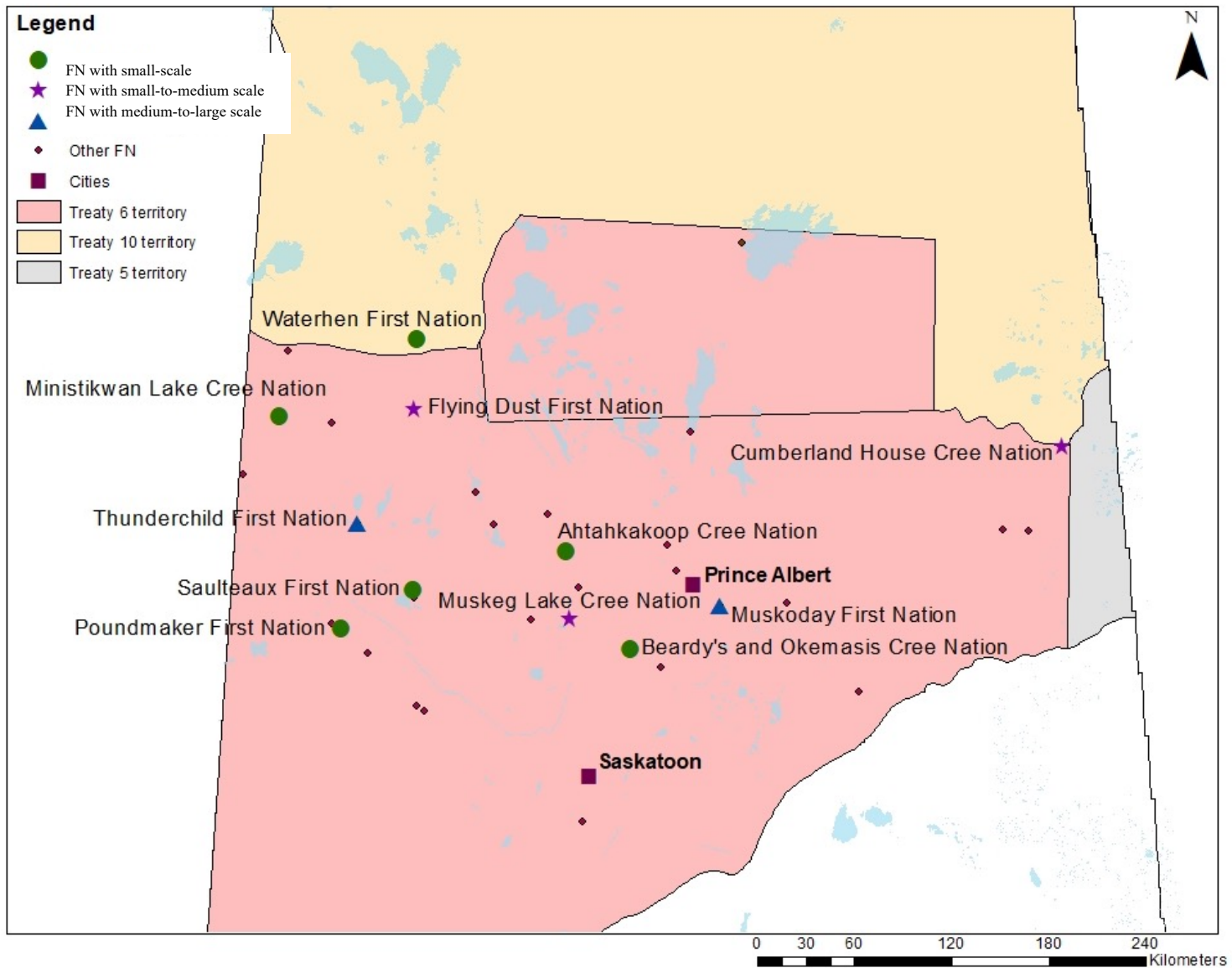


Figure 4.1: Distribution of First Nations in Central Saskatchewan with notable FNFFP initiatives

4.1.2 Categorizing FNFFP sector initiatives

Table 4.1 provides further details on these initiatives, including year of establishment, type, range, and scale. I categorized the FNFFP initiatives identified in Central Saskatchewan under one of three categories by scale: small, small-to-medium and medium-to-large. These categories are further divided into sub-categories or sets of approaches that reflect some of the nuances behind how each First Nation in the region are engaging in food production.

Table 4.1: Communities identified with FNFFP initiatives¹⁴

First Nation	Types of initiatives	Year Established	Scale
Ahtahkakoop Cree Nation	Community outdoor/cold frame tunnel and school gardens	2018	Small
Beardy's and Okemasis Cree Nation	Backyard gardens; chicken coops	2017	Small
Cumberland House First Nation	Cold frame tunnel gardens	2008-2013	Small-to-medium
Flying Dust First Nation	Riverside Market Garden and Co-op	2009	Small-to-medium
Ministikwan First Nation	Gardens	~2019	Small
Muskeg Lake Cree Nation	Food forest	2018	Small-to-medium
Muskoday First Nation	Family farms/ Organic Farm Cooperative	~1870/ 2008-2011	Medium-to-large
Poundmaker First Nation	Family gardens	~2018	Small
Saulteaux First Nation	Family and community gardens	~2018	Small
Thunderchild First Nation	Family/Band-run farms	~2018	Medium-to-large
Waterhen First Nation	Gardens	~2018	Small

4.1.2.1 Small-scale food production

Initiatives for six of the eleven identified communities could be considered small-scale. These manifest in the form of individual family gardens, and community and school gardens. In some communities, technologies, such as the indoor tower garden, are being used as part of community and school gardening initiatives. Underlying each is an individual and/or collective

¹⁴ This scale range is a general categorization to show that most FNFFP initiatives are smaller in scale

desire to produce fresh produce on reserve given constraints of available land, labour and capital. Thus, the smaller scale limits the involvement of community members, labour and outputs to a maximum of a community-wide scale and impact.

Individual family gardens

Dorothy Ahenakew is from Ahtahkakoop Cree Nation and works as a Food Security Assitant with Canadian Feed the Children, which she attributes to her upbringing and exposure to gardening. She noted that “My parents, they were very avid gardeners and they were very [professional].” Individual family gardens remain an important form of food production on reserve. Many of the Indigenous Champions interviewed, as well as Elders and other community members, noted how their parents and especially grandparents all had their own gardens. Today, these gardens are less common, especially among younger families, but many older community members continue to garden while they are physically able to do so. While there are fewer gardens today than in the past, there appears to be a resurgence of gardening on reserves like Ahtahkakoop, Beardy’s and Okemasis, Ministikwan, Poundmaker and Waterhen First Nations. As families express an interest and need for locally-grown food, they see the benefit of gardens that are scaled to their needs and tastes.

A number of Champions anticipated family gardens to increase in number as people gain gardening knowledge and skills. In recent years, there have been workshops and training courses provided by local expert gardeners or gardening networks, such as the Glenda Abbott’s seed-saving workshop, while older community members are often keen to pass on their wisdom to younger generations. While individual family gardens are rarely at a scale where they can produce food for sale, they are seen as playing an important role in providing healthy and affordable food for families, and contributing to a resilient Indigenous food system (see section 4.2.3.1). At Beardy’s and Okemasis, at least 40 families are registered with the backyard gardening program, with another 30 unregistered gardens (Gardenline, personal communication June 25, 2019). While exact numbers of individual gardens are difficult to track, they can be an important and growing foundation to underpin collective gardening interests. As retired farmer Clifford Ahenakew from Ahtathkakoop explained, “Gardening is number one, right? We’ll have a healthy garden, healthy people and we’ll have healthy workers. It goes down like that, down the line.” Growing vegetables in a garden can also trigger interest in other forms of backyard food production.

Community and school gardens

Interviewees noted that most identified communities had a community garden at some point in the past. Today, community or school gardens were present in six of eleven First Nations identified in this research. Notably, Ahtahkakoop was the only community identified with both community and school garden initiatives today. These gardens are generally created on communal lands, close to the community's administrative centre. Such centralized locations are deliberate, in that they encourage gardens to function as collective learning spaces, as well as places that can produce food for everyone, especially those in need. During the 2018 season, Dorothy Ahenakew planted a small garden by the elementary school. The intent was to help educate local youth about growing food and learn about where their food comes from, as well as develop skills and an interest in gardening that they could take back to their families. Along with the school garden, she planted a large community garden on a temporarily reserved portion of land in 2018. For 2019, the garden has moved to a permanent location on Ahenakew's family's land, located close to Ahtahkakoop's administrative centre. For Ahenakew, "it's just the start ... now [our] main focus is feed the people. Feed families." While Ahtahkakoop's experience shows that community and school gardens continue to be talked about and some are put into operation in First Nations communities in the region, they also require maintenance over time. Alanna Remmen is a dietician at Beardy's and Okemasis First Nation. She attributed the recent decline of the community garden there to the fact that maintaining gardens can be challenging as the anticipated workload grows and engagement levels subsequently drop, or other community-level interests take precedence. Alternatively, some First Nations have been using indoor tower gardens to improve engagement with gardening (Box 4.1).

Box 4.1: Indoor tower gardens for small-scale food production

One technology that has recently been adopted for small-scale food production comes in the form of indoor tower gardens. Although they are more prevalent in First Nations in Northern Saskatchewan, a number of communities, notably Ahtahkakoop and Muskeg Lake, have purchased indoor tower gardens from EarthConnections, a Saskatchewan-based company founded by Frank Tecklenburg and his family. This system uses vermicomposting together with watering and lighting systems, to grow plants in vertical, rotating towers, producing food year-round. He promotes them as great teaching and learning tools in schools, health centres and individual homes, because they allow youth to understand how to grow food and "get excited" about what they plant and acquire a taste for the produce, such as microgreens, which "are ready to eat within seven days". The "instant gratification" of microgreens can help keep youth engaged with the tower gardens and keen to grow more of their own food.

4.1.2.2 Small- to medium-scale food production

A number of small- to medium-scale initiatives appear to move First Nations food production beyond that of conventional farming or community gardens to blend long-standing food production methods with new economic or organizational models. They include market gardens and/or new technologies like cold frame tunnels and permaculture design. They are being tested by First Nations, and are often driven by values and interests that go beyond producing food solely for consumption or sale. Rather, they are often tied to multiple aims or objectives, with food for sustenance intertwined with other community development needs and aspirations, which will be discussed in detail in section 4.2.

Market garden co-operatives

Muskoday, Cumberland House and Flying Dust First Nations have attempted to expand beyond community gardens into market garden co-operatives. Only one of these, though, is still in operation today. From 2012 to 2016, Cumberland House First Nation produced a large quantity of fresh produce on reserve, such as strawberries, baby potatoes, tomatoes and peppers. Most produce was consumed by community members, but at its peak their market garden was selling peppers to the Federated Co-op grocery store under their own brand (field notes, April 9 2019).¹⁵ From 2008-2011, Muskoday Organic Farm Cooperative used welfare funding to train community members to farm “17 acres planted to potatoes, as well as other plots with tomatoes, corn, squash, beans and sunflowers” along with rotational crops with bison and oats (Munroe 2018; Western Producer 2009). Former Manager Len Sawatsky said the Riverside Market Garden at Flying Dust First Nation began in 2009 with the creation of a co-operative to produce organic vegetables for consumption in the community, and to sell to grocery chains (such as Sobeys’s) and food service companies (such as ThomasFresh) in Saskatchewan. While the co-op model adopted by the Riverside Market Garden was not initially owned and managed by the Band Council, they have played an increasing role in business decisions over time.¹⁶

All three of these market gardens mix or mixed conventional gardening with open garden patches and the incorporation of more complex technologies, such as coldframe or garden tunnels (see Box 4.2).

¹⁵ The Cumberland House market garden was under the direct management of the economic development arm of the Band Council.

¹⁶ Len Sawatsky’s position as Manager of the co-op was terminated after the Band Council took over operations.

Box 4.2: Cold frame tunnel garden technologies

Cold frame tunnels are similar to greenhouses, but are non-permanent structures built directly on cropland that do not have heating or ventilation systems. Communities such as Ahtahkakoop and Cumberland House in Central Saskatchewan have used cold frame tunnel gardens to extend their growing seasons, to be more water efficient, to reduce the use of chemicals and overall energy use, and to increase yields by preventing damage from bugs, animals or inclement weather (field notes, April 9 2019). These tunnels have been popular in Northern Saskatchewan communities, such as Isle-a-la-Croisse, Buffalo Narrows and La Loche, where their experiences have inspired First Nations like Ahatahkakoop to purchase and construct their own. While a cold frame tunnel has only recently been installed in Ahtahkakoop, La Loche is on their third year of growing food, with community members showing interest in taking the skills learned into their own backyard gardens; one man built his own cold frame and is growing his own food. While vandalism can be a concern for communities with communal gardening spaces, community members in La Loche developed “an appreciation for the space” (field notes, April 9 2019) and vandalism has not been an issue.

In the case of Flying Dust, the market garden evolved to include storage and processing infrastructure, such as potato and other produce storage facilities.¹⁷ Such technologies and storage infrastructure can help communities expand their gardening operations and reach larger market scales.

Such initiatives show economic potential, and can grow to the point where produce is sold in grocery stores in regional urban centres. As former Manager of Riverside Market Garden Len Sawatsky, explained, “It was the big thing; the go-to place ... people were paying attention [to the community] because of the garden. They were grounded in the garden.” Outside of the study region, in Northern Saskatchewan, Isle-a-la-Croisse (*Sakitawak*) continues to grow a range of fresh produce, with surplus canteloupe sold in front of the nearby Northern Store (field notes, April 9 2019). However, my research has shown that few such ventures maintain their success over time. Riverside Market Garden, for example, scaled back its operations in 2018. Some of the barriers that can limit market gardens and growth in this sector are explored further in Chapter five (see section 5.1).

Food forests (Muskeg Lake Cree Nation sakāw pimatan)

In 2017, Muskeg Lake Cree Nation was accepted as one of three communities to receive community project funding through Canadian Feed the Children’s (CFTC) new Saskatchewan community development initiatives. As part of this project, Glenna Cayen (who is a band

¹⁷ Cumberland House received an offer to build a soup-making plant with their produce, but the offer fell through when their market garden closed.

member and resident of Muskeg Lake since 2013) was hired for a part-time position as a Community Project Coordinator for CFTC’s Saskatchewan, Canada programs. Through her position, she took courses on permaculture design and came up with the *sakāw pimatan* (food forest) project for her community. For Cayen, permaculture design and the food forest “tries to work with nature as opposed to just straight row planting.” The idea behind using permaculture design for its food forest was to create a space for producing healthy food, which required limited work to maintain, served the local environment and people’s health and matched the lived realities of community members (Plate 4.1).



Plate 4.1: The Author at the food forest, September 22, 2019.

This project is the first of its kind on a First Nation reserve in the region. It was planted on two-and-a-half acres of land that runs alongside Paddling Lake, close to the Catholic church and cemetery. In addition to the food forest, trees and shrubs were planted around the nearby elementary school, health centre and Band Office buildings. The food forest includes various

trees and shrubs that produce food, including apples, plums, chokecherries and saskatoons. Along with food-producing shrubs, the forest also includes boreal tree species, such as spruce and birch, which help provide wind breaks and prevent erosion. Once the planned gazebo and community kitchen are constructed, flower and medicine gardens will also be incorporated into the forest. These will provide a communal growing and learning space, as well as help to beautify the area and attract pollinators. The forest is relying on permaculture design to support organic growing practices, and will pump water directly from the lake when needed.

Further details about the food forest can be found in Box 5.1 (Chapter five), with further discussion in Section 6.5 (Chapter six). Although it will take a few years before the forest begins to bear fruit, it promises to provide both a source of food and a space for food education. It may be something that other communities in the region look to replicate.

4.1.2.3 Medium-to-Large scale farming

As the literature suggests, First Nations in Central Saskatchewan have farmed large portions of their lands in the past (Dawson 2003, Carter 1990; Poitras 2000; Littlepine, Arcand and Natcher 2018), and have a rich history of farming. Clifford Ahenakew, a retired farmer from Ahtahkakoop Cree Nation, explained to me that Chief Ahtahkakoop was not only a prominent leader during the negotiation of Treaty 6, but somebody who encouraged agriculture among his people. Ahenakew's family have farmed on-reserve since the 1960s, and his son has gone on to take over their cattle operations. Similarly, in Muskoday, Everette Bear, his relative Dean Bear, and other family members, have farmed for decades, with two of Dean's brothers also running farms at present (field notes, Dec. 18 2018). Furthermore, Muskoday showed renewed interest in farming with the Muskoday Organic Farming Co-Operative (MOFC) mentioned earlier – although it did not last.

While the Ahenakew and Bear families continue to have farms in their respective First Nations, they seem to be exceptions for the region as a whole. The brief rise and fall of a medium-to-large scale initiative like the MOFC, as well as insights from interviews, suggest that on-reserve farming initiatives in Central Saskatchewan are less common today than they were in the past. Interviewees noted that while much of reserve land is suitable for large-scale farming, most reserves only have a few individual farmers with their own grain, hay, livestock or horse operations, and most of these are elderly and in the process of retiring. Furthermore, a significant portion of potential farmland on many First Nations is currently leased to non-Indigenous

farmers, and, as such, that land is not easily accessible to prospective reserve farmers to establish or grow their operations (discussed further in section 4.3).

While the leased lands provide much needed revenue sources for First Nations, some have voiced an interest in farming the lands themselves. The Forum on Indigenous Agriculture held at Wanuskewin Heritage Park on December 18, 2018, was a gathering of First Nations interested in the potential benefits of on-reserve farming as an engine of local community development. At the Forum, Thunderchild First Nation was the only community in Central Saskatchewan identified as currently pursuing a large-scale initiative, built around the training of its community members as farmers. In his interview, Joe Munroe told me that Thunderchild was “farming 6000 acres right now” of “high-value crops” to generate revenues for the reserve. However, the initiative remains in its preliminary stages and currently relies on hired non-Indigenous farmers to run the operations and provide training to prospective on-reserve farmers. In Chapter six (Section 6.1), I discuss some possible reasons why large-scale farming operations among First Nations have not become more common in the region.

4.1.3 FNFFP support organizations

Most First Nations interested in farming and food production would not be able to pursue initiatives without support from one or several types of higher-level organizations or programs. Table 4.2 lists the organizations – private, public, civil society, Indigenous – that have supported or are currently supporting FNFFP initiatives.¹⁸ Most were mentioned during individual interviews with Champions and at the Champions Workshop, or through my own online research. The list is not an exhaustive one. Other, often smaller organizations may exist that have contributed small grants, equipment, learning materials, etc. to FNFFP initiatives at some time or another.¹⁹ However, the organizations listed here are considered those to have been most significant within the sector.

¹⁸ “Indigenous” organizations were made as a separate category to emphasize their responsibilities to First Nations peoples and that they range from heavy government involvement (i.e. Tribal Councils) to more independent management (i.e. Kitsaki Partnerships Ltd.)

¹⁹ Dorothy Ahenakew noted that the Shell Lake Memorial Golf Course donated fifteen haskap plants to Ahtahkakoop Cree Nation’s garden.

Table 4.2: Organizations supporting FNFFP initiatives in Central Saskatchewan

Sector	Organization	Support for FNFFP sector
Non-Governmental Organizations (NGOs)	Canadian Feed the Children (CFTC)	MLCN food forest; ACN community/school garden; BOCN backyard gardens
	Heifer International ²⁰	Livestock
	Wanuskewin Heritage Park	Medicinal garden; Indigenous Agriculture Forum
	Tides International	Grants
	McConnell Foundation	Grants, Riverside Market Garden
	Lawson Foundation	Grants, Riverside Market Garden
Government/Public	Indigenous Services Canada	Main funding source for Band and Council
	Health Canada	Grants; health centre resources and programming
	Agriculture Canada	Grants; workshops
	Farm Credit Canada (FCC)	Loans/financing
	University of Saskatchewan College of Agriculture and Bioresources	Crop/seed development Research Garden support network
	Gardenline	
Private	EarthConnections	Gardening workshops; tower gardens; consultancy
	OneEarth Farms ²¹	Cattle and grain operations on reserve lands
	ThomasFresh	Restaurant and catering company (with Riverside Market Garden [RMG])
	Sobey's	Grocery retailer (produce from RMG)
	Holistic Landscape and Design	Landscape consultancy and permaculture design; MLCN food forest
Indigenous	Indian Agriculture Canada	Support network, grants for FN farmers
	Kitsaki Partnerships	Lac La Ronge Indian Band, economic development corporation
	Riverside Market Garden	Flying Dust First Nation, garden co-op
	Muskoday Economic Development Authority	Economic development corporation
	Saskatoon Tribal Council	Regional FN governing body
	Prince Albert Grand Council	Regional FN governing body
	Saskatchewan First Nations Economic Development Corporation	Funding, support resources for FN enterprise
	Federation of Sovereign Indigenous Nations (FSIN)	Province-wide FN governing body, grants/loans

²⁰ No longer operational in Saskatchewan First Nations

²¹ Now Beretta farms; no longer operational in Saskatchewan

4.1.3.1: Non-governmental organizations

Champions identified NGOs, such as Canadian Feed the Children (CFTC), as the preferred types of external support organization, which often provided more easily accessible sources of funding and training for FNFFP initiatives. They were instrumental in supporting FNFFP initiatives at Muskeg Lake, Ahtahkakoop and Beardy's and Okemasis Cree Nations by providing resources for food and youth-related projects and by hiring people who live/work in these communities to facilitate them. The benefits of their supporting approach were reflected at the Champions Workshop. Champions noted how NGOs, such as CFTC, provided "not just funds; [also] expertise", "facilitate inter-community connections" and avoid the hurdles faced from government agencies that "don't communicate" with each other and have "difficult timelines" regarding funding applications. This has not always been evident in the region. Gord Ens is the former director of Heifer International's Americas program for Canada and oversaw projects in Saskatchewan. He told a story of one community that received funds to buy around 100 cattle, but "the project was a total failure... an example of the kind of top-down... [there was] no kind of process [of asking the community], 'what [do] you want to use it for?'" Section 5.3 (Chapter five) notes how organizations like CFTC constitute a new way of working with communities within the FNFFP sector.

4.1.3.2 Government/Public organizations

The Federal Government has a number of departments or programs that have provided past support to FNFFP initiatives. While Indigenous Services Canada is the main revenue source for most FN activities, other government departments and programs such as Health Canada (that supported Alanna Remmen's work with the Willow Cree Health Centre – see below) and Agriculture and Agri-Food Canada (AAFC) (that have supported Muskoday First Nation, and Flying Dust First Nation's Riverside Market Garden) have often been important sources of funding and expertise.

The Provincial government has provided less direct support to date. Most provincial assistance has come indirectly in the arena of post-secondary education. First Nations farming Champions like Dean Bear and Joe Munroe have degrees in Agriculture, while Frank Tecklenburg and Glenda Abbott have degrees in business and education, respectively. The Indigenous Land Management Initiative (ILMI) and *Kanawayihetaytan Askiy* (let us take care of the land) certificate and diploma programs at the University of Saskatchewan cater specifically

to Indigenous peoples, and include a focus on farming and other forms of food production. Both the University of Saskatchewan and other provincially-funded post-secondary institutions, such as the Saskatchewan Polytechnic Institute, seem to play an important role in providing non-financial resources and educational opportunities that support FNFFP initiatives.

4.1.3.3: Private organizations

Private sector, profit-driven organizations that support or have supported FNFFP initiatives in Central Saskatchewan range from the small-scale (EarthConnections, Holistic Landscape and Design) to larger, commercial outfits (OneEarth Farms, Sobey's). At the smaller scale, private organizations offer services and equipment that help provide technical and infrastructure support to FNFFP initiatives. For example, EarthConnections provides expertise on the use of tower gardens, while Holistic Landscape and Design designed and led construction of Muskeg Lake's food forest. As an initiative grows, bigger, commercial organizations can become involved. As Len Sawasky noted, Riverside Market Garden partnered with ThomasFresh and Sobey's, who were able to market their high-value organic produce to large urban markets. Outside the study region, there is the example of agro-industrial giant, Cargill, partnering with Cowessess First Nation to transport their grain and oilseed crops (field notes, December 18th 2019). Champions, however, noted the trade-offs of First Nations working with the private sector, which is discussed further in Chapters five and six.

4.1.3.4 Indigenous organizations

From the 1970s until 2002, the Federation of Sovereign Indigenous Nations (FSIN) had a large role in supporting the Saskatchewan Indian Agriculture Program (SIAP). Today, most support comes from Indian Agriculture Canada and the Saskatchewan First Nations Economic Development Corporation (SFNEDC) who were present at the Indigenous Agriculture Forum (Field notes, December 18, 2018). This support manifests in developing large-scale agriculture projects, or for business-oriented initiatives for First Nations peoples in Saskatchewan. The research shows that neither the Saskatoon Tribal Council nor Prince Albert Grand Council were found to have significant involvement in FNFFP initiatives. However, they have provided some funding for gardening training and workshops (Gardenline 2019). While regional-focused Indigenous organizations are involved or could be involved supporting FNFFP initiatives, most support and activity still tends to come from a Band's economic development arm. Kistaski

Partnerships (Lac La Ronge Indian Band) is a prominent example in Northern Saskatchewan,²² while Riverside Market Garden and Muskoday Economic Development Authority have overseen key FNFFP initiatives in Central Saskatchewan.

4.1.4 Section summary

Approximately a third of FN communities in the region have notable FNFFP initiatives underway or planned. Most are small-scale – from family or community-oriented gardens to community-run horticultural activities – with fewer medium-scale market gardens or larger-scale agricultural operations. Some exhibit an interesting blend of novel, introduced technologies and techniques with Indigenous-framed ethics and values. Together they demonstrate how a significant number of First Nations across Central Saskatchewan are interested and active in farming and food production. Individual communities are choosing their own specific approach as part of this sector, undertaking initiatives to suit the individual and collective interests and goals of their members. The rationale for such choices forms the focus of the next section.

4.2 What drives interest in this sector?

The previous section considered the scope of the region’s FNFFP sector but had little to say about what leads First Nations to get involved in such activities. This section explores the key drivers or categories of drivers that underpin much of the individual and collective interest in producing food on reserve. It draws predominantly on data from interviews with FNFFP Champions, who identified a large number of drivers (Table 4.3).

Table 4.3: Drivers of current FNFFP sector by coding (in NVivo 12)

Drivers	# of Champions coded	Total # references coded
Health	11	24
Environmental concerns	6	20
Land-based education	9	29
Youth engagement	8	30
Elders	9	16
Self-sufficiency/reliance	5	15
Food security	9	25
Food sovereignty	4	18
Economic development	5	16
Indigenous economies	10	31
Youth engagement	8	30

²² They oversee wild rice farming and Athabasca Catering Ltd.

The order in which these drivers appear in the table is not intended to denote degree of significance or relevance. Sometimes, Champions found it difficult to rank one driver as being more important than another, and explained how some initiatives in the region were driven by multiple goals. For example, Muskeg Lake’s Lands Manager, Alfred Gamble, noted how the community’s food forest was designed “to address [both] climate change and health adaptation... developing food security as part of that climate change and adaptation.”

Additional analysis of interview and workshop data organized these drivers into four main categories: i) Health; ii) Land-based education; iii) Self-sufficiency/reliance; and iv) Environmental concerns (see Figure 4.2). Two of these categories include sub-categories (in black text). Land-based education considers Elder/youth engagement, while Self-sufficiency/reliance revolves around the sub-categories of Food Security, Food Sovereignty, Local Food, and Indigenous economies.

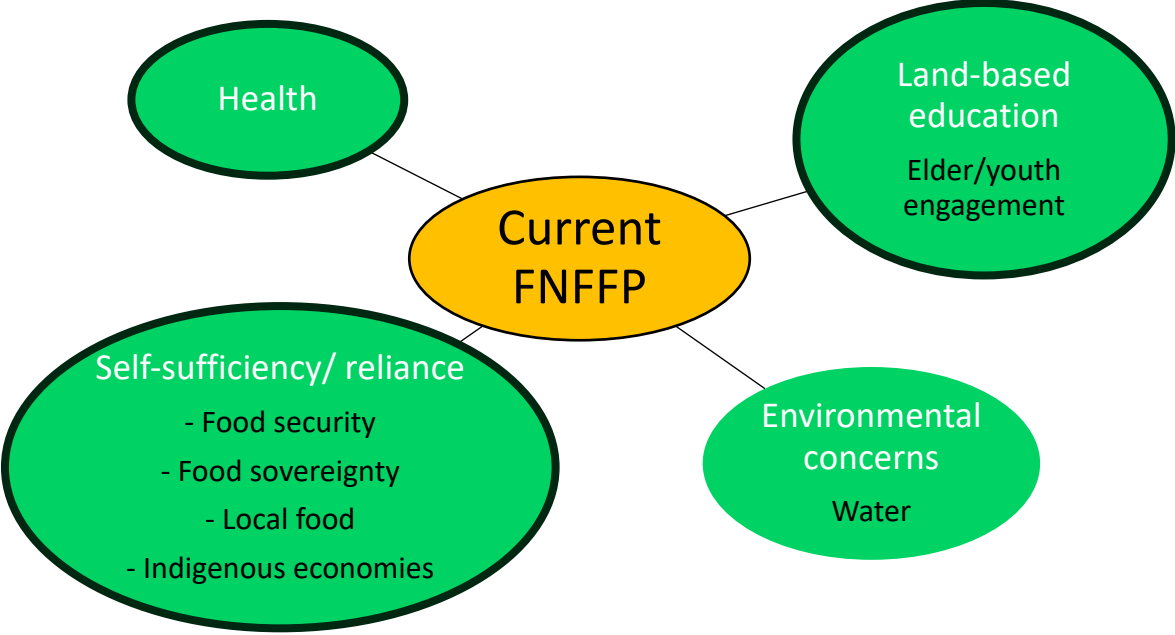


Figure 4.2: Contemporary drivers of current FNFFP initiatives

In this section, I focus on the three drivers – health, land-based education, and self-sufficiency – that were quoted most frequently to me.²³

²³ Environmental concerns were often water-related issues such as access and cleanliness. While out of the scope of this research, I included it in the above diagram to emphasize its significance relative to other drivers of FNFFP.

4.2.1 Health

Health was mentioned consistently by Champions and First Nations members interested in growing food on reserve, and was multi-faceted or dimensional in nature. Growing food on reserve was seen as a way to promote health through improved nutrition, disease prevention, physical exercise, and the therapeutic benefits associated with gardening and connecting to the land (also seen in Gendrwon, Hancherow and Norton 2018). As Glenna Cayen shared regarding the MLCN food forest, “[We are] going organic because it's gone too far the other way. People are sick, people are unhealthy, cancer's high in First Nations. The other thing is diabetes and obesity, so hopefully this will help with that too.”

Several Champions noted how most First Nations people living on reserve have to go to stores in nearby towns or urban centres to shop for food. This contributed to current health and dietary concerns, as Len Sawatsky shared, “because it's so much easier to buy the comfort food or the cheap stuff; the chips and popcorn.” Furthermore, what fresh produce is accessible has often travelled a long distance and is less nutritious and less appealing than the produce that is picked and sold locally. As Frank Tecklenburg noted, “[First Nations'] experience with vegetables is not necessarily a fair one.” In Cumberland House, project proponents saw the tunnel gardens as a way to provide individual community members with more fresh produce and thus a better balanced, more nutritious diet (field notes, April 9 2019). As Frank Tecklenburg explained, the use of tower gardens was to “[give] the kids the opportunity to try a radish more than once ... [and] grow it in school [because] it makes them want to have it again,” rather than frozen or canned foods from the grocery store.

Greater consumption of locally-grown foods was seen as a way to combat and prevent disease on reserve. As Joe Munroe from Muskoday noted, it was important for communities to move away from “colonial food ... [of] flour or sugar ... that contributes to the diabetes, obesity.” He went on to explain that “Eating a traditional diet - which is not just wild meat - it's the vegetables, nuts and the different berries. That's what we're going to do to control – to heal people – from diabetes.” Frank Tecklenburg commented on the broader benefits of disease prevention, referencing the case of Garden Hill First Nation in Manitoba, where “the health benefits are not necessarily immediate, but ... instead [of] creating a \$5 million facility for kidney dialysis at \$120,000 per bed, that's a lot of money... at the community level, health through food would put less pressure on local health services.”

Improved health was also aided by the physical activity associated with gardening and growing food. Clifford Ahenakew from Ahtahkakoop has spent much of his life farming fields or tending orchards and although he smoked until around a decade ago, he says that he and his wife have “been blessed, we've been healthy. I spent three days in the hospital out of 83 [years].” Glenna Cayen noted how “there's lots of therapy [associated with] being out on the land and gardening ... breathing fresh air, bending, moving, exercising.” In terms of mental health, Mason and Robidoux claim that gardening has helped people who suffer from addictions (2017). Tecklenburg mentioned that older people gardening in Fond du Lac felt that they had “something to do” and to look forward to.²⁴ Similar testimonials were provided by Champions from Flying Dust and from Beardy's and Okemasis First Nations, where Alanna Remmen stated “I don't know who the people are suffering from addictions, but I'm told that they find the garden helps their health.” While gardening and farming alone cannot address health issues in First Nations, many interviewees pointed to the mental and physical health benefits that such activities provide.

4.2.2 Land-based education – youth and Elder engagement

Champions saw growing food locally as a key way to better engage youth in their communities, to connect them with their Elders and increase their connection to, and knowledge of, the land. Data show the increasingly important role of growing food in land-based curricula for local First Nations in the region (Michell 2018; Mason and Robidoux 2017). Patricia Ballantyne is an early childhood educator at Muskeg Lake committed to bringing traditional teachings and Western education systems together. For her, growing food is a crucial facet of land-based education, because “you can teach kids about anything when you're doing a garden or out on the land.” In one particular teaching approach, she takes “a picture of a seed and then when we go back and review, [I say] “see this is what your seed has done.” And then when they go on with questions with that, I start talking about the plant and how the plant grows.” For Glenda Abbott, “seed saving is not something from the past, it's something that was a part of our way of being forever and there's so many really deep spiritual, physical, emotional [and] intellectual teachings that go into like our food system as Indigenous people.” For Ballantyne and Abbott, seeds and the plants they become function as crucial learning tools and stores of knowledge for Indigenous peoples, passing knowledge on to the younger generations.

²⁴ Gardening in Fond du Lac was also attributed to a reduction in smoking by community members there.

For some of the Champions interviewed, gardening or farming also helps local First Nations to incorporate and integrate Western scientific knowledge into their contemporary Indigenous land-based education. Alfred Gamble, Lands Manager at Muskeg Lake, explained how “I need them [youth] to understand soils. I need them to understand invasive species or species at risk or relating to water management... [the] gardening/food forest is a tool that we use to, to show relationships, seeing how they interact.” According to several Champions, educators can blend Western and Indigenous education by fostering an adaptive curriculum – one that emphasizes relationships between land, life and people. For Glenda Abbott, the classroom schedule can and should shift around seasonal changes, since “it’s the plants that heal us. We need to take kids out on the land to run and be free and not sit at a desk. And let them discover, taste, explore.”²⁵

A critical aspect to land-based education is to have youth and Elders engage with one another to aid intergenerational knowledge transfer and create a sense of self-worth and responsibility among young people. For Pat Ballantyne, Elders play a critical role in land-based education so that youth “value their culture. Like a lot of them I know don't know about the history of their people.” Embedded in such interactions is the vital role of Indigenous language, which Cliff Ahenakew says is “one of the things we need to teach [youth], what our people want to bring back in our projects, is to teach the language, which carries the culture... to carry the culture and the cultural values.” They saw the act of growing and producing food as a way to allow these teachings to take place. Several Champions saw gardens in particular as critical learning and social spaces, where youth can learn about the food they are eating – names and stories behind the seeds, their biology, the recipes etc. – and interact with their Elders in doing so. For Glenna Cayen, she could see the power of Muskeg Lake’s nascent food forest: “it’s [a] life cycle and ...[when] the kids [get] excited about gardening and this sort of thing ... they'll bring their parents along.”

The Champions noted the interest that youth had in getting involved with growing food. Speaking about the food forest, Glenna Cayen noted how “If it wasn't for the youth... that was the most successful...they did most of the planting, you know? They were eager.” At Ahtahkakoop’s school garden, and at the tunnel gardens in Cumberland House, growing food

²⁵ She used sap running and animal migration as examples of land-based learning opportunities that often fluctuate between seasons.

became an enjoyable experience. Rather than produce large volumes of food, the focus became teaching youth to develop a real interest in food that could be passed on to future generations. As Clifford Ahenakew shared, “you’re building your kids to be independent through ... gardening. Part of independence is because [of] have something to do; because they have something to look forward to.” In Beardy’s and Okemasis, Alanna Remmen shared her thoughts about how youth got involved in their backyard gardens initiatives: “the backyard gardens have been [...] successful because there is ownership over them and their hard work pays off; its rewarding [for youth].”



Plate 4.2: Tree planting day at Muskeg Lake Cree Nation, October 13th, 2018

4.2.3 Self-sufficiency/reliance

Self-sufficiency and self-reliance are umbrella terms that speak to the efforts of First Nations communities to use food to support their goal of community self-determination. In discussions with Champions, it was clear how they were most commonly grounded in the sub-categories of food security, food sovereignty, and the role of local food in Indigenous economies (see Section 2.3).

4.2.3.1 From food security to food sovereignty

Len Sawatsky was one of multiple interviewees who noted food security as a key issue driving interest in the sector today. “First Nations are not on a level playing field when it comes to food security and food access,” Sawatsky said, “Not at all.” In addressing this issue, Champions emphasized the importance of growing food on reserve and consequently providing community members with greater access to nutritious, tasty and fresh food. This went beyond simply growing more food locally, it was also about creating skills and interest among people so that they valued producing their own food. In the case of Flying Dust’s Riverside Market Garden, Sawatsky mentioned that while the co-operative might not survive, “at least 30 or 40 people know how to run a garden now ... know what to plant in their own backyard and garden.” Similarly, Alanna Remmen shared how the backyard gardens and chicken coops at Beardy’s and Okemasis were targeting families already interested in producing their own food, but who lacked support to do so. The aim now was to take a step back and allow those families to recognize their abilities and achievements, thus empowering them to continue on their own and shift from food *security* to food *sovereignty*. In this way, food sovereignty becomes about the building of food-related skills, capacities and interests until they are woven into the fabric of the community (Kamal et al. 2015).

This sentiment was shared by Glenda Abbott, who saw food sovereignty as a pillar of community self-sufficiency in which “sovereignty is being able to define things on our own”. She explained that FNFFP initiatives were helping First Nations to dismantle the notion that growing food is somehow non-Indigenous or colonial, and instead to view food as “central to identity and culture. Like, if you go to Greece, you’re gonna have [Greek] food, but a lot of times people... don’t even know what Indigenous cultural foods are anymore.” She saw the resurgence of Indigenous food systems as a reconnection of food and culture and thus identity for Indigenous peoples. And it was this reconnection, and the idea that a healthy Indigenous food system is a part of Cree culture and central to an Indigenous “way of life,” that she felt was going to play a key role in Indigenous peoples regaining their sovereignty.²⁶ As Len Sawatsky explained, “now that they [Treaty 6 First Nations] know how to grow their own food, never again will they ... sign whatever [is] put before [them].” In this way, the practice of gardening,

²⁶ Kamal et al. (2015) offer a comparable case of food sovereignty in O-Pipon-Na-Piwin Cree Nation, Manitoba, which echoes the findings presented here.

harvesting, preserving and feasting are important features of Indigenous sovereignty in that they are self-determination in action. This concept is considered further in Section 6.2 (Chapter six).

4.2.3.2 Local food contributing to an Indigenous economy

While revenue generation was a driver for some medium- to large scale initiatives like market gardens or farms, Champions noted that experiences with commercially-oriented FNFFP initiatives had been mixed at best. For example, Dean and Everette Bear from Muskoday First Nation explained how Indigenous people interested in commercial farming faced a tough time accessing the land, capital and equipment they need to be competitive in a globalized marketplace. Similarly, Len Sawatsky, Gord Ens and Joe Munroe highlighted the problems facing market garden operations once they had been re-oriented for revenue generation. For Joe Munroe, the “kiss of death” came as soon as a Band Council placed emphasis on making money rather than providing community members with an income and transferable skills.

What the interviews and workshop discussion illustrate is that many of the First Nations involved in the sector see the potential of food production to support the development of Indigenous economies that extend beyond simple profit-making (see Cajaiba-Santana 2014; Pengelly and Davidson-Hunt 2012; Neumeier 2012), and place most emphasis on reducing community reliance on government or private funds to sustain their livelihoods. A number of Champions envisioned neighbouring communities working together to help each other work “outside” of the dominant system, reducing their dependence on outside markets and actors. As Cayen envisions, “having a reserve grow potatoes on one garden and another reserve grow carrots on another reserve and then start exchanging for other produce; say I give you 500 pounds of potatoes if you give me 200 pounds of carrots.” Figure 4.3 shows a word cloud of language used by Champions in their interviews to convey the potential of the FNFFP sector to contribute to an Indigenous economy in the region. Such an Indigenous economy is centred around concepts of “sharing”, “community,” “local” and “organic” language. Trade and barter were important components. Glenda Abbot referred to traditional exchange as a system of “abundance”, where feasts and relationships tied to food were “our sign of wealth”. She believed that a return to an Indigenous food system could help trigger the revival of broader Indigenous trade networks that existed before colonization, with the hope that they could operate independent of, in tandem with, or in opposition to Western, capitalist-oriented economies.



Figure 4.3: Word cloud of concepts behind ‘Indigenous economies’

4.3: Connecting the past to the present in the FNFFP sector

This chapter has sought to characterize the contemporary FNFFP sector in Central Saskatchewan. However, my research also wanted to understand how current experiences have been informed by the past (Objective 1). While Chapter two provided a history of FNFFP in the Prairies pre- and post-contact, there was little in the literature about the sector after the 1930s.²⁷ As such, I purposely included interview questions about the intervening period, and this final section reports on my findings. Late Elder Deanna Greyeyes from Muskeg Lake Cree Nation, Clifford Ahenakew of Ahtahakoop Cree Nation and Everette Bear of Muskoday First Nation were integral to this work. Their lived experiences of FNFFP in the region covered much of the target period, supplemented by what their parents and grandparents had shared with them. Insights from literature research (see section 3.2.2.1), other Champions interviews, and FNFFP workshops/conferences were used to validate and reinforce what they told me.

4.3.1 Four factors of FNFFP in the past shaping the sector today

Chapter two of this thesis had pointed to how the colonial state, and its affiliated Departments or Ministries, used laws, policies and violence to undermine First Nations advances in farming and food production and subjugate them to assimilation and dependency. This meant

²⁷ Historical accounts prior to WWII are well documented. See Carter (1990), Buckley (1992), Daschuk (2014).

that by the early- to mid-twentieth century, colonial policies had altered First Nations peoples' links to customary lands and food production in Central Saskatchewan.¹

Interviews conducted with Elders and select Champions, as well as literature research at the University of Saskatchewan's Archives and Special collections, build upon the literature from Chapter two and help bridge past experiences of FNFFP to today. Elder Deanne Greyeyes, echoing Carter (1990) told me: "I think Indian Affairs – this is my own belief – worked to undermine the success of First Nations farmers because they were very good. They were producing more than the immigrant farmers – and then they were complaining. So, Indian Affairs did things like not deliver the seed or the equipment that was promised, and so I think it was just working uphill and that might've been why a lot of people just left farming." Further data analysis identified that, notably after the Second World War, a mix of state policies and changing lifestyles impinged on local First Nations to weaken the FNFFP sector, but ironically also provide impetus for its potential resurgence as examples of interwoven drivers behind nutritional and economic transitions in the region (Gerlach et al. 2011). From these data, I identified four main factors or areas (Fig 4.4): (i) loss of land, (ii) restricted access to capital, (iii) disrupted knowledge and support systems, and (iv) change in diet (with associated health problems) – and I look at each in turn.

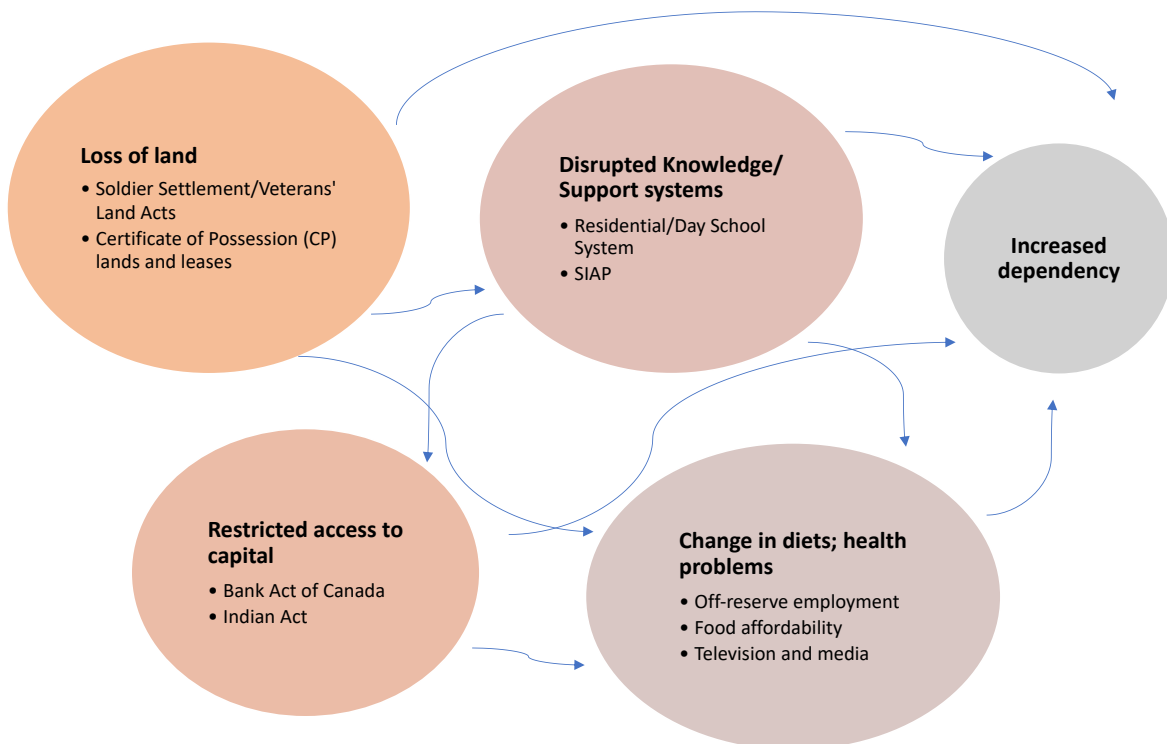


Figure 4.4: Four factors that shape the contemporary FNFFP sector in Central Saskatchewan

4.3.1.1 Loss of land

Several government policies served to restrict First Nations access to lands, limiting the possibilities for First Nations people to farm and produce food. One was the Soldier Settlement Act (1919) that allotted land for veterans of the First World War, followed by the Veterans' Land Act (1945). Non-Indigenous veterans were allotted reserve lands, displacing the Indigenous peoples who previously occupied them. As Deanna Greyeyes recounted: "They were the returning veterans because they had that program where a veteran got 100 and 600 and some acres, then anyway, they got a piece of land to farm in. The Indian people didn't." For the Government, the Soldier Settlement and Veterans Land Acts superseded the Indian Act (Dempsey 1983), such that families' lands were often divided or taken over without compensation. Elder Greyeyes told of her own family's experience:

"There's an old lone pine that, that was where my dad's dad had built that house and farmed that land. But when the Band, in the end – I don't know if it was soldiers – they sold a piece of the land. It was really kind of a theft by Indian Affairs because they sold that land within six months of the end of the War when the Band had been trying to sell just little bits.... when the soldiers came back and the Veterans Board needed that land, they facilitated the sale in months, and they took my grandfather's land – and he was never compensated for any of that. The house, the buildings... my dad, my grandpa, they cried when they sold that land..." (2018)

Although the Veterans' Land Act was created nearly 75 years ago, its legacy continues today through Land Claims proceedings. In the meantime, Deanna Greyeyes's family still does not have their land back.

Another issue affecting First Nations today are Certificate of Possession (CP) lands. These do not confer outright ownership, but rather grant exclusive use to recipient individuals and their families. Both Deanna Greyeyes and Joe Munroe saw the sale of CP land permits as playing an important role in the trend towards the leasing of reserve lands. The amount of land granted in the permit was too small to for First Nations farmers to farm efficiently and compete with off-reserve farmers. These certificates could be sold to third parties, so as a "last resort" many recipients in Central Saskatchewan decided to do so to at least retain some income from their farmland (Buckley 1971). Munroe suggested that most of these permits were eventually held by only a few individuals. Because more permits were held by fewer and fewer people, First Nations that lease lands to non-Indigenous farmers are now in a difficult position. On the one

hand, they see the potential in terminating a lease agreement in order to farm or use the land themselves. But on the other hand, that means losing an important source of income, and trying to find enough community members with the skills needed to work the land.

4.3.1.2 Restricted access to capital

Contributing to the sale of lands were the rising costs of farming, lack of mechanized equipment and insufficient farm size (Buckley 1971) – all essential sources of capital needed to farm at an industrial scale. These factors are evident from Everette Bear’s experiences in Muskoday First Nation. Bear told the story of how when he began farming in 1952 he would struggle to get paid for his grain, since his cheque had to be reviewed by Indian Affairs before he received it.²⁸ He also commented that seeds, machinery and chemicals became prohibitively expensive from the 1970s onwards, a structural barrier that further limited access to markets and capital.

A further ongoing issue for many First Nations farmers is the Bank Act of Canada (1991) that restricts on-reserve, Status Indians (as per the Indian Act) from accessing credit because banks are not able to repossess reserve property. As Clifford Ahenakew’s wife, Leona Ahenakew explained, “Treaty Indians can't... they usually don't have nothing. No assets, and you know... what can you borrow against? You can't borrow against the land, it's not yours. So, people have a hard time getting into anything.” Ahenakew drove a school bus part time and worked in the sugar beet industry for extra income. This enabled him to raise the capital to buy some cattle and slowly build credit from that. Everette Bear built up credit by working and living off reserve. But interviewees made clear that leaving the reserve and finding reliable work is not easy for many First Nations people.²⁹

4.3.1.3 Disrupted knowledge and support systems

Interviewees talked about how residential and day schools, and associated intergenerational trauma, have played a role in disrupting land-based connections and knowledge systems. Alfred Gamble shared that although many residential school survivors have farms or gardens, their children “[seemed] to lose that connection to the land and self-preservation with

²⁸ This experience helped motivate him to work with Chief Dave Knight to petition Ottawa to remove the permit system – which had restricted grain sales – where it was “dropped” in 1953.

²⁹ Laliberte and Satzewich (1999) discuss how First Nations worked [when? Time period?] in sugar beet fields in Alberta for income due to a lack of nearby farm work.

the land,” and this impacted knowledge transfer between generations. Another criticism of the schools was that although many boys received training on how to farm, “training was choring with no training in farm management” (Kennedy 1973).³⁰ Hence, despite their farming skills, they were less well prepared to run a farm when compared to their non-Indigenous counterparts. The education system on-reserve has also been influential. Schools typically separate youth from Elders and their teachings, and First Nations children generally have limited opportunities to get out on the land. As young people have grown up, they have had more opportunities to leave the reserve to pursue post-secondary education. While some, such as Dean Bear and Joe Munroe got post-secondary degrees in agriculture and pursued a career on the land, most of their contemporaries were not interested in growing food and were not learning the skills that they would have needed to do so.

The disruption of Indigenous farming knowledge systems deepened with dissolution of the Saskatchewan Indian Agriculture Program (SIAP), which provided financing and training for First Nations peoples interested in farming from the 1970s to early 2000s (see Box 4.4).

Box 4.4: An overview of SIAP³¹

Text Box 4.4: An overview of SIAP

SIAP was created under the guidance of Alex Kennedy, a First Nations farmer born in Little Pine First Nation. As the first chairman of SIAP – and the second chairman of the former Federation of Saskatchewan Indian Nations (now Federation of Sovereign Indigenous Nations) – he envisioned farming and agriculture as ideal initiatives to regain lands leased out to non-Indigenous farmers and carve out an agricultural economy for Indigenous communities. A significant component of the SIAP strategy was education and training courses to integrate both farming techniques and farm business literacy to prospective First Nations farmers.

Despite Kennedy’s ambition, the program was cancelled in 2002 after nearly 30 years of operation. Archival evidence suggests that while the knowledge and funding provided through this program was useful to First Nations communities, the intent behind the program diverged from their interests and needs. For example, Alex Kennedy’s (1973) SIAP-precursor report focused more on large-scale agricultural crops to generate revenue, discouraging “row crops” for commercial production (14). In contrast, participants in a 1991-1992 training program preferred workshops that were “[available] to other groups ... besides farmers” (S. Gamble 1992, 1). As beneficial as SIAP programming seemed to First Nations peoples, the program was terminated.

Champions and Elders spoke fondly of SIAP. They enjoyed having instructors and agrologists teach them how to garden, preserve foods and use different agricultural techniques. At its “zenith

³⁰ “Choring” is hard physical labour involved in farm work.

³¹ Adapted from the Saskatchewan Agriculture Hall of Fame (2014) and archival sources (Kennedy 1973; S. Gamble 1992).

... [the SIAP] created 600 viable farm units, a marketing company, a loan company and a venture capital company” (Saskatchewan Agriculture Hall of Fame 2014).³²

4.3.1.4 A change in diets and associated health problems

Some Champions spoke fondly of their early years farming and gardening, saying that it was both physically and spiritually fulfilling. However, they also mentioned that it was a lot of work, mostly unpaid. Many families found that they had to forfeit gardening, hunting or foraging activities to find paid employment, usually off-reserve. As Deanna Greyeyes recalled:

My dad used to butcher something ... that would keep us for the winter yet, or [he would] butcher as needed because my mom said it was always really hard when we moved off the reserve. She said ‘it’s a good thing you kids like cornflakes’, because my dad didn’t make much money when they first moved off, and she said before they could just go to the chicken coop and [get] eggs; go to the garden and get food. (2018)

Without access to their own local food sources, families had to buy processed foods that were more affordable but much less nutritious (Garantula et al. 2015). Many made regular trips to nearby towns or cities to get groceries to feed their families, and often opted for cheaper foods with longer shelf-lives over more expensive fresh produce (Abbott 2018). Glenda Abbott saw this shift towards less-nutritious foods as linked to increased exposure to television commercials in the 1980s. She, and other First Nations Champions, recalled watching TV in the 1980s and seeing flashy commercials for foods they had never encountered before. Glenda cited the sudden popularity of breakfast cereals as an example. Greater dependency on cheap, processed foods led to a relatively rapid shift in diet, which has subsequently led to chronic health issues in local First Nations. Diabetes, obesity, heart disease, are among the most prominent chronic health issues affecting First Nations in Canada. (Ready 2016; Harder and Wenzel 2012; Public Health Agency of Canada 2011). Such issues are affecting not only older people, but also increasing numbers of youth, for whom unhealthy foods often form the backbone of their diet. This problem is exacerbated by limited access to local and healthy fresh produce, not having enough income to buy such foods and a lack of knowledge and skills needed to cook or preserve fresh foods.

³² The origins and most information about the program were difficult to track, but they adhere to a report created by Kennedy which set the stage for the SIAP program and 4-H chapters on reserves.

4.4 Chapter summary

This chapter identified the scope and characteristics of the FNFFP sector in Central Saskatchewan, some of the supporting organizations, what is driving current interest, and how past experiences both inhibit and underpin what is happening today. According to Elders, Champions and historical literature analysis, First Nations peoples in Central Saskatchewan continue to grapple with the colonial legacies of the past, which over time led to a loss of land and capital, disrupted local land-based knowledge systems, changed people's diets and increased the incidence of poor health. These shifts increased First Nations' dependency on the state, market economies and an industrial food system. Such a historical backdrop frames today's FNFFP sector, where we find that around a third of local First Nations employing a variety of strategies to grow food on reserve. They are doing so for different and often multiple reasons, which range from improving health to strengthening land-based education, youth and Elder engagement and (Indigenous) economic development. In the next chapter, I explore how First Nations communities and Champions are addressing barriers to growth in the sector, and how they are using innovative strategies in FNFFP initiatives to break the cycle of dependency and work towards their community development goals.

CHAPTER FIVE: GROWING THE FNFFP SECTOR

This chapter highlights the challenges that First Nations face within the FNFFP sector, and how Champions and supporting organizations are working to overcome challenges and foster sector growth. I used interview, workshop and participant observation data to look at the struggles of First Nations in Central Saskatchewan to expand farming and food production operations and networks, and how they have responded – or are looking to respond – to perceived barriers and challenges. In the first section, I describe the complex barriers to sector growth, including land and market access, difficulties meeting labour needs, a lack of interest or familiarity with growing food, issues around governance, politics and bureaucracy and inaccessible or inappropriate funding sources. In the second section, I focus on what interviewees and other research participants felt were the areas of innovation that are helping First Nations to overcome those barriers. This innovation involves changing how development is conducted with First Nations, such as weaving their heritage, history and culture together with new ideas and technologies. The third and final section centres on the role of Champions and supporting organizations in mobilizing farming and food production initiatives, including their contribution to building networks and capacities. While the future of the sector is uncertain, with change and greater support needed, this chapter highlights Central Saskatchewan as an interesting site of innovation and transformation of Indigenous food production and food systems.

5.1 Barriers to growth

Significant barriers to growth can be organized under five main categories: i) access to land and markets, ii) difficulties meeting labour needs, iii) lack of interest in growing food, iv) Band governance, politics and bureaucracy and v) inappropriate and inaccessible funding streams. While they have been separated here for purposes of analysis, these barriers often tie in or overlap with one another, and their relative impact across First Nations communities varies in accordance to community experiences. I look at each in turn.

5.1.1 Access to land and markets

The realities of a restricted land base have arguably encouraged First Nations to develop or promote small-scale initiatives, such as community gardens and market garden operations. However, while several such ventures have emerged, geography can constrain access to markets

to sell their produce. Some initiatives like the Riverside Market Garden at Flying Dust First Nation or the tunnel gardens at Isle-a-la-Croisse have been able to sell produce directly to food service companies or at markets (field notes April 9 2019). However, if a First Nation was to have surplus produce available to sell off reserve, the closest markets would be in nearby towns with a small client-base. Furthermore, as most initiatives have been Band-run, revenues are not normally distributed to individual growers and sellers of the food. Under such a model, any food production initiative would need to be scaled-up before it could be considered a viable income-generating strategy for a First Nation.

One strategy that can potentially add value and generate higher revenues is a move into certified organic food production. The principle behind this strategy is that organic foods can be sold at a premium to higher-income consumers compared to conventional foods. Champions like Cliff Ahenakew and Glenna Cayen also believe organic food is better for the land and people. But this comes with its own set of market barriers. As Len Sawatsky explained, using Flying Dust's Riverside Market Garden as his example, "[the Band's orientation [is] making lots of money ... and then when it doesn't happen right away, then people get disappointed... when the big players don't buy your stuff or, or undercut you, and give you a whole lot less for your potatoes than what they're worth, where do you go?" In the 2018 season, Flying Dust downsized their operations from 25 acres of potatoes along with several acres of other produce to twenty acres of potatoes and a smaller garden for other produce, which was sold to ThomasFresh for sale and local consumption (Tecklenburg 2018). The downsizing was partially attributed to market entry difficulties and realising the potential value-added from going organic. In short, the reality of a reduced land base may dictate whether a FNFFP initiative can scale up to a level where they could access and compete in target markets in the region. Without these secure markets, initiatives like the Riverside Market Garden cannot meet their revenue targets and generate growth.

5.1.2 Difficulties meeting labour needs

A longstanding and ever-present issue affecting FNFFP initiatives has been the difficulty in sourcing and maintaining a reliable workforce, whether paid or unpaid. Champions and Elders alike recalled labour issues in the past, and how they continue to impede development in First Nations communities today. As Deanna Greyeyes shared, "one of the things we've always seemed to have difficulty with is we've tried community gardens – and it's the labour – people

just wouldn't come out and work.” The Champions talked about the importance of reliable labour for FNFFP initiatives to work. Yet encouraging and maintaining a labour force is an ongoing struggle, because of a combination of factors, including having ready access to welfare payments to the seasonal nature of farm and garden work. The reality of seasonal, rather than year-round, work limits how many hours and for how many months workers are hired. Committing to do the work can take labourers away from other sources of income, including those off-reserve. For Glenna Cayen, the problems associated with seasonal work has been an issue for Muskeg Lake and its food forest, where workers are needed to help prepare the land for tree planting and building a perimeter fence. She noted how hard it was to rely on a regular group of workers. Furthermore, many potential workers are low-skilled and low-income. For these individuals, working too many hours or earning above a certain income threshold means that they could see household energy subsidies cut off (field notes, August 14 2018).

Another issue affecting worker support was the rate of turnover in the various Band departments (e.g. Health, Lands, Economic Development, etc.), as well as Band council, that are often responsible for spearheading or collaborating to support FNFFP initiatives and fix problems when they arise. For example, Muskeg Lake’s food security committee has representatives from Band Council, Lands, Early Childhood Education, Health and Maintenance. However, such committees can cease to function well when committee members leave their main work positions to seek or take up employment opportunities elsewhere. Retaining skilled people on reserve is an issue that affects First Nations in general by placing a greater burden on others to take on extra work and responsibility. This burden can lead to burnout and potentially undermine an initiative. As Erika Bockstael, from Canadian Feed the Children, notes “in most places it's not like someone's job is to coordinate food security programs. A lot of it is in addition to people's existing responsibilities and people are usually extremely busy.”

A final issue is the reliance on, yet unreliability of, unpaid volunteers. As Dorothy Ahenakew of Ahtahkakoop Cree Nation shared, “I need more support, especially from our community members. More involvement. It seems like... it's a good thing, but [there's] not enough helpers.” Alanna Remmen at Beardy’s and Okamasis decided to move away from using the community garden and volunteer model, as she found that too many people would come to help plant, but would then disappear over the summer and not be available for weeding and day-to-day maintenance of the garden. Without a consistent volunteer workforce, a large community

garden became overwhelming to manage. For FNFFP initiatives, the scale of an initiative should necessarily match the level of community interest and investment. As Frank Tecklenburg explained: “the really important part is that the community buys in; the [Band] Council buys in.” However, the issue of community membership and Band interest in an initiative is not straightforward and are discussed further in Section 6.4.4 (Chapter six).

5.1.3 Lack of interest and familiarity in growing food

Many labour supply problems can be attributed to lack of community member interest and familiarity with growing food. However, any such lack of interest runs deeper than stereotypes of indifference and laziness, and is tied to poverty and inequity on reserves. Len Sawatsky and Frank Tecklenburg reflected that those who are low income and less mobile (i.e. they do not possess a vehicle) are often accustomed to cheaper, processed foods, while Dorothy Ahenakew added that they are unable to participate in community gardens without transportation assistance to and from the site. Those with a vehicle can leave the reserve more readily and are, therefore, potentially less reliant on a local garden for food. As noted previously, low-income residents may be disincentivized to work in a FNFFP initiative (where one exists), while those who are better off are often involved in more lucrative opportunities off-reserve. These realities can limit the degree of community-wide support for, and participation in, FNFFP initiatives.

Champions also noted how those individuals on social assistance and welfare can struggle to engage with FNFFP initiatives. Their struggles are rooted in feelings of negativity and low self-esteem. Dorothy Ahenakew explained how, when she was younger, “I had no vehicle, I couldn't see [other community members'] gardens and I was on welfare I really didn't like being on welfare.” Although Ahenakew was able to motivate herself and work her way off welfare, others struggle to wean themselves off such dependency. The problem of dependency was mentioned as far back as Alex Kennedy's 1973 report, which pointed to a “chronic dependence on welfare and a loss of ambition and pride of accomplishment as the full impact of the hopelessness of the situation is realized” (17). Champions like Len Sawatsky believe that the psychological impacts of living on social assistance are hard to undo, because “if you've been dependent upon social assistance for some time, there are reasons why. And there's baggage that's part of that. And you're seen as lower in the community.” This sentiment was shared by Dean Bear of Muskoday First Nation, who characterized “the mindset that, ‘well, why do I have to work this hard? I'll just go get a welfare cheque.’ That's the unfortunate

outcome...Otherwise, we would have more people farming our reserve and on our First Nation [but] people have lost work that work ethic and they've lost the pride to be able to grow their own gardens.” Without generating a sense of pride and familiarity in growing their own food, FNFFP initiatives will continue to struggle, if not fail.

5.1.4 Governance, politics and bureaucracy

Band Councils often play a crucial role in providing resources and support for FNFFP initiatives, and remain a key actor in the sector’s growth. Yet a significant barrier in the eyes of several Champions was the reliance on Band Council for funding and support, which makes FNFFP initiatives vulnerable if and when Council changes and support wavers. The experiences at Flying Dust and Cumberland House are a testament to this, where the termination or downsizing of their market garden operations was directly attributed to a change in Band Council (Sawatsky 2018; field notes April 9 2019). To try and reduce this vulnerability, Frank Tecklenburg noted that while “Chief and Council [to] have a part in what happens in that group... that group needs to be standalone.” It is also important that there is full engagement with the broad community membership at the planning stages of an initiative, thereby building a sense of solidarity and support that can more easily survive changes in community leadership. As Len Sawatsky reflected, “I [wanted] to see a little bit more involvement from the community. I think if there were [more people involved], they wouldn't have let Chief and Council get away with the decision to scale down.” Similarly, Alanna Remmen from Beardy’s and Okemasis cautioned against relying too much on other Band departments for their involvement in an initiative, as coordinating schedules and priorities between multiple departments is complex and can stall an initiative’s progress. In other words, Champions suggest that success requires striking a careful balance between gaining the support of Band departments, while affording sufficient autonomy and resource to those spearheading an initiative.

The provincial and federal governments were also criticized by Champions for their frustrating bureaucratic processes and lack of support for FNFFP initiatives. This includes the regulatory shackles and bureaucratic hurdles of the Indian Act and Bank Act, which make it difficult to establish new initiatives on-reserve. Others pointed to the barriers of the Indigenous Services (IS) and Crown-Indigenous Relations ministries of the federal government. As Ahtahkakoop farmer Cliff Ahenakew shared, “with [Indigenous Services], you shut up. They're a tool of the government. [IS is] told what to do [by the government]. We argue with them, we

fight with them, but they have to carry out their mission... of course everything has to go through Regina or Ottawa.” For Indigenous people like Ahenakew, IS stymies on-reserve development. Some scholars have argued that these processes are part of a wider bureaucratic government goal to subjugate Indigenous communities under the control of the Canadian state (Alfred 2005; Palmater 2015). As Len Sawatsky explained: “I spent two thirds of my time just satisfying all their conditions in the grants that they did give us... and not just me - Band staff, the director of finance, spent oodles of time creating documents.” He felt that scarce time and resources could have been much better spent on growing Flying Dust’s Riverside Market Garden. Action is needed by Band Councils and governments alike to better streamline and support FNFFP initiatives if they are to succeed in the future.

5.1.5 Inappropriate or inaccessible funding

Another issue that Champions highlighted was how certain funding streams – nominally oriented towards First Nations agriculture and food production – were not in fact appropriate for, or did not match, the type or scale of initiative that communities were trying to establish. This was a major topic of discussion at the Champions Workshop. As Len Sawatsky recalled:

“Indigenous and Northern [Affairs]... wouldn't fund it. And uh, and so then we decided to go to the big corporations in Saskatchewan. I chose 40... and Potash Corp. responded ... The Senior Vice President said, ‘this is the kind of project we're looking for. We'd love to put some money towards this, but you have to drop the organic’.... I said I wouldn't take it; I'd walk. And [the Federation of Sovereign Indigenous Nations’ Indigenous Economic Development Officer] says, ‘that's what I feel too.’” (2019)

Even when public grants were available, many came with restrictions over the costs or activities they supported. Alanna Remmen and Len Sawatsky explained how they could get funding for health or infrastructure-related grants, but grants to pay for labour were much harder to obtain.³³ Erika Bockstael highlighted that communities rarely received “enough for everything they need”, a point echoed by Frank Tecklenburg at the Champions Workshop: “Each [Federal Ministry] says, ‘well, that's above my limit of my million, so you don't get that,’” which he attributed to “the separation of the government [ministries].” For Frank, it was a lack of coordination among

³³ This was an issue for La Loche’s cold frame tunnel, where they could get funding for the tunnel, but nothing to pay for employees to work there (field notes, April 9 2019).

federal ministries that was preventing First Nations from accessing the kinds of funding streams and amounts needed for getting many initiatives off the ground.

The Saskatchewan First Nations Economic Development Network (SFNEDN) has shown past interest in supporting various First Nations economic development-related initiatives, including market garden co-operatives (SNFEDC 2015; field notes, December 18, 2018). However, SFNEDC is less visible in the sector today. The National Indigenous Agriculture Association (NIAA) is another organization that supports First Nations farmers. However, based on my interpretation of their presentation at the Indigenous Agriculture Forum on December 18, 2018, they seem to do little more than point prospective farmers in the direction of Farm Credit Canada (FCC) and Agriculture and Agri-Food Canada (field notes, December 18, 2018).

The irony of having problems getting funding in an agricultural province like Saskatchewan was not lost on the Champions. While government support and subsidies to large-scale, conventional farming operations are well established, such funding is rarely something for which First Nations and FNFFP Champions can apply. Sometimes applicants are ineligible, but in other cases, it's the amount and nature of the work needed to prepare and submit a grant application that makes it unattainable. As Erika Bockstael, from Canadian Feed the Children, explained: "You need to have good communication materials, nice pictures, stories. The slick looking brochures, the nice websites... you need staff... office space and equipment and then you need to have a team for fundraising... and finance. So, there's a lot of that has to be in place for this to happen." Champions also noted how the language used in associated documents and process was rarely oriented towards a First Nations audience. This made it difficult for First Nations to understand what was being asked of them and limited their ability to clearly demonstrate the viability and impact of a proposed initiative. As Bockstael also shared, "internationally, you usually have these massive proposals and you have to have these logical frameworks and have all your indicators and outputs and outcomes, and they're really complicated... but with social, complex kind of projects, you're fitting things into these boxes that are very linear... it doesn't always work." Governments, their subsequent ministries, and supporting organizations need to adjust their funding streams and models to better accommodate development realities in a First Nations context if they want to aid growth of FNFFP initiatives.

5.1.6 Section summary

This section identified key barriers to growth affecting the FNFFP sector in Central Saskatchewan. Inconsistent labour is one barrier, aggravated by: reliance on welfare and subsidies; the seasonal nature of farm and garden work; labourer turnover and out-migration; and burnout. Other barriers coincide with a lack of interest and familiarity with growing food attributed to poverty and the legacy of dependency created by the welfare system. Initiatives falter as support from Band and Council wavers, and government bureaucracy takes up valuable time and resources. Lastly, current funding sources and programs can be inappropriate and/or inaccessible to FNFFP initiatives, often not aligning well with the values and development goals of First Nations. Such barriers, often working in tandem, continue to challenge growth in the FNFFP sector.

5.2 New innovations and directions in FNFFP

In this section, we look at some of the things that communities, individuals and organizations are doing to overcome barriers and carry their FNFFP ambitions forward. This can require innovation and a willingness to do things in new and creative ways. Three main sources or areas of innovation, or potential innovation, were identified: i) permaculture design, ii) changes in how support organizations work, and iii) FNFFP as a tool of what I term “Indigenous-centred” development. I look at each of these in turn.

5.2.1 Permaculture design

Permaculture is based on harmony between humans and nature and the contribution rather than disruption that humans can make to ecosystem health (Brown 2012). Although it is not an Indigenous concept, several Champions in Central Saskatchewan have used or encouraged permaculture design in their food production initiatives, because it is seen as complementing with Indigenous understandings of relationships between people, food and nature. This is illustrated well by Muskeg Lake Cree Nation’s food forest (see Text Box 5.1).

Box 5.1: Permaculture design and the Muskeg Lake Cree Nation food forest

Steve Wiig from Holistic Landscape and Design, who led the design of Muskeg Lake’s food forest, defines permaculture design as: “*creating productive spaces which are both functional and inviting, all while benefiting the Earth.*” (Holistic Landscape and Design 2018). Glenna Cayen notes how the design, unlike that of previous community gardens, is such that upkeep of the food forest does not involve an overwhelming amount of work or responsibility.

In terms of land access, the food forest is located on communal lands where all community members can access it and use the food that is grown there for themselves, their families or for the community as a whole. For the community members that I spoke with, it is hoped that it can help them address market access issues by supporting Indigenous economies, such as local, internal sales of produce to the school kitchen and visitors, along with future trade with neighbouring First Nations for other goods. In this sense, it also intends to build community capacity both within and between First Nations.

The vision is for the food forest, and the permaculture design that inspires it, and to help a local First Nations in Central Saskatchewan to renew its relationships to the land and its capacity to sustain. Glenna, and the other Champions and community members involved in this initiative, wanted the food forest to build capacity and go beyond addressing the lack of local access to affordable, healthy food. It was also intended to be a social space of learning and healing for community members and visitors alike, and withstand environmental change (particularly climate change), as well as confront social barriers in the community. Access to free, nutritious food will help alleviate poverty and a dependency on social assistance and inspire a renewed interest and pride in growing their own food. For Muskeg Lake, the food forest is envisioned as the nexus for land-based education, intergenerational knowledge transfer and food sovereignty. Elder Deanna Greyeyes hoped it would encourage community members to create greater individual and collective respect and responsibility through “valuing food, valuing that you get food from trees and the ground.”



Plate 5.3: ‘Mother tree’ sapling at the Muskeg Lake food forest, October 2018

Further, as Frank Tecklenburg shares, permaculture design seems to be well suited to the social and economic realities of many First Nations:

“if anyone makes an orchard ... it requires incredible time, ... additional equipment [and] potentially chemicals and sprays and other items that are, in my opinion, not necessarily healthy ways of growing... [but permaculture design is] a way of growing [that] allows for an interaction of people – you don’t have to just be a farmer; you can take your kids there, the Elders can come there. It can become a place of rest, of tranquility.” (2018)

Permaculture initiatives can help shift food production from labour-intensive set-ups to the creation of spaces where not only food is grown but people can come together, receive therapy, learn and socialize.

5.2.2 Changes in how support organizations work

Chapter 4 identified a range of community-run, civil society, private and government organizations and programs that currently support or have supported the FNFFP sector and related initiatives. Table 5.1 highlights those organizations and programs that interviewees suggested have changed the way that they do things, have emerged to help First Nations address specific barriers to growth or show the potential to do so. The existence of these organizations is not in and of itself innovative, but the way that they are orienting their work does signify something different to how they have typically operated in the past.

Table 5.1: Support organizations addressing barriers to FNFFP today

Sector	Organization	Support for FNFFP sector	Innovative practices
NGOs 5.2.2.1	Canadian Feed the Children (CFTC)	MLCN food forest; ACN community/school garden; BOCN backyard gardens/chicken coops	Community-based development in a First Nations context; engaging youth with food production
Government/ Public 5.2.2.2	Health Canada	Grants; health centre resources and programming	Flexible funding; food and nutrition related support
	University of Saskatchewan - College of Agriculture & Bioresources, Gardenline	Crop/seed development Research Garden support network	Indigenous academic programs Indigenous community outreach and support
Private 5.2.2.3	EarthConnections	Gardening workshops; tower gardens; consultancy	Capacity-building for youth and other community members
	Holistic Landscape and Design	Landscape consultancy and permaculture design; MLCN food forest	Indigenous values in landscape design
	Northern Konstar	Seed potatoes	Potatoes adapted for FN communities
Indigenous 5.2.2.4	National Indigenous Agriculture Association (NIAA)	Network for FN farmers, resource hub	Indigenous farming organization
	Saskatchewan First Nations Economic Development Network (SFNEDN)	Funding, support resources for FN enterprise	Indigenous investment capital

5.2.2.1 Non-government organizations (NGOs)

Champions noted the increasingly important role of NGOs in the sector, offering First Nations an important degree of flexibility and oversight in how they design their FNFFP initiatives, use funds and set goals. As one Champion commented during the Champions Workshop, “as long as you have local control, take their money.” Anthony Johnston, of Mistawasis Nehiyawak, argues that some NGOs have been better than government departments at seeing “the bigger picture” and not being “locked in their boxes”. The Champions applauded NGOs such as Canadian Feed the Children (CFTC) for adopting and promoting an iterative planning process with partner First Nations. CFTC Canada Programs Director Erika Bockstael, noted how, “we're working with set departments of health or education or schools and they haven't worked with [massive development proposals],” and so CFTC has been adapting its global model to accommodate First Nations in Saskatchewan and across Canada. She also explained how CFTC’s Saskatchewan projects are unique because “we have this real cluster where we had three staff in the community in three communities that were close to each other” and highlighted the advantage of hiring staff that are not tethered to a specific Band department (i.e. Health, Education). “I don't know if the food forest would have happened in another community where we were tied to a department,” Bockstael said, “because then we'd be more linked to their programming,” which would not be able to reach the whole community. The emergence of NGO organizations like CFTC help to fill a gap because of inadequate and inappropriate government support.

5.2.2.2 Government/Public organizations

As noted in section 5.1.5, Champions saw government-sourced funding as often restrictive and inflexible. For Champions, the federal government has generally had few support programs in place that did not suffer from compartmentalized government departments or ministries, which functioned independently of one another and rarely collaborated well in those sectors where they did overlap (e.g. Indigenous Services, Agriculture and Agri-Food Canada (AAFC)). In these instances, a FNFFP initiative may get funding from Health Canada, yet it will not be supported by Indigenous Services because of differing mandates. This outcome can leave an initiative under-supported financially, and only capable of addressing one area of a more holistic community development approach. Yet, some individual ministries have provided more flexible and contextualized support. One example is the AAFC’s Strategic Partnership Initiative

(SPI). As part of the SPI, they created the Aboriginal Agricultural Initiative (AAI), which ran from 2010 until 2013 in British Columbia, Ontario and Saskatchewan, and provided funding for the Riverside Market Garden (Government of Canada 2015).³⁴ Similarly, Health Canada supported Alanna Remmen in establishing a backyard gardens program at Beardy's and Okemasis. Frank Tecklenburg mentioned that other health-related organizations, such as the Athabasca Health Authority, have used healthcare funding streams to support FNFFP through their nutrition and food-related programming.

At the provincial level, publicly-funded institutions in Saskatchewan traditionally provided only limited support to the sector. Where help has emerged is in the area of technical advice and training. Len Sawatsky commented that “Excellent agriculture advisors” and agrologists at the Ministry of Agriculture and the University of Saskatchewan were an important help to Flying Dust's Riverside Market Garden. For First Nations in the province, the University of Saskatchewan, and the College of Agriculture and Bioresources in particular, has become a source of seeds and crop varieties well adapted to Saskatchewan's climate and soil conditions. The University's Gardenline program is providing important online advice and in-person workshops to assist people with their gardening initiatives. Alanna Remmen used them to support gardeners at Beardy's and Okemasis. These support services were seen as helping First Nations transition towards self-supported projects and demonstrate the important role public organizations have in growing the sector.

5.2.2.3 Private organizations and corporations

Businesses have begun to play a role in getting FNFFP initiatives off the ground by providing design, technologies and specialist training to community members. Frank Tecklenburg, of EarthConnections, spoke about their Garden Tower technology. For him, the technology not only allows families to grow fresh produce in their homes year-round, but empowers “the people to do it, as opposed to [growing food] becoming an entitlement issue.” In essence, the garden towers could help community members incorporate the growing of food into their day-to-day lives, and to do so in a way that is relatively accessible to families across income levels and with differing levels of prior experience with growing food. EarthConnections has also been welcomed by First Nations in Saskatchewan because of an explicit focus on engaging

³⁴ They also funded Little Black Bear First Nation's Saskatoon Berry production facility, Black Bear Orchards, in Southern Saskatchewan.

youth: “it’s not only about growing food: it’s about the therapy that goes along with it, and bringing the children back into the decision-making.”

Design and specialist training are also important private-sector contributions to FNFFP initiatives. Steve Wiig, of Holistic Landscape and Design, was hired by Muskeg Lake Cree Nation to design its food forest. He also supervised seasonal workers to help plant trees, and taught local youth and other community members how to care for the food forest over time.³⁵ Although the company has been operational for several years, they have only recently started to work with Indigenous communities in Saskatchewan. He brought in needed permaculture and landscape design expertise, helped build capacity by teaching youth and other community members how to plant and care for the trees and supervised workers from the community to prepare the space for planting.

For initiatives at different scales, private organizations will likely play a pivotal role in the growth of the sector. But not all are well aligned to meeting First Nations’ needs. Frank Tecklenburg mentioned that at the larger scale, companies like Northern Konstar have shown an interest in developing potatoes that can grow in northern climates and that are diabetic-friendly. Grocery chains, such as Sobeys, and food service companies, such as ThomasFresh, have shown interest in sourcing foods from First Nation communities. Yet little has been innovative about their involvement to date, with such large-scale investment often requiring First Nations to meet company distribution and procurement conditions, rather than the other way around.

5.2.2.4 Indigenous organizations

While Indigenous organizations like Saskatchewan Indigenous Economic Development Corporation (SIEDC) and National Indigenous Agriculture Association (NIAA) continue to support and advocate for FNFFP initiatives (SIEDC 2015), most Indigenous organizations like the Saskatoon Tribal Council (STC), Prince Albert Grand Council (PAGC) and Federation of Sovereign Indigenous Nations (FSIN) are currently not visible in the sector, despite the FSIN’s past support for the Saskatchewan Indian Agriculture Program (SIAP). This is an area for improvement. Frank Tecklenburg mentioned that in Northern Saskatchewan and Manitoba, Indigenous organizations like Kitsaki Partnerships Ltd. and Meechi Foods Inc. are already working to have an influence on the FNFFP sector. Such organizations can support First Nation

³⁵ He and Tecklenburg also collaborated on designing and planting a medicinal garden at Stony Rapids in June 2019.

market access and help meet labour supply because of the way that they work across multiple First Nations and create regional advocacy and networking capacity.

5.2.3 Food for “Indigenous-centred” development

The FNFFP sector in Central Saskatchewan is in a position to grow not just because First Nations are better able to access training or technologies for growing food, or have support now that was not available previously, but also because of the way that food and food production have become a focal point within the broader remit of Indigenous community development. First Nations in the region are viewing food not only for consumption (although that remains important), but also as a way to help communities preserve and carry forward their Indigenous heritage and identity, build skills, and, most critically of all, strengthen sense of pride, ownership and independence as First Nations peoples. This may not resonate as innovation in the conventional sense of the word, but it is something that several Champions focused on when asked what was innovative about the sector today.

5.2.3.1 Growing food and Indigenous heritage/identity

Glenda Abbott’s seed saving workshop highlighted the link between growing food and Indigenous identity in Central Saskatchewan and reframed what makes it “Indigenous”. Abbott noted how many heritage or heirloom seeds carry important stories, which are passed on through their genetic material and the peoples that cultivate them. While most seed varieties used in this region have come from elsewhere, they remain a crucial currency and store of value for Indigenous peoples. For Abbott, gardening and growing food is, or needs to be, a key part of Indigenous heritage and sovereignty moving forward. “[I]f it wasn't our way before,” Abbott said, “we need to adapt and respond from others who have lived on the land for a long time... we didn't stop adapting when the Europeans/colonizers came.” This is a reminder, I think, that gardening or growing food is not only a colonial tool, but also a part of First Nations tradition and culture. Abbott was making the point that First Nations are aware of their history (of growing food) and that growing their own food can strengthen their heritage and identity. Current interest in food production today means moving away from a colonial model, and especially intent, towards growing food and what Indigenous peoples can do with it.

Frank Tecklenburg highlighted “traditional” and “Western” ways of growing food in the past and how that cultural and biological heritage can be applied today:

“I think that the cultural component of the history is important, but not necessarily the “how” to do it or how it was done in the past... foraging and hunting and gathering are also forms of farming.... in my opinion, that have been done for millennia here. So, we’re looking here now at combining and bringing together some of the “conventional” methods, or the more modern-day methods of farming along with what was methods of farming used in the past.” (2018)

For Champions like Tecklenburg and Abbott, the tools and technologies used in farming and food production initiatives today is less important than how these activities enrich and enshrine Indigenous identities, and contribute to, but do not detract from, Indigenous culture and ways of life. Abbott mentioned that her interest in Indigenous food systems came from Indigenous scholar and activist Winona Laduke who “made me realize the depth of our food, spiritually, culturally, like our integrity, our ethics ... everything,” and is working on “rebuilding” an Indigenous food system “running parallel” to the existing, dominant Western one in the region. For Abbott, by growing food themselves, First Nations are “rebuilding” a critical part of their culture and opening new spaces for what “Indigenous” or “First Nations” foods and food systems are in the 21st century.

5.2.3.2 “Indigenous-centred” development and empowerment

Champions argued that FNFFP projects need to be “simple and accessible” as well as “small and manageable” so that people can easily participate and maintain interest, rather than get overwhelmed. The failure of previous farming and gardening initiatives were often attributed to the scale at which families and farmers were encouraged to produce. Community gardens were too big, while farms needed to be bigger. Another failure of farming in the past was that it did not incorporate how the foods being grown fitted into an Indigenous food system. In addition to being “simple and accessible”, several current FNFFP initiatives are taking a more holistic approach to food production; as Alanna Remmen shared, “from start to finish”. For example, the backyard garden and chicken coop initiatives included training so “the community members could learn how to do everything independently from seed to table”.³⁶

For several Champions, the success of FNFFP initiatives is about getting the scale and local involvement right. An example is Cumberland House, where unemployed men were

³⁶ Another example is from La Loche, where a community kitchen uses produce from the garden to provide fresh, healthy and free food for community members and has already provided training for cooks and 50-60 volunteers on how to prepare meals with the produce (field notes, April 9 2019).

encouraged to become skilled gardeners. They became “pillars of the community” as a result of taking on responsibility and leadership for the garden (field notes, April 9 2019). Alanna Remmen encourages a “positive sharing environment, where people want to share their expertise and rewards with each other,” which leads to a spillover effect of others in the community starting their own gardens. Some FNFFP initiatives have gone as far as using social assistance funding to support employment in the community for the initiative. Joe Munroe spoke of the Muskoday Workers Organic Co-op in the early 2000s, which used money designated for social assistance to train and pay people for six months. “Every single person that was employable applied,” Munroe reflected, “You put them all to work for the summer growing hemp, seed, potatoes and vegetables. And the money we made was profit; sales.”

In the workshop, the Champions also highlighted the importance of going to the community first to make yourself well known so that you know what people’s priorities are, what you can do for them and how to find other Champions with whom to connect. Len Sawatsky commented on the critical role of women in leading community initiatives. “In any project,” he said, “my suggestion is that... you go to those women and bring them together and over food and present your idea to them and see what they say. And those women, that group of people that, will probably be the champions of the project”. Dorothy Ahenakew reflected on how she inspired some of her garden volunteers, saying “[Memories of gardening] just came back and they were just like, ‘Wow, I missed this,’ – they forgot how it feels – ‘this is something I haven’t felt in a long time, like to plant the seed and see it grow.’” The Champions found that inspiring community members to take a leadership role creates a ripple effect through the community, gives momentum to the project and helps create a reason to stay engaged in the project and work in the community.

5.2.4 Section summary

This section explored the main sources and drivers of innovation in the FNFFP sector today, including the use of permaculture design, the role of support organizations, and using food to underpin community development approaches. All look to foster greater community engagement with combining FNFFP initiatives with education, employment and empowerment. The final section elaborates on the role of Champions in growing the FNFFP sector.

5.3 Champions, networks and capacity-building

Champions are the individuals who are proving instrumental in establishing new FNFFP initiatives, strengthening existing ones and driving growth and innovation in the sector. In this section, I explore the nature of their work (Section 5.3.1), the networks that they form or are looking to build (5.3.2), and the individual and collective efforts to build capacity in the region for long-term sustainability of the sector (5.3.3).

5.3.1 Who are the Champions? What is the work they do?

Table 5.2 outlines the list of Champions interviewed for this research, including parameters for age range, gender, ethnicity, affiliated organization or occupation and their home First Nation, if applicable.

Table 5.2: Champions of FNFFP in Central Saskatchewan

Name	Age range	Gender	Ethnicity	Organization/Occupation	First Nation
Glenda Abbott	30-40	F	Indigenous	Educator/consultant	Pelican Lake
Clifford Ahenakew	+80	M	Indigenous	Farmer (semi-retired); Ahtahkakoop	Ahtahkakoop
Dorothy Ahenakew	50-60	F	Indigenous	CFTC; Ahtahkakoop	Ahtahkakoop
Patricia Ballantyne	40-50	F	Indigenous	Early childhood education; Muskeg Lake	Deschambault
Dean Bear	50-60	M	Indigenous	Lands Manager; Muskoday	Muskoday
Everette Bear	+80	M	Indigenous	Farmer (retired)/former Chief/Councillor; Muskoday	Muskoday
Erika Bockstael	30-40	F	Non-Indigenous	CFTC	N/A
Glenna Cayen	50-60	F	Indigenous	CFTC; Saskatchewan	Muskeg Lake
Gord Enns	50-60	M	Non-Indigenous	Heiffer International (formerly)	N/A
Alfred Gamble	50-60	M	Indigenous	Lands Manager; Muskeg Lake	Beardy's and Okemasis
Joe Munroe	50-60	M	Indigenous	Riverside Market Garden (formerly); Councillor, Muskoday	Muskoday
Alanna Remmen	30-40	F	Non-Indigenous	Dietician, Willow Cree Health Centre; Beardy's and Okemasis	N/A
Len Sawatsky	60-70	M	Non-Indigenous	Manager, Riverside Market Garden (formerly); Flying Dust	N/A
Frank Tecklenburg	50-60	M	Non-Indigenous	EarthConnections	N/A

The Champions are a mix of women and men from both non-Indigenous and Indigenous backgrounds. All were older than 30 years old. Some work independently, or on behalf of community or non-governmental organizations operating at different scales. Nine of the fourteen individuals self-identified as Indigenous, and most lived on reserve where they supported local

FNFFP initiatives.³⁷ Figure 5.1 shows the network of FNFFP Champions in Central Saskatchewan, including their different roles/occupations/backgrounds. The medal design signifies how each plays a leading role in the sector. They are an informal network in that many of them talk to, and support, each other, and often collaborate on initiatives, but there is no official structure to their relationship.

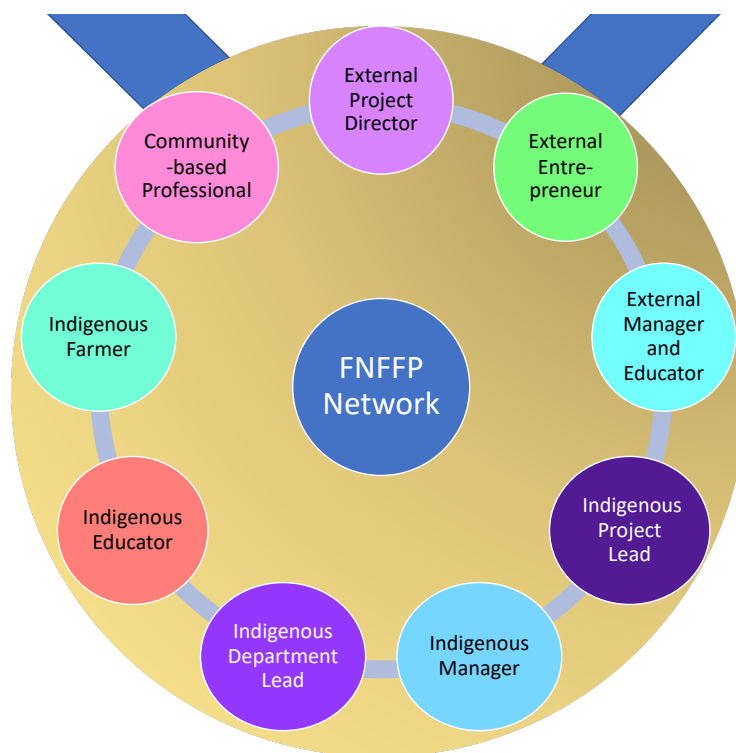


Figure 5.1: FNFFP Network of Champions in Central Saskatchewan

For eleven of the fourteen champions who participated in this research, their occupation is directly related to their role as a Champion in the FNFFP sector. Canadian Feed the Children (CFTC) Community Program Coordinator, Glenna Cayen, would be one example. Others are Champions by playing a supporting role in facilitating FNFFP initiatives. Examples are Land Managers like Dean Bear and Alfred Gamble, who have administrative roles on reserve with other directives, or Erika Bockstael who supports FNFFP initiatives under her portfolio of projects with CFTC.

³⁷ The “Indigenous Educator” champion is an exception, as she travels to various Indigenous communities.

5.3.1.1 Indigenous Champions

Most Indigenous Champions often attributed their skills and inspiration to their work on farming and food production initiatives, as well as their post-secondary education or vocational training. For example, Dorothy Ahenakew went to culinary school and grew up with a family garden. Glenda Abbott earned a Master of Education and grew up gaining Indigenous knowledge around seeds and midwifery. And Dean Bear studied Agriculture and Agri-business and has been both a farmer and a lands manager. Because of their diverse experiences, other Champions and community members see them as valuable leaders and knowledge-holders. As Dorothy Ahenakew reflected, “[*other Champions*] have a lot of knowledge and I really want that for myself to help my people. And yeah, bring it home.” In the Champions Workshop, participants emphasized the importance of “being a role model” and “[making visible and supporting] other role models” in their communities.

5.3.1.2 Non-Indigenous Champions

Of the non-Indigenous Champions, most lived off reserve and worked both off and on-reserve with their initiatives. All have built connections with the communities with whom they have worked.³⁸ Similar to their Indigenous counterparts, they had a range of post-secondary and vocational experience that influenced their passion to work in the sector. Erika Bockstael mentioned that her educational and NGO work experience “made a huge difference” in her work. “In my PhD,” she said, “I worked with a lot of people who work with Indigenous communities internationally and in Canada. So, I learned a lot that way.” Although Bockstael has a national leadership role with CFTC’s Canada programs, most other Champions who participated in this research work at the regional level, such as Frank Tecklenburg (EarthConnections) or at the community-level, such as Len Sawatsky (Riverside Market Garden).

5.3.2 Creating connections between Champions (networks)

Connections forged between Champions working in the region highlight the significant role that FNFFP networks can play in facilitating sector growth. Champions like Glenna Cayen and Dorothy Ahenakew often mentioned each other and pointed out how they can have a positive impact on each other’s work, including providing crucial knowledge or materials, inspiring community members to participate in FNFFP initiatives and coming up with innovative

³⁸ One community-based professional and the external manager and educator were both employed on-reserve.

solutions to challenges faced (see Plate 5.2). Cayen’s position with CFTC means she oversees Ahenakew’s work at Ahtahkakoop. But, in reality, both help and support each other. For instance, Cayen organized the seed saving workshop at Muskeg Lake, but invited Ahenakew and other community members from Ahtahkakoop to attend and learn from the workshop. Ahenakew often came to Muskeg Lake to take photos during CFTC-related events and brought her family to participate and help out. Critically, they were also able to use the same contacts for materials and equipment for their respective projects, rather than having to source them on their own.



Plate 5.1: The Author with Glenna Cayen (Muskeg Lake) and Dorothy Ahenakew (Ahtahkakoop) at Ahtahkakoop Cree Nation June 14, 2018

Muskeg Lake Lands Manager Alfred Gamble emphasized the importance of bringing skilled, passionate people from on and off-reserve together to create their food forest initiative. “It was really about developing that network and emphasizing the importance of working together,” Gamble said, “but also to leverage, you know, their funds or their expertise, whether it be in kind or in cash.” Connections can be both internal where individuals and departments collaborate and support each other on-reserve, and external in which individuals, organizations and First Nations collaborate with each other outside the boundaries of an individual reserve. Both forms of connection and networking have important roles for the continued growth and success of FNFFP initiatives.

5.3.2.1 Building internal networks

Champions emphasized how “becoming known in the community” and building relationships with “leadership” (particularly, Chief and Council) and “department heads” (e.g. lands managers, health directors, school principals, etc.) were all integral to fostering awareness and support for an initiative. Food-related initiatives can help internal networks of Champions and supportive community members to collaborate and take advantage of multiple development opportunities and meet challenges across departments, such as Health, Education, Lands). Frank Tecklenburg referred to the idea of multiple departments within a community “juggling” balls together, rather than each department or Champion juggling their own “ball” of work:

“If you can get those different departments to come together and say this is our vision; this is what we want to do for our community... then a paradigm shift can happen. [And,] if we can connect those groups that are already there, again, with those other groups then change can happen. If it’s only one person throwing a ball, it’s not gonna make a difference.” (2018)



Plate 5.2: The Champions discuss internal and external factors for a successful food production initiative at the Champions’ Workshop (March 15 2019)³⁹

In this way, FNFFP initiatives can provide a collective focus that brings departments, Champions and community members together in achieving community development goals.

³⁹ From left to right: Len Sawatsky, Anthony Johnston (Mistawasis Nehiyawak), Dr. Jim Robson, Frank Tecklenburg, Dorothy Ahenakew (Ahtahkakoop Cree Nation), Dean Bear (Muskoday First Nation). Not pictured: Dr. Ericka Bockstael.

5.3.2.2 Building external (beyond the community) networks

Champions are also involved in building external networks critical to the growth of the FNFFP sector. Several Champions, including Erika Bockstael, Glenna Cayen, Dorothy Ahenakew and Alanna Remmen, connect through CFTC's work at Muskeg Lake, Ahtahkakoop and Beardy's and Okemasis First Nations. Organizations such as CFTC enable Champions to access resources and expand their networks to support new initiatives. For example, they provided funding for a gardening workshop led by Frank Tecklenburg at Muskeg Lake in February 2018. At this workshop, multiple First Nations and their respective community members were able to enhance their food-producing knowledge and skills, saving precious time and resources while also expanding the network of skilled and prospective First Nations growers.

Collaboration and networking among individuals who work independently can be more difficult to achieve. Glenda Abbott and Frank Tecklenburg are able to work in various reserves and connect with different people, often with the support of their families and personal businesses/organizations. Others, such as Joe Munroe, however, may struggle to connect to Champions in other places.⁴⁰ Workshop discussions noted the need for independent Champions to learn from each other's experiences and areas of expertise, and to foster relationships with others who can provide help when facing significant barriers affecting First Nations communities, such as limited market access and funding sources.

Champions cannot and do not want to work in isolation, and one of the changes in recent years has been a more obvious coming together of organizations, the Champions they employ or support, and other individuals spearheading FNFFP initiatives in the region. This was evident in recent efforts to provide a unified voice "in response to [the] crisis" of diabetes, obesity, addiction and other health concerns afflicting Indigenous communities in the region (Champions Workshop reflection, Appendix D).⁴¹ But these networks remain in their infancy. As Frank Tecklenburg mentioned, "we need to be able to get together and make those differences as people that have an interest in making a difference... There are all these different pieces, and there are amazing people with amazing gifts." The Champions Workshop constituted one more opportunity for these individuals to connect and build relations, and there have been other

⁴⁰ Munroe is seeking support for his own "Creating First Nations Jobs Growing" fund, but has not received sufficient support thus far.

⁴¹ The Champions suggested that framing food insecurity and food sovereignty as a "crisis" may make people more inclined to come together and use their individual expertise to collaborate towards a common resolution.

gatherings over the past year (e.g. the Indigenous Farming Forum and the Seed Saving Workshop), which demonstrate both the need for, and interest in, networking. It provides FNFFP Champions with invaluable momentum and encouragement.

5.3.3 Champions and capacity building

Champions are building FNFFP capacity among First Nations communities. As discussed in section 4.3 of Chapter four, the legacy of colonialism and past experiences with FNFFP disrupted Indigenous knowledge systems, specifically regarding growing food on reserve. Today, these Champions play a pivotal role in reviving the practices and knowledges that underpin local food systems, and the introduction of new ideas and technologies to re-build capacity where it has been lost or weakened. Patricia Ballantyne emphasized that her “focus is to bring back all of the natural products that were in the bush before, like we're on the land for trees, berries, things like that” through land-based education and youth engagement, and to restore the value those “natural products” have for First Nations peoples.

Skill-building and technical training are an important part of Champions’ work. Gord Ens reflected on Joe Munroe’s work with the Muskoday Workers Organic Co-op, where he would “take [social assistance] money and [invest] in [gardening] training ... and through that people get enough hours to get on employment insurance benefits and... access to more training opportunities ... but they also... develop work skills.” In the case of the Workers Co-op and the Riverside Market Garden, this training often came through the Green Certificate Program, which Len Sawatsky adapted for organic gardening in a First Nations context. Munroe’s initiative and Sawatsky’s program allowed a number of community members to get off of social assistance, gain employable skills and certification, and contribute to a new generation of people who know how to grow food for local consumption and/or sale. Sawatsky reflected, “there are at least 30 or 40 people that would know how to run a garden or know what to plant in their own backyard and garden now. So, they're familiar with what needs to be done. So, I would say development of a capacity. And there are people eating a bit healthier.” Although the future of the Riverside Market Garden is uncertain, the training and skills it has provided to people is already seen as benefiting broader developmental change in the community.

Finally, Champions understand capacity-building through FNFFP initiatives as a mechanism to help strengthen community efforts at decolonization and self-determination more generally. Glenda Abbott reflected that her teachings around food and growing food are designed

to “pass on to someone else to reclaim Indigenous-ness. Like what does it mean to be Indigenous.” Through their work, Champions are carving out space for First Nations peoples to redefine their food system and decide what works best for their community. As Frank Tecklenburg shared: “So it’s important to bring those Champions - those two or three people from those communities – to our place; spend the week there. Look at different things and identify what they feel would benefit their community. And then create a plan to be able to make that happen.” Here, rather than adopting a prescriptive model for First Nations development around food, small groups of Champions came together to discuss the nature and meaning of proposed initiatives from the community’s perspective.

Alanna Remmen, commenting on Beady’s and Okemasis’s backyard gardens, said that she wants to “put the effort back on the people as much as possible and just be supportive when they need it. Ideally, to leave it in their hands and put myself out of a job”. The end goal for most Champions is to play a supporting and facilitatory role in FNFFP initiatives, in the understanding that such initiatives are about more than producing food for consumption. They see their work as helping First Nations communities to disrupt cycles of dependency and colonialism.

5.4 CHAPTER SUMMARY

Today’s FNFFP sector is challenged by complex barriers that operate at multiple scales. This includes land and market access, difficulties meeting labour needs, a lack of interest or familiarity with growing food, issues around governance, politics and bureaucracy and inaccessible or inappropriate funding sources. First Nations and FNFFP Champions are using their experiences, knowledges, and ideas to address these challenges. In looking to grow the sector, they see the potential for food to bring together Indigenous traditions, heritage and well-being with new technologies and community development strategies. Being able to grow food becomes as much an expression of identity and an assertion of sovereignty as it is a source of good health and potential livelihood. Support from broad community memberships, partner NGOs and government agencies will be important if FN communities are to meet such goals. While support in some areas has been forthcoming, such as health or education-related programming, more assistance in the areas of on-reserve employment and Indigenous enterprises is needed.

CHAPTER SIX: DISCUSSION

This chapter reflects upon this study's main research findings. Sections 6.1 and 6.2 consider the findings presented in Chapter four to argue that the contemporary FNFFP sector in Central Saskatchewan constitutes a "re-imagining" of a First Nations food system, rather than repeating what came before. Today, food and food production are being used by First Nations for reasons that go beyond questions of feeding people or generating economy. Instead, food forms a part of broader decolonization efforts to assert and strengthen Indigenous sovereignty and biocultural heritage. Sections 6.3, 6.4 and 6.5 build on Chapter five to discuss the integral role of Champions, social innovation, and partnerships, and networks in facilitating First Nations community development around food. It incorporates key lessons from Muskeg Lake Cree Nation's food forest initiative. The chapter ends by considering where the sector goes from here in the context of current barriers, limitations and capabilities.

6.1 Towards a reimagined and retooled FNFFP sector

Both past and present literature point to the challenges that First Nation communities have faced, in Central Saskatchewan and the Prairies more broadly, to establish Indigenous food systems based on farming, gardening, and other forms of local food production. This research sought to characterize the contemporary First Nations Farming and Food Production (FNFFP), a term I designated for the sector, explore how it has grown, shrunk or stagnated since the mid-20th century, and whether it has undergone a resurgence in recent years. The barriers facing First Nations (described in Section 5.1) might suggest that any contemporary FNFFP sector would be limited in scope, in a state of decline and/or struggling to (re)establish itself. Yet, this research points to a sector that is active, vibrant even, with a third of First Nations in Central Saskatchewan currently undertaking or proposing initiatives.

Upon further analysis, I find First Nations are undertaking a variety of initiatives and for a multitude of reasons. This points to a current reimagining and retooling of how food can be used locally, and how it can contribute to individual and collective wellbeing. In the past, the FNFFP sector was built around individual/household benefit streams. First Nations either farmed or gardened to sell produce or to provide sustenance to their family (Carter 1989; Funk and Lobe, eds. 1991). In contrast, many of today's FNFFP initiatives reflect a broader set of reasons why First Nations peoples want to grow or produce their own food (see section 4.2). It is now a

sector that is less export-oriented and individualistic, and more community-oriented and holistic in its orientation (Wiebe, Desmarais and Wittman 2011; Desmarais and Wittman 2014; Graham-Gibson 2008). The emergence of community-based garden and permaculture projects suggests that growing food in First Nations now places much more emphasis on the social over the economic value of land (after Desmarais et. al 2017). This social valuation is evident in the contemporary drivers motivating First Nations communities today, namely health (Mason and Robidoux 2017; Gendron, Hancherow and Norton 2016), land-based education and intergenerational knowledge transfer (Michell 2018) and the fostering of Indigenous economies (Loney 2016; Kuzivanova and Davidson-Hunt 2017).

6.1.1 Farming is less prominent than expected

Most First Nations communities in the region with an identifiable food production initiative are not focused on farming. Rather, a myriad of smaller, family or community-scale food production initiatives (including gardening and permaculture) are prevalent. These initiatives are somewhat different in each community, ranging from backyard gardens (in Beardy’s and Okemasis) to community gardens (in Ahtahkakoop) to a food forest (in Muskeg Lake). They also reflect a diversity in values and interests regarding food production; evidence that actors in today’s sector are not interested in adopting a “one-size-fits-all” approach (Verbos, Henry and Paredo 2017).

This then raises the question of where farming might fit into the broad FNFFP sector moving forward. In some ways, farming is at a crossroads because of the apparent misalignment between the large-scale, commercial nature of most farming operations and First Nations’ contemporary interest in growing food for a multitude of other reasons (Kepkiewicz and Dale 2018). Even if this was to change, and First Nations became serious about large-scale farming, they still face a farming sector that has gone through major changes over the past 70 years (post-WWII), affecting both Indigenous and non-Indigenous farmers alike (Magnan 2011).⁴² Text Box 6.1 illustrates the measures Chief Cadmus Delorme of Cowessess First Nation took that were necessary for their people to engage in large-scale agriculture on their lands.

⁴² Before this time, as Sarah Carter (1990) highlighted, “reserve agriculturalists were subject to the same adversities and misfortunes as their white neighbours were, but they were also subject to government policies that tended to aggravate rather than ameliorate a situation that was dismal for all farmers” (13).

Box 6.1: Farming initiative in Cowessess First Nation, Southern Saskatchewan

Cowessess First Nation is located on Treaty 4 territory in Southern Saskatchewan. During the Saskatchewan Indigenous Agriculture Forum, Chief Cadmus Delorme spoke of his community's trajectory towards large-scale farming on reserve lands. They had recently settled hereditary claims to lands held by families who had "buckshee" agreements with off-reserve farmers. These buckshee agreements were landholder-to-landholder agreements that allowed the individual family to garner rental income from farmed land, but undermined the Band's ability to do the same. After the arrangements ended, the Band took control over the rental schemes. They opted to retain the land for themselves and have been seeking investments and training to allow their own people to farm the land (Field notes, December 18 2018).

For Indigenous farmers specifically, several additional barriers still exist. As highlighted in Chapter 5 (Section 5.1), First Nations farmers have long been disadvantaged by the Indian and Bank Acts, and lack of government support (see Kennedy 1973; Johnson 1995; Tang 2003). Over the past twenty years, these issues have been exacerbated by the lack of capital and market entry barriers for prospective farmers. These financial and economic constraints are squeezing them out of the sector. This squeeze is attributed to an "increasing preoccupation with economic, rather than social value of land" (Desmarais et al. 2017). The findings from this research suggest that, for First Nations people, farming may not be a viable food production option if current structures and realities do not change.

These are the structures and realities that also inform government agencies, such as Agriculture and Agri-food Canada (AAFC) and Farm Credit Canada, who purport interest in supporting First Nations peoples who want to farm.⁴³ In 2017, AAFC held two First Nations Outreach Sessions (Spring 2017) "with leaders, farmers, land managers, and economic development organizations from First Nations communities (on and off reserve), as well as others involved in the agriculture and agri-food sector and federal, provincial, and territorial representatives" (3). However, the fact that all but one First Nation in Central Saskatchewan has taken up farming of the kind promoted by the AAFT, and few Indigenous people attended the sessions (as prospective farmers), suggest how these kinds of agencies remain out of touch with how most First Nations want to engage in farming and food production. As Alanna Remmen told

⁴³ This interest by the government today is worth noting. Twenty-five years ago, First Nations farmers felt "politicians ... ignored agriculture as a means of economic development" (Johnson 1995). But, their participation statistics reveal that any such interest in farming is not resulting in any kind of "resurgence" in terms of numbers on the ground: 80% of participants were already working in the agriculture sector and were not prospective farmers; 78% identified as Indigenous, but 54% of those lived on-reserve, and around half "gained a better understanding of AAFC programs" or had "accessed AAFC programs and services" (11).

me, large-scale First Nations agriculture is hampered by a “Western worldview of the land as a ‘resource’ to be used versus an Indigenous worldview that the land is ‘life’” and that the industrial model of food production does not easily align with First Nations perspectives on sustainability (see also Kepkiewicz and Dale 2018; Magnan 2011).

6.2 Food as a tool for decolonization?

I argue that reimagining and retooling First Nations food systems in Central Saskatchewan forms part of a broader decolonization movement being waged by Indigenous peoples in Canada and beyond (Desmarais and Wittman 2014; Wiebe et al. 2011), where food becomes both a vehicle and catalyst for such movements. As Glenda Abbott explained to me, seeds are stores of knowledge and stories as well as sources of food. By extension, all foods become stores of knowledge and expressions of heritage and culture (Nabhan 2008), where control or sovereignty over one’s food system expresses empowerment, within an otherwise post-colonial context (Grey and Patel 2015). Increased efforts by First Nations in Central Saskatchewan to grow their own food can be viewed as an expression of power and asserting control and sovereignty over their food systems, and their nationhood more broadly (Fenelon and Hall 2008). Critical to this effort is the reorientation of power dynamics within systems of food production and consumption to better reflect Indigenous worldviews and move away from reinforcing ideologies and structures of oppression/suppression (Corntassel and Bryce 2012; Kamal et al. 2015).

6.2.1 Growing food as part of self-determination

Work on Objective 1 showed how farming was, in the past, envisioned as a tool of colonization and a way to help remove First Nations peoples from their lands (Daschuk 2014; Buckley 1971, 1992). Today, First Nations in Central Saskatchewan, as elsewhere in the Canadian Prairies (Mason and Robidoux 2017), are growing food to help address various socio-economic barriers in their communities like health, education and economic development. Rather than taking up farming or the growing of food to avoid starvation under the auspices of top-down political control (Dawson 2003; Buckley 1971, 1992; Poitras 2000), First Nations in Central Saskatchewan are looking to produce food as a way to empower people in their communities and to strengthen sovereignty. Rather than be the subjects of agriculture as colonial tool, they are

finding ways to grow food that fit within their own Indigenous worldview and set of values, including those tied to social wellbeing and environmental stewardship (Graham-Gibson 2008).

Regarding work on Objective 2, many of the FNFFP Champions interviewed for this research saw the act of Indigenous peoples taking control of their local food systems as something that contributes to broader goals of self-determination. While few Champions saw their work as being part of a larger global movement, their efforts resonate with the long-term food sovereignty goals for which global advocacy groups such as La Via Campesina are fighting (Grey and Patel 2015; Kamal et al. 2015). Glenda Abbott’s seed saving workshop is one example. Her participants were asked to list the seasonal activities necessary to maintain a household and the community. The resulting calendar was a consciously-designed, holistic system that represented food sovereignty for the community. The foods, ceremonies and kinship-related activities with which seed-saving is associated were combining to promote and assert the value and importance of Indigenous heritage and culture.⁴⁴ How participants at the workshops combined “traditional” and “Western” foods, customs and practices, is an example of how those involved in FNFFP are more concerned with *how* and *why* foods are grown, distributed and consumed, than trying to ensure that things remain “traditional”. As suggested in the Chapter two, First Nations are emphasizing place-based food systems (Klassen and Wittman 2017), where growing foods in general helps to strengthen ties to Land. This is evident in the use of permaculture design, organic growing methods and incorporating land-based education with growing food. By strengthening one’s relationship with Land through the growing of food, one is “nurturing” the “interconnected autonomy” between sovereignty and cultural preservation (Kamal et al. 2015). In other words, growing food in ways that respect and enrich Land in turn enriches culture, and the sovereignty of both.

6.2.2 Reconceptualizing innovation in First Nations food systems

The holistic and interconnected nature of FNFFP initiatives and activities, and the reasons for doing these things, were part of what many research participants felt was “innovative” about the sector today. This was somewhat of a surprise to me, having gone into the research thinking about innovation in a slightly different way. In Chapter two, I separated the possible drivers of FNFFP initiatives into the categories of Indigenous rights, (re)-connections to

⁴⁴ Table 1 in Kamal et al. (568) provides a similar example of Abbott’s activity.

Land, food security/sovereignty and economic development. Yet, as made clear in section 4.3, many if not all of these drivers are connected as part of broader struggles towards self-sufficiency, self-reliance and self-determination. As Frank Tecklenburg noted, “combining the permaculture, combining the health, combining the Elders... by combining the education and by bringing forward the things that are already being done there, you can then go forward in creating a cooperative and a food hub of a variety of different First Nations in that area that will then be able to have a lasting effect”. Most Champions mentioned self-sufficiency in their interviews, but it was often framed within the context of community development goals. They spoke about the importance of food security, food sovereignty, the cultural appropriateness of food and the role of food in economic development. But, they did so in the context of these things being critical components of self-sufficiency or self-reliance, whereby communities can move away from a reliance on non-Indigenous food systems, government funding or extractive resource and agro-industrial activities.

For research participants, it is this decolonizing or self-reliant approach to FNFFP that constitutes a kind of *social* innovation, one that “[enables] the engagement of community people and other stakeholders to identify gaps, barriers and opportunities for improvement of the food system, as part of an integrated quality improvement process.” (Brimblecombe et al. 2015, 55). Rather than a technical innovation that may have “profitability and commercial success” at its core (Cajaiba-Santana 2014; Dawson and Daniel 2010), the contemporary FNFFP sector involves the emergence of “new social practices that will ultimately become institutionalized” (43). For instance, using FNFFP projects for land-based education and reshaping Indigenous food system, such that these practices “cannot be built up on the basis of established practices” (43) – in this case, colonialism and a colonized food system. FNFFP initiatives like the Muskeg Lake Cree Nation food forest present important sites for these social innovations to occur. These sites may contribute to our understanding of the Biocultural Design framework (Davidson-Hunt et al. 2012; Hayes, Robson and Davidson-Hunt 2017) in a Cree/Central Saskatchewan context.

6.3 Champions and social innovation in the FNFFP sector

Neumeier (2012) argues that key actors and innovators (e.g. Champions) who coordinate and collaborate to build networks as “actor constellations” (63) are essential to the success of regional development initiatives, and that this success can only be founded through social innovations. This research has helped to highlight the critical role that individuals and

organizations, which I term Champions, play in the FNFFP sector by aiding the implementation and sustainability of associated initiatives, and helping communities and community members to overcome obstacles and enable the sector to grow. These Champions bring ideas, expertise and energy to the sector, but try to do so in ways that allow the sector's evolution and growth to remain framed and guided by community perspectives, aspirations and goals. They further support the sector by forging networks and partnerships with other Champions, communities, and organizations that, while often informal, can help to leverage FNFFP initiatives and inspire others to take on leadership roles within the sector.

6.3.1 Entrepreneurship and development in a FNFFP context

As mentioned, Champions bring skills, knowledge and new ideas. In some cases, such as Muskeg Lake's food forest, a Champion may come into a community with an idea and bring with them the resources needed to make it happen. In others, such as the Riverside Market Garden, the inspiration for an initiative starts endogenously; from those within the community who have an idea, but lack that resources or skills needed for it to happen. In both cases, Champions play a key role in driving things forward, but do so by adopting a collaborative, rather than competitive, approach to development, akin to the role of "facilitator, leader, teacher, expert and coach" that scholars have argued is integral to sustainable rural development (Richardson 2000).

Examples of outside Champions with a track record of working with FN communities include Frank Tecklenburg and EarthConnections who have introduced new gardening technologies to First Nations, but in ways that cater to communities' different development needs and circumstances. Similarly, in working with Muskeg Lake Cree Nation to develop its food forest, Steve Wiig's Holistic Landscape Design adopts a business approach that seeks to bring wealth, resources or expertise from outside the community into the First Nation. For these Champions, the community and its membership are viewed as design partners rather than clients. Furthermore, an initiative like the food forest does not promote an exploitative business model in the community at the cost of Indigenous lands and livelihoods (Davidson-Hunt and Berkes 2010). Rather, it incorporates "traditional livelihoods" and respect for traditional lands and environmental health; the kinds of things that Verbos, Henry and Peredo (2017) consider cornerstones of Indigenous entrepreneurship and management. These examples offer a snapshot

of how Champions and their affiliated private organizations can be sources of social innovation to transform and grow the FNFFP sector.

6.3.2 Forging partnerships and networks through FNFFP

This research highlights the importance (actual and potential) of partnerships and networks between Champions, supporting organizations and First Nations. These networks can help to build capital, make grants more accessible to First Nations projects, recognize traditional expertise and close the technology/communications gap between First Nations and the rest of Canada (Pengelly and Davidson-Hunt 2012). It is through partnerships that communities can coordinate around development goals and aspirations, collaborate on grants, share resources and labour to reduce the individual workload per champion, department or community member, and allow initiatives to tackle multiple development goals at the same time (after McKnight and Block 2010).

Partnerships and solidarity between First Nations communities are important. As Joe Munroe stated, “I think it's crucial that First Nations reach out and establish partnerships [with one another]”. Champions felt that First Nations could overcome colonial dependency on the state by building links to connect initiatives happening in different places and encourage learning exchanges around food and food production between community memberships. However, forging partnerships between communities is not at all straightforward (Richardson 2000), with previous work pointing to how First Nations can be reluctant to share what they are doing with their neighbours (Pengelly and Davidson-Hunt 2012).

This study suggests that communities need help from Champions and supporting organizations to forge links with one another and build capacity. Such partnerships are already being built. Canadian Feed the Children (CFTC) is one example of an organization that has worked to create a cluster or network of food-producing First Nations where none existed before. Working under a common directive to engage youth in food-related activities, CFTC initiatives in Ahtahkakoop, Beardy's and Okemasis, and Muskeg Lake Cree Nations are customized to each community's development needs and circumstances, but with the potential to come together to learn from one another. As Glenda Abbott remarked, “this is what the conversation should be! Like nation-to-nation agreements between First Nations saying, ‘you know what, we can grow this and you can grow potatoes and you can grow this’ and we can develop this agreement and partnership between our nations.” Although the research found no formal nation-to-nation

partnership within the region’s current FNFFP sector, individual Champions and their supporting organizations will be instrumental in building future partnerships between First Nations within and beyond it.

6.4 Confronting barriers to growth in the FNFFP sector

The hard work and dedication of those engaged in farming and food production initiatives might suggest that the FNFFP sector is poised to grow. However, ongoing barriers (presented in Section 5.1) have stalled initiatives in the past and will continue to do so if they are not confronted. Growth requires supporting organizations (private and public) and First Nation Band Councils to move away from a focus on profit maximization (Berkes and Davidson-Hunt 2007) and change how they innovate, support and participate in FNFFP initiatives in the region.

Much seems to rest on creating a network of people, organizations and programs that understand the sector and can align their work and forms of support to match the kind of development for which First Nations are looking (Peredo et al. 2004; Anderson, Dana and Dana 2006; Houde 2007). As Mannell, Palermo and Smith (2013) point out: “First Nation communities are frequently settling for solutions that have been designed for another context” that may perpetuate rather than alleviate barriers in the community (122). While private organizations like EarthConnections and NGOs like CFTC have demonstrated the potential to adapt to working in a First Nations context, the federal government has not. To date, no formal apology has been made by the federal government for discriminatory policies towards Indigenous farmers, including the Peasant Farming Policy, Greater Production Campaign and Soldier Settlement Act. Indeed, based on current language, the government also seems unsure of how to approach the question of agriculture and First Nations in a contemporary context.⁴⁵ So while the federal government needs to do more to rectify, and move beyond, past mistakes and injustices, they also need to find ways to meaningfully engage with First Nations and how best to provide appropriate support today.

From a First Nations perspective, rigid investment approaches from large-scale private organizations can also be problematic (see Verbos, Henry and Peredo 2017). If an initiative seems financially sustainable, it will be supported, otherwise, it will not. This is one example of

⁴⁵ “How AAFC and First Nations will engage in a long-term, nation-to-nation ... partnership needs to be explored further” (AAFC 2017, 5) and “lack of policy and program continuity on the part of the federal government has created cynicism within First Nations, including in the agricultural sphere” (6). No empowering partnership can be built on cynicism and cannot be nation-to-nation if one nation prevents the self-determination of the other.

the values mismatch between the interests of First Nations in growing food and the aims and values of the federal government. Large-scale private organizations like One Earth Farms lack business models that are adapted to individual First Nations' development needs. Rather, they appear oriented towards the transformation of First Nations communities into agro-industrial hubs (Kepkiewicz and Dale 2018). This creates a problem because its often the larger private organizations and government funding programs that possess the capital to really help the FNFFP sector in significant ways (Gordon et al. 2017). Small, non-Indigenous organizations, such as Holistic Landscape and Design, or community-based organizations, such as Riverside Market Garden, are well suited to work with and for individual First Nations communities, but they just do not have the capital or economies of scale to build partnerships between First Nations, which are crucial for necessary value-added processing facilities (Magnan 2011; Johnson 1995).

6.4.1 How Band governance can interfere with growth of the FNFFP sector

An ongoing barrier to growth identified in Chapter five (Section 5.4) resides within First Nations, their “dysfunctional” Band governance structures (J. Graham 2012), and how community members are – or are not – engaged in community development projects. Band politics are such that there is always a danger of aligning an initiative to cater to one group or value set, thereby excluding or discouraging others from participating in, or supporting, an initiative. In addition, Band Councils often oversee many different initiatives at the same time but lack any official opposition or independent review system to hold the Council accountable (J. Graham 2012). Consequentially, political rivalry and “redundancy, repetition and competition” for Band time, attention, and resources can “stifle” an initiative from meeting its potential (Mannell, Palermo and Smith 2013). In the study region, once the Band became directly involved in the management of a community initiative, whether the Riverside Market Garden, Muskoday Organic Farm Co-operative (MOFC) or tunnel gardens at Cumberland House, the initiative lost momentum. Text Box 6.2 details a prime example of this, using the case of the Riverside Market Garden.

Box 6.2: An example of how Band governance can hinder Indigenous enterprise

The Riverside Market Garden (as well as the now defunct MOFC) was an example of a social enterprise attempting to overcome multiple barriers to sector growth. Len Sawasky still believes the co-op model, and social enterprise by extension, are a “good fit” for Indigenous entrepreneurship. He is not alone. Paredo and Chrisman (2006) argue the co-operative business model acts “corporately as both entrepreneur and enterprise in the pursuit of the common good,” rather than as an initiative that extracts wealth and contradicts Indigenous values. Relatedly, Sengupta, Vieta and McMurtry (2015) suggest that social enterprises serve marginalized populations, and [First Nations] populations do face multiple levels of marginalization in Canada” (107). They also suggest that social enterprise can be a “force for social change rather than a maintenance of current power relations” (from Steyaert and Hjorth 2008) addressing “multiple goals [that go] beyond economic self-sufficiency” (from Anderson 2011). Yet, the Riverside Market Garden was unable to overcome the current power relations that led to Band takeover, and the MOFC failed despite support from organizations like the Saskatchewan First Nations Economic Development Corporation (2015) and the federal government.

As section 4.1 (Chapter four) highlighted, these Indigenous enterprises were the only examples of initiatives that attempted and briefly succeeded at ‘scaling-up’, and both used a social enterprise model to do so. One may suppose that “Indigenous people are ready” (Loney 2016) to assert themselves and grow the FNFFP sector, but based on the evidence of this research, the potential of social enterprise for community development is hampered by current Band governance models and practices. Dysfunctional Band governance seems to manifest mistrust of Band Council, and lead to pushback, skepticism and frustration from community members and Champions alike when the Band Council is directly involved in an initiative. This is an important reminder that any new or innovative undertaking within a community setting does not occur within a neutral space and must take First Nations Band politics into account. Exploring the role of governance and politics in the sector was beyond the scope of this research.

6.4.2 Lack of engagement from community members

An ongoing and more elusive barrier mentioned in section 5.1 was convincing community members to engage in an initiative. Household-level initiatives like backyard gardens at Beardy’s and Okemasis Cree Nation may target interested families, but not everyone has the time or means to participate. Community-oriented initiatives, such as a food forest may also struggle with buy-in and the long-term sustainability of an initiative. Gendron, Hancherow and Norton (2016) attributed low engagement to lack of accessible gardens, ineffective advertising or scheduling issues. Something similar was seen in Dorothy Ahenakew’s struggles recruiting volunteers at Ahtahkakoop’s community garden. Yet, reasons behind the lack of engagement

may run deeper (see Glen 2018), as issues like “poverty... depression... unemployment... can lead to feelings of hopelessness without a positive view of the future” (Mannell, Palermo and Smith 2013), and may be tougher to tackle than better accessibility, advertising or scheduling.

As mentioned earlier, community development initiatives do not occur in a neutral space and may carry political baggage. Glenna Cayen often struggled to get people involved in various consultation and planning events, as she was not included in emails between departments and councillors pertaining to events or activities that could engage community members with the food forest. Consequentially, she was often forced to make needed decisions that always ran the risk of leaving some community members feeling unheard or disregarded, which may have led to limited support for, or engagement in, a given initiative. Discussion with some older community members at events like the culture camps and Elders’ Council meetings found that some people felt they were not included in the food forest planning process, especially the choice of location.⁴⁶ While some, like Deanna Greyeyes, felt that the food forest could be a good thing for the community, others were skeptical that it would survive or address the complex array of social challenges in the community. In turn, people may intentionally disengage with an initiative like the food forest because it runs counter to their political beliefs or, at its most extreme, resentment for an initiative and others involved. FNFFP initiatives may have to dedicate more time to unpacking social dynamics in the community to get much needed buy-in from its members and give deeper scrutiny to why people are not, and do not feel, engaged.

6.5 The future of FNFFP in Central Saskatchewan

This research presented Muskeg Lake Cree Nation’s food forest initiative as a novel approach to Indigenous food production and community development in Central Saskatchewan, and an example of what future growth may look like in the sector. While it remains in its early stages and will not “bear fruit” for a few more years, I was fortunate enough to be present for much of the initiative’s initial planning and implementation stages. This gave me important insights as to the community dynamics that can impinge upon and shape projects of this kind, and a chance to reflect on the potential of such initiatives to underpin growth in the FNFFP sector.

⁴⁶ The food forest was placed on a clearing that was originally intended to be saved for the church graveyard in the community.

6.5.1 Context-specific development in a First Nation

The Muskeg Lake food forest project adopted a context-specific development approach that allowed community members to plan together, “work collaboratively, and accomplish more as a group than would be possible as individuals” (Mannell, Palermo and Smith 2013). Glenna Cayen collaborated with Patricia Ballantyne and many others at Muskeg Lake, as well as Erika Bockstael at CFTC, Steve Wiig at Holistic Landscape and Design and others from outside of the community. She worked hard to include youth and school staff into work on the food forest, incorporating participation in building the food forest as a learning opportunity. This collaborative, multi-faceted development approach fits with the Indigenous *mitho-pimachesowin* (MiPi) and the attempt to plan “to fit local structural realities” (Beatty 2019).

Having the project steered by a community member, but not by someone in a leadership position with the Band, allowed the initiative to avoid some of the local politics pitfalls mentioned in section 6.3. As a resident, Cayen was already aware of the political landscape, demographics and relationships between community members, and who they could lean on for support when needed. While many food security committee meetings focused on what was missing or needed for next steps to happen with the food forest, many project successes came from recognizing and making use of the talent and materials already available in the community. This included hiring people with carpentry skills to build structures, such as the gazebo, or gardening experience to keep saplings alive. While Cayen did face various challenges getting the food forest started, her standpoint as a community member allowed her to find support from other community members and adaptively respond to changes as the project progressed.

6.5.2 Indigenous youth-oriented development

Also, key to the Muskeg Lake initiative was the inclusion and prioritization of youth in the planting and future design and planning of the food forest. Such an approach fits emergent Indigenous development concepts like MiPi, whereby kinship and relationships are considered central (Beatty 2019), and youth become powerful actors and voices for change (Checkoway 2012; Mannell, Palermo and Smith 2013). According to CFTC’s mandate, the project could be adjusted to suit the community’s development needs so long as youth were the main beneficiaries. This meant that Champions like Glenna Cayen, Patricia Ballantyne and Alfred Gamble, together with many parents, Elders and other community members, worked tirelessly to

engage youth throughout the project. Many community events related to the food forest, such as the culture camps, tree planting days and poster-drawing design activity, were centred on youth engagement and building youth interest and sense of pride in their community and the initiative; similar to wild rice harvesting in Wabaseemoong Independent Nations (Kuzivanova and McDonald 2015; Kuzivanova and Davidson-Hunt 2017).

However, while youth engagement was an important component of the food forest initiative, allowing youth to take a leading role in the design and development of FNFFP initiatives has not been readily apparent, neither in Muskeg Lake or Central Saskatchewan in general. The youngest person to participate in this research was in their forties. This begs the question: what would encourage or enable a young Cree person to champion or lead a FNFFP initiative? It is a question that resonates more broadly in the Indigenous community development literature. For example, while the Harvard Project on American Indian Economic Development calls for strong institutional governance, culture and leadership to foster Indigenous community development (Cornell and Kalt 1989), the opportunity for youth to shape such development is not made explicit. And youth perspectives and aspirations may be entirely different from those of Elders or older community members, making the meaningful engagement of youth in FNFFP an imperative if the sector is to maintain relevancy and grow over time (Gendron, Hancherow and Norton 2016). In Muskeg Lake, the poster-making activity and tree-planting days showed that even kindergarten-age children were aware of the food forest and what kind of space it could be for them. It is through ongoing youth-engagement work that a sense of familiarity, pride and relationship with “patterns, cycles and happenings” (after Cajete 2000) can be engendered, potentially generating an entirely different experience around the growing of food for youth than would have been the case for their parents and grandparents. This seems a vital step. Genuis et al. (2014) and Calatani and Minkler (2010) point to how understanding youth and their food-related experiences – along with their family and heritage – is critical to community empowerment and success moving forward.

Youth-oriented development also stresses a future-oriented view of Indigenous community development, planning and design – an approach that resonates with what Mullinix (2017) considers “deep sustainability”, and the fostering of resilience in local social and ecological systems (Gordon et al. 2017). The hope is that by educating and engaging them, youth will be transformed and become agents of change and innovation in their communities.

6.5.3 Making food central to Indigenous community development

The food forest was created with several ideas or aims in mind: to improve health, facilitate youth and Elder engagement and contribute local food. It was hoped that the food forest could become an important source of biocultural heritage for Muskeg Lake Cree Nation (MCLN), with the potential to generate new socio-economic opportunities as it became established and grew (in both scale and importance) (after Davidson-Hunt and Berkes 2010). My sense is that MLCN's food forest, like many initiatives within the broader FNFFP sector, provides an example of how First Nations peoples are looking to use food production as one more means to assert their independence, or desire for independence, from the state. It is part of a shift towards recognising and reimagining themselves as "abundant" communities. For McKnight and Block (2010) an abundant community will "have the capacity to collectively handle an uncertain future ... beyond this moment ... [to] make visible and harvest what up to now has been invisible and treated as though it were scarce" (66). People are interested in local food production because they see the potential for food to help First Nations communities and people to enhance livelihoods, wellbeing, and underpin a collective push for self-determination beyond "profitability and commercial success" (Cajaiba-Santana 2014). In this way, the growing of food offers a pathway to greater self-sufficiency and self-reliance, whether through straight economic development – if it can be sustained – or as part of a broader decolonization movement.

Emergent examples of social innovation, such as the food forest, show how much First Nations in Canada want self-determination and true sovereignty (Berkes and Davidson-Hunt 2007; Kuzivanova and Davidson Hunt 2014; Kamal et al. 2014). That is not say, however, that it is a journey that they will, or can, or even want to, take on their own. While Mannell, Palermo and Smith (2013) argue that, to be effective, community planning and development "must be done *with* and by the community" as they "are better able to identify and celebrate special qualities that make them unique" with "more tools and knowledge" compared to an outsider (133, emphasis in original), this research has also highlighted the vital role for individuals and organizations from outside a community to help mobilize capacity-building skills and expertise. In this way, the sector provides important opportunities for Indigenous and non-Indigenous peoples to work together on transforming what the farming and food production sector looks like in Central Saskatchewan.

CHAPTER SEVEN: CONCLUSIONS

The purpose of this research was to understand the scope of First Nations farming and food production initiatives in Central Saskatchewan, and how they might contribute to community development goals. To do this, I used two bounded case studies: a comprehensive case study of the Champions of FNFFP initiatives, and an intrinsic case study of Muskeg Lake Cree Nation's newly-planted food forest. Data was collected through individual semi-structured interviews, participant observation, and supplementary literature research and document review, and was used to explore three objectives. Summaries of key findings per research objective are provided below:

Objective 1: Document and explore the recent history of First Nations farming practices and food production in the study region

Key conclusion: Historical experiences with FNFFP create barriers for the sector today, and shape what First Nations want to do with the sector today.

First Nations peoples in Central Saskatchewan remained skilled and avid farmers and gardeners throughout the twentieth century. However, the government introduced policies affecting on-reserve farming before and during this period which placed ongoing obstacles that continue to hinder the sector's growth potential today. Restrictions on First Nations peoples under the Indian and Bank Acts limited their ability to access land and capital needed to farm as scale and competition have increased over time (Buckley 1971; Kennedy 1973). Other policies, such as the Soldier Settlement and Veterans' Land Acts, and the subsequent Certificate of Possession (CP) land permits, led to dispossession of reserve lands. During this time, First Nations communities also became more exposed to imported foods and were less reliant on growing their own. This change in their food system means communities, especially youth, are less familiar with fresh, local foods and how to grow them themselves. Today, First Nations are learning and adapting from their past experiences with farming and food production to grow the sector today. First Nations have long recognized the value of the sector for their community development, but are using food production in different ways, beyond farming, to fit the socio-economic realities of their communities.

Objective 2: Investigate contemporary interest and activities in farming and food production among local First Nations

Key conclusion: FNFFP is an identifiable sector in Central Saskatchewan, with local First Nations using a diversity (in type and scale) of farming and food production initiatives.

Interviews with Champions within the sector revealed that at least eleven individual First Nations communities have engaged in, or are interested in, some form of farming or food production initiative, with the majority using different food production approaches in the realm of gardening and permaculture. These initiatives vary across communities and are mostly small scale, with only a couple of examples of medium or large-scale initiatives identified. Current drivers for these emergent initiatives include health benefits, engagement of youth and Elders and building Indigenous economies. Although First Nations are often the leaders behind current FNFFP initiatives, Champions and supporting organizations were identified as crucial leaders and facilitators needed to bring in additional resources and expertise into an initiative.

Objective 3: Explore ideas for innovation and growth in this sector

Key conclusion: First Nations are being innovative by using food in new ways oriented towards Indigenous community development rather than simply producing food for consumption

First Nations communities in Central Saskatchewan are using growing food as a tool to advance broader development goals and act as a platform for social innovation, whereby communities and their partners come together in a network of aligned interests. As such, innovation is less about specific practices of farming or food production and more about the shift and mechanism by which food becomes a tool of community development. Champions are often integral to helping communities to overcome challenges to sector growth. However, I found that First Nations are working with Champions that ensure sector initiatives meet their goals and aspirations. Finally, certain socio-economic realities may limit how much and how quickly the sector can grow: small-to-medium-scale, individual or community-oriented initiatives struggle to survive as they increase in scale. Conversely, large-scale initiatives have much-needed resources and can work across different communities, but are not always aligned with individual community values and development needs. Supporting organizations, governments and Band Councils will need to change how they involve themselves in farming and food production initiatives to address critical barriers to sector growth.

7.1 Contributions of the thesis

This research fills some of the gaps in the literature regarding the history of FNFFP in the region by adding lived experiences of First Nations farmers and food producers and their narratives. More broadly, I challenge our perceptions of what farming and food production looks like in the Canadian Prairies. First Nations have a rich history and an interest in the sector, as well as aspirations to transform what it could look like today and in the future. It also supplements the literature with insights into how First Nations in Central Saskatchewan are doing more than “agriculture,” and providing Indigenous perspectives on growing food in other ways, for various development purposes. It highlights that First Nations in Central Saskatchewan want to assert sovereignty over their food and food systems, as found in other Indigenous communities in Canada and around the world (Kamal et al. 2015; Corntassel and Bryce 2012; Desmarais and Wittman 2014; Grey and Patel 2015; Kamal et al. 2014; Morrison 2011).

The research also found that a variety of initiatives in the region also offer examples of biocultural design and innovation in First Nations food systems (Davidson-Hunt et al. 2012; 2016), from the Riverside Market Garden to the Muskeg Lake Cree Nation food forest. It highlighted how First Nations are engaging in different forms of enterprise and are attempting to create spaces for entrepreneurship to flourish (Anderson, Dana and Dana 2006; Davidson-Hunt and Berkes, eds. 2010; Pengelly and Davidson-Hunt 2012). Yet, the findings challenge how we perceive what innovation might look like in the region. Innovation can and does involve new growing techniques and approaches, but it is also tied to the way that local First Nations are beginning to use food production as an avenue and mechanism to enrich culture and heritage and promote Indigenous Community Development and Indigenous Economies. The FNFFP sector in Central Saskatchewan offers an interesting site for future research around *social* innovation (Cajaiba-Santana 2014), its role in rural development (Neumeier 2012), and how, in an Indigenous context, this may be one way of exercising decolonization.

At an applied level, this research facilitated connections between the various Champions within the sector and built or strengthened networks between these Champions. A strong network of Champions thus enables the sharing of ideas, mentorship and collaboration (Richardson 2000). Events like the Champions Workshop are one example, but others include the poster-drawing workshop and participation in community events where knowledge could be shared, critiqued and supplemented to aid both the thesis and community members engaged in the

research. In addition, this research may be a useful example of how a non-Indigenous researcher can engage with Indigenous communities in the region and take on a community engaged approach to research. While not explicitly part of research findings, the community-engaged components of this research add complexity to what makes any research with Indigenous communities “decolonizing” or what may be perpetuating colonial power imbalances in academia.

7.2 Final reflections

Despite ongoing barriers of colonialism, poverty and dependency, First Nations communities in the region are revitalizing their food systems and recognizing their abundant – not scarce – ability to grow their own food to meet their own development goals and aspirations. The current state of the region’s FNFFP sector suggests that while activities like farming are not experiencing an obvious resurgence, there does appear to be momentum in other forms of, often smaller-scale, community-oriented food production. Rather than a resurgence, First Nations are reimagining what an Indigenous food system in this part of the world might look like. This reimagining constitutes a departure from agriculture as *the* major activity, to growing food as a community- and capacity-building social good. However, this reimagining is still in its infancy, with most of the initiatives featured in this research, and many of the sector Champions, only having become prominent or active in the past twelve years or so. At this time, they can still be considered to be on the margins, suggesting the reimagined sector is only in its initial phase. Both historical and recent development schemes have mostly been oriented towards large-scale economic development through agriculture (Carter 1990; Magnan 2014; Desmarais et al. 2017). Ongoing monitoring and future research will be needed, on initiatives across scales, as they mature.

Champions within the sector are crucial sources of skills, innovation and entrepreneurial thinking for the sector to grow, yet more First Nations Champions, especially young people, are needed to create and maintain value-added work on reserves. Supporting organizations are also needed, yet they cannot come from a place of top-down agro-industrial economic transformation (Richardson 2000; Verbos, Henry and Peredo (eds.) 2017). While organizations like Canadian Feed the Children are promoting a cluster or network of nation-to-nation partnerships, these partnerships cannot be forced and may need more time to develop on their own. Finally, Muskeg Lake Cree Nation’s food forest was discussed as a potential model for First Nations community

development, notably in the realm of food production and food systems. They are still confronting numerous barriers to development in their communities, as are many other First Nations. Yet the intent of the food forest is to acknowledge, work around and hopefully help address some of the barriers. Some potential successful strategies can be found in their pragmatic, youth-oriented approach. They are making use of what capacity they already have in their communities, taking in expertise and training as needed, while trying to keep and build precious resources within or between communities. They are also placing youth at the core of the initiative, getting them invested and building pride and ownership at an early age as they will be the stewards of the food forest in the future. While every community is different, they pose an interesting and insightful case for other First Nations communities interested in changing how they see, grow and share food in their community.

Only towards the end of working on this thesis did I realize that what was happening in the FNFFP sector might be an example of social innovation. At the outset, I was initially looking for specific tools, practices or technologies that were being used as part of FNFFP initiatives. Instead, the innovation appears within this movement towards self-sufficiency, rather than as any specific technology or new set of activities. At the heart of communities' drive towards self-sufficiency is decolonization, and this research has provided further evidence that food has become a significant vehicle for decolonization among First Nations communities in the region. However, the movement towards decolonized food systems is less about growing "Indigenous" foods, but more about how and why these foods are grown, and how growing food can and should form part of a revitalized Indigenous food system.

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APPENDICES

Appendix A: Timeline of data collection points and activities

Table A.1: Timeline of data collection points and activities

Date	Activity	Location
February 2018	Food security committee meeting	MLCN
June 2018	Research agreement with MLCN	MLCN
June – December 2018	Archive and document review	Saskatoon, SK
June 2018	Treaty Day, MLCN	MLCN
July 2018	Family literacy camp	MLCN
July 2018	Champion interview	MLCN
August 2018	Champion interview	Meadow Lake, SK
August 2018	Champion interview	Ahtahkakoop Cree Nation
September 2018	Champion interview	Saskatoon, SK
September 2018	Champion interview	Prince Albert, SK
October 2018	Food security committee meeting	MLCN
October 2018	Champion interview	Ahtahkakoop CN
October 2018	Tree planting day	MLCN
November 2018	Champion interview	Saskatoon, SK
November 2018	Elders' Council meeting	MLCN
November 2018	Champion interview	MLCN
November 2018	Elder interview	MLCN
November 2018	Champion interview	Winnipeg, MB (Skype)
December 2018	Food forest youth poster-drawing	MLCN
December 2018	Champion interview	MLCN
December 2018	Indigenous Food Forum	Wanuskewin Heritage Park, SK
February 2019	Champion interview	Beardy's and Okemasis CN
February 2019	Seed Saving Workshop	MLCN
February 2019	Champion interview (x2)	Muskoday First Nation
March 2019	Food Security Committee meeting	MLCN
April 2019	Food Security Committee meeting	Ahtahkakoop CN
June 2019	Treaty Day, MLCN	MLCN
August 2019	Family literacy camp	MLCN

Appendix B: Elder interview guide

Interview Guide for Elders and Knowledge Keepers of historical farming and food production practices

Interviewee Code Number:

Date:

Location:

Tape details (if applicable):

Thank you for meeting with me. I would like to start by asking about your personal and family's experience with farming and growing food. You do not have to answer a question, and we can continue on. We can stop the interview at any time.

- Did you grow food?
- What caused you to begin growing it?
- If you stopped, why did you stop?

Thank you. Now I would like to ask about the history of farming and growing food in your First Nation.

Touching on the themes:

- What kind of farming and food production practices did First Nations people engage with in the Saskatchewan? Was this prominent or not very common?
- What traditional knowledge exists around farming in local FNs?
- What roles did your family and upbringing play?

Thank you. Now I want to move on to the final portion of the interview and talk about tradition and farming/growing food today. Remember you do not have to answer any question you do not want to answer.

Touching on the themes:

- How can traditional knowledge support First Nations farming and food production today?
- Is there a relationship between farming now and farming in the past?
- How does farming or growing your own food help your heritage and your community?

Thank you again for your time. If you feel I have missed anything you would like to share, you may tell me now or follow up with me at another time.

Appendix C: Champions interview guide

Interview Guide for “Champions” of First Nations farming and food production initiatives in Central SK

Interviewee Code Number:

Date:

Location:

Tape details (if applicable):

To start with, I’d like to ask you a few questions about yourself.

1. What community are you from / what organization do you work for?
2. How long have you worked in this community / for this organization?
3. What role do you play in the community / what is your job with this organization? (i.e. volunteer)

I’d like to ask you a little more about your role in your organization/community related to farming and food production in/with First Nations in Central Saskatchewan. There are no right or wrong answers, I’d just like to know more about your experiences.

4. What do you know about the history of farming in your community or the community (communities) you work in?
 - a. And more generally among First Nations in the Prairies?
5. What got you interested in farming / food production / food systems?
6. What foods do/did you grow/raise? (with others, in your organization)? Why those foods?
 - a. Is there a type(s) (e.g. vegetables, dairy, grains, horticulture, meats, wild foods) that you consider more prominent than others being grown/produced by FNs?
7. To what extent do these activities relate to traditional farming/food production practices and knowledge in the community / region?
8. What kind of farming methods do/did you use and/or promote (i.e. large scale, community garden, organic)?
 - a. What about other FN initiatives you know about... is there a type of producer/processor that you consider more active or prominent than others? Has this changed over time?
9. To date, what have been key “successes” related to the initiative / activities you’ve been involved in or have been promoting?
 - a. Are there things you would have done differently? Which? Why?
10. What role does the community (you are from / working in) play in the activities / initiatives you are involved with?
 - a. What did the community and/or community members do as part of planning and carrying out the initiative?
 - b. Has their involvement changed over time?
 - c. Has there been any resistance locally/internally? Can you tell me why?
11. In the initiatives you are involved with or promote, is the relationship with non-Indigenous farmers in the area a significant one? How so?

12. How important is community buy-in to the long-term success or sustainability of these kinds of initiatives?
13. How do you see these activities / this initiative evolving?

Thank you. Now I'd like to ask you about challenges facing FNs around food production, and the role of external organizations and agencies

14. For FNs wanting to develop farming / food systems, how important are external organizations / agencies as sources of support?
 - a. What organizations/agencies were available to support your initiative?
 - b. When you are get started with these kinds of initiatives, is it easy to identify the support that might be available?
15. If you were unable to get support for your initiative, can you elaborate why not?
16. When you are getting started with these kinds of initiatives, how easy is it to identify if and where support is available?
17. Do you feel that more support is needed, or not?
 - a. What needs to change?
 - b. What organization/agencies are doing an important job? How so?

Ok. Great. Thank you. In this final section, I'd like to learn about the drivers behind FN interest in farming and food production, and the potential for the sector to grow.

18. For FNs interested in farming / food production, what do you think drives their interest?
19. What would you say is the main goal with the initiative(s) you are involved with or promote? What is the community's main goal? *(ask why, if they are different)*
20. How important is:
 - a. Economic development?
 - b. Food security/food sovereignty (do you see a difference between the two?)
 - c. Connection to the land?
 - d. Sustainability?
 - e. Health?
 - f. Opportunities for youth?
21. Do you think FNs' historical experiences with farming / growing food influence levels and types of interest today?
22. Why do you think FN communities are or would be interested in starting up farming or food production initiatives?

Growth:

23. Do you see farming/food production among FNs in Central SK as an identifiable sector?
 - a. Do you see the sector growing?
 - b. Why? What does it need to grow?
24. Do you see partnerships between First Nations as a way to strengthen and grow the sector?
25. Do you see partnerships between First Nations and non-Indigenous farmers/producers/processors as a way to strengthen and grow the sector?

Thank you for sharing your thoughts and experiences with me. One final question:

26. Do you know of other individuals knowledgeable about FNs farming or food production in Central SK that you think I should reach out to? Who might have interesting insights to offer, connected to the questions I have asked you?

Appendix D: Champions Workshop reflection and summary

What's *Growing on* in Central Saskatchewan?

Workshop Summary

March 15, 2019

Workshop Participants:

Dorothy Ahenakew – Ahtahkakoop First Nation, Saskatchewan
Program assistant for Canadian Feed the Children in Ahtahkakoop
Community garden and school garden
Upcoming projects: Kids cooking classes

Dean Bear – Muskoday First Nation, Saskatchewan
Lands Manager
Upcoming projects: Container farms and individual gardens

Erika Bockstael – Winnipeg, Manitoba (via Skype)
Director, Canada Programs, Canadian Feed the Children
Overseeing CFTC projects in Saskatchewan and across Canada

Anthony Dreaver-Johnston – Mistawasis Nêhiyawak
Special Projects Coordinator
SENS Indigenous mentor
Honour the Water project
Interest in food production projects in Mistawasis

Len Sawatsky – Meadow Lake, Saskatchewan
Former Manager of Riverside Market Garden, Flying Dust First Nation
Green Certificate Program Saskatchewan

Frank Tecklenburg – Vanscoy, Saskatchewan
EarthConnections, Northern Constar
Garden Tower 2, various horticulture projects in Saskatchewan
Morning Discussion: Food production in Saskatchewan First Nations

Our morning conversation revolved around me presenting some of the factors that influenced this sector, as identified by historical documents, literature and through the interview data collected previously from the champions. To facilitate the discussion, I drew out some of the First Nations in Plate 1 below (seen as blue squares) and connected them to various types of farming/food production projects they worked on in recent years, are currently working on or are wanting to initiate soon. I also included some notes (mostly in faint green and pink) identifying

some of the helpful assets or networks available, as well as some key missing factors that are needed to carry this sector further.

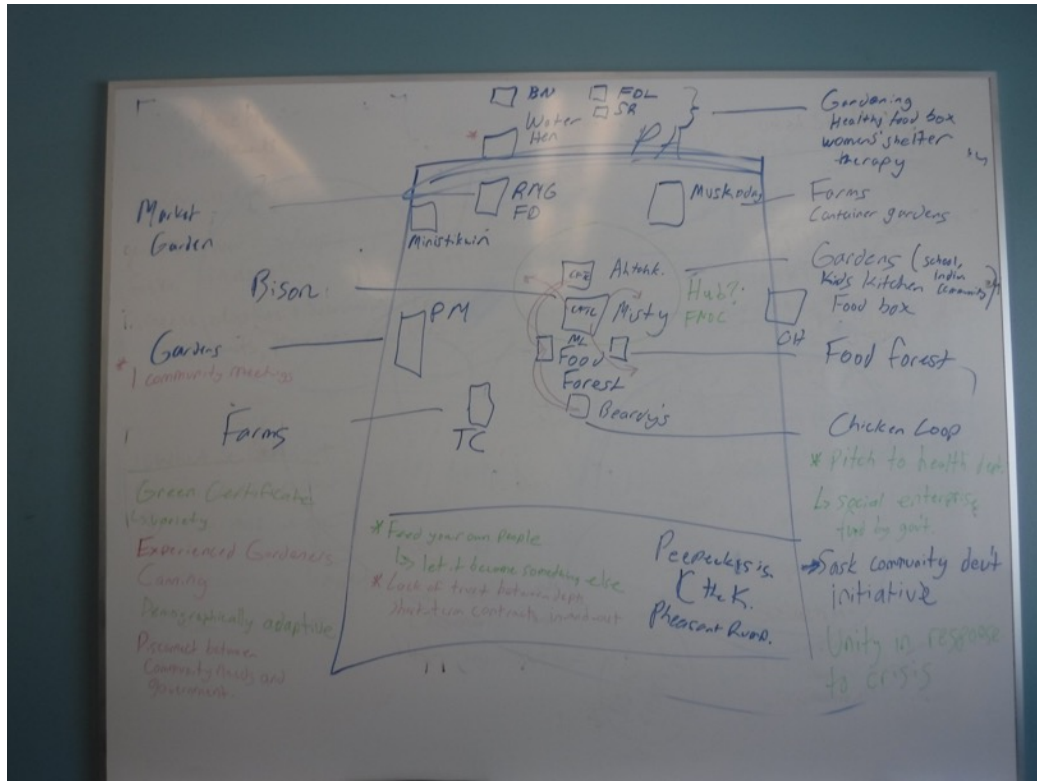


Plate D.1: Farming and food production initiatives in Central Saskatchewan

Some key ideas raised were that projects need to be geared to “feed your own people – let it become something else”, such that the priority needs to be feeding people first, and the project can organically evolve into a larger scale only if the initial goal of feeding people is met. A related issue for project sustainability is the “lack of trust between departments”, such that many people working in various departments are on “short-term contracts” and they’re “in and out” rather than having enough longevity on reserve to build networks and relationships with each other. The champions identified in their interviews that these networks are crucial to the success of a community food initiative; thus, greater employee retention is needed to keep projects going. Another key idea was the need for sourcing skilled individuals internally, as well as getting external certification. The champions mentioned that finding individuals with specific expertise or equipment i.e. tilling, canning, etc. is very helpful – maximizing the assets the community already has. Additionally, they also emphasized the importance of training and takeaways from training or skill-building activities, such as documents or certificates. This helps community members assert their skills to outside organizations or employers and allows them to carry their skillset forward rather than be isolated or squandered because of a lack of perceived employability. Finally, one of the closing ideas for the morning session was around “unity in response to crisis”, such that crises are often the initial driver to get people together, overcome

some differences and look to address a common goal. Regarding farming and food production, if food insecurity or imposed dependence on outside food (the opposite of food sovereignty) is presented as a crisis, then people may be more inclined to come together and use their individual expertise to collaborate towards a common resolution.

Our conversation identified a profound, yet relatively emergent and unknown, movement by individual First Nations across Saskatchewan who are producing food. However, our conversation raised the need for a network between individual nations for the sector to grow or scale up. At this point, any networks being built are informal; between people who happen to share an interest in food production of some fashion but not partnerships between communities. One participant mentioned a potential sponsorship opportunity between communities, and after only three came forward as interested, the one potential corporate sponsor's offer was declined because it meant accepting terms that were antithetical to their food production initiative. This example highlights the issue of trying to collaborate on a higher, band-to-band or institutional scale because of differing interests, animosity and inappropriate funding or sponsorship frameworks that hinder, rather than foster, First Nations farming and food production initiatives and networks.

Afternoon Discussion: Crucial “Ingredients” for successful food production projects

The afternoon session involved splitting our champions into two groups: one to discuss the internal factors necessary to start and maintain a farming or food production initiative in a First Nation community, and the other to discuss external factors necessary to support a community in their initiative. Three participants sat with me and discussed the internal factors, while the other two sat with Jim and discussed the external factors. We spoke separately for around 40 mins before reconvening and bringing our ideas together to draw some main points or ideas for what needs to happen – internally and externally – for an initiative to be successful and grow.



Plate D.2: The champions reconvened to discuss internal and external factors for a successful food production initiative in a Saskatchewan First Nation

Some key highlights of internal factors were: the project needs to be “simple and accessible” as well as “small and manageable” so that people can easily participate and they maintain interest, rather than get overwhelmed; go to the community first and make yourself well known so that you know what people’s priorities are and they know what you can do for them; find other champions and connect with them, as it creates a ripple effect through the community and gives momentum to the project, and; create a reason to stay, such that once people get involved, they want to remain engaged over the long-run. Some external factors were: make food security relatable by reaching out to experts and having them talk with community members. These experts are also just as valuable as funds because they can provide the missing pieces to get people trained and motivated; build networks with other champions, but do it organically, such that people have venues to connect; build trust in the community and with others by meeting in person; find new funding avenues to build capital; make grants more accessible and adaptive for First Nations projects; recognize traditional expertise (which applied to internal factors as well), and; closing the tech/communications gap between First Nations and the rest of Canada. While this list may seem large and somewhat ambiguous, they clearly define the specific areas that need attention so that First Nations communities can grow their food production initiatives, whatever form they may come in.

Personal Reflections

First and foremost, I am extremely grateful to the participants for coming and sharing their knowledge and expertise. Each of them have done some exceptional work, and so much more is yet to come from them and their endeavours. While I was initially fearful we may not have

enough people to have a sufficient discussion, I found that we had a very balanced and manageable group so that we had enough time for in-depth discussion where everyone was able to speak. I also found that the participants we had covered a lot of ground in terms of perspectives and experiences: three Indigenous participants, including one woman, each had very different roles in their community and with outside organizations. The other participants, including one woman, came from outside Indigenous communities, but brought experience with project design, innovation and management when working with Indigenous communities. I felt this covered “6 corners” of what types of people, groups or organizations make up the First Nations farming and food production sector in Central Saskatchewan.

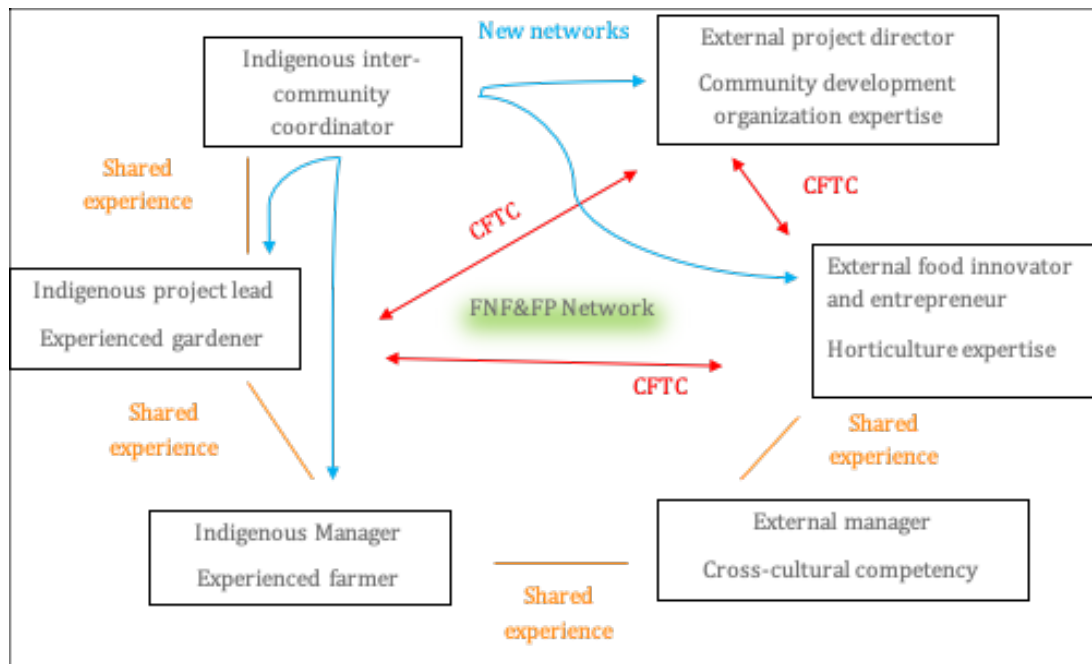


Figure D.1: FNFFP network as seen in the Champions Workshop

The above figure tries to illustrate the champions and how the “six corners” of First Nations farming and food production network existed and has evolved with the workshop. In the above figure, I noted a few of the notable connections and interactions that existed before the workshop, as well as “new networks” that formed through the workshop. In this scenario, we can see that CFTC as an organization worked as a catalyst that brought individuals and expertise together. My role as an academic conducting research also acted as a catalyst and encouraged interaction between people, who may have been working in the same sector, but did not yet have the opportunity to meet. Within the interactions, many of the individuals are able to bond over shared experiences; being Indigenous in Saskatchewan, working with Band governance, for example. This small sample of people and respective institutions demonstrates a microcosm of individuals and expertise found – and necessary – for First Nations farming and food production to be an identifiable sector in Central Saskatchewan.

Appendix E: Muskeg Lake Cree Nation Research Agreement

(Abridged Version: Only section 2 included here)

Section 2: Muskeg Lake Research Protocol

This section will specifically address the research protocol requested by Muskeg Lake Cree Nation, in accordance with *nêhiyaw wiyasiwêwina*.

Why am I interested in Muskeg Lake?

As mentioned in the research design, Muskeg Lake Cree Nation has expressed their interest in a “food forest” in partnership with Canadian Feed the Children (CFTC). While looking for examples of First Nations farming and food production initiatives, I was initially put in contact with Dr. Erika Bockstael of Canadian Feed the Children, who then connected me to Glenna Cayen (Community Program Coordinator in Saskatchewan for CFTC, and a Muskeg Lake CN resident). I met with Glenna on March 21st, 2018 to discuss my research interests and talk about her work with CFTC at Muskeg Lake CN, and this led to an invite to attend a meeting of Muskeg Lake’s Food Security Committee on April 16th, 2018.

At the committee meeting I learned more about the “food forest initiative”, some current food-related issues in the community, and the role of Holistic Landscape and Design – hired by the community to help design and implement their food forest vision. In the meeting, we were able to discuss how my research could be involved in this process and how I could collect data that both supported their need to engage with the broader community membership and meet my own research interests.

Community Benefit

As discussed in the meeting, my research will benefit the community in two specific ways: first, I can help facilitate focus groups or “coffee chats” with different demographics of community members in Muskeg Lake (i.e. youth, elderly, women, men, etc.) as chosen by the community. This assistance will help reduce the workload of the food security committee and CFTC by allowing me to run the focus groups and work through data collected. Second, the data I collect will help gauge the level of engagement and interest community members in Muskeg Lake have towards a food forest, hopefully addressing their desires, concerns, different perspectives and more. These data will be useful in understanding if the food forest project is something that would drive community engagement, identify changes that would help with engagement, or see if the project is not something that community members want. Conclusions will be drawn based on community member perspectives and opinions. My role is to facilitate the data collection process and present any concepts or themes that emerge as part of my data analysis.

Another potential benefit will be through recordings of my interviews with Elders regarding the history of farming and food production in Muskeg Lake. Recording the interviews means that any Traditional Knowledge (such as history, life experience, stories, etc.) can be permanently recorded and be accessible to community members indefinitely. The recordings will help facilitate my own research interests, but as per the Research Protocol, Muskeg Lake Cree Nation will have the right to maintain, control, protect and develop intellectual property over the data collected.

Lastly, my research provides a space for community members to get excited and passionate about a food forest project that is unique in Saskatchewan, if not in Western Canada. I find it very exciting myself! It is an opportunity for community members to have their ideas and voices guide a project designed in Muskeg Lake CN, by Muskeg Lake CN. They can be active participants in shaping the food forest, and I hope that findings from the proposed research can act as a useful reference point in decision-making.

Potential Publication

The research conducted with Muskeg Lake will be published in a few various forms, given the consent of the participants and in adherence to the expectations outlined in the Research Protocol. Much of this section is already covered under “Knowledge Mobilization” in the Proposal Outline section. Primarily, my research with Muskeg Lake will contribute to my thesis as required for my Master of Environment and Sustainability (MES) from the University of Saskatchewan. In addition to my thesis, I plan to publish two academic articles: one may revolve around the “champions” of farming and food production in Central Saskatchewan and the other may specifically address the research with Muskeg Lake Cree Nation and the food forest initiative. These topics are tentative, however. Any publication involving the knowledge of Muskeg Lake CN will require prior permission and framing by the community before going ahead. All participants will be rightfully informed and acknowledged in all and any publications that result from the research as deemed appropriate by the individual and the Nation.

In addition to the academic publications, some information may be included in reports from Holistic Landscape and Design, and Canadian Feed the Children. However, Muskeg Lake would have final say on the content and distribution of these reports. I also plan to present some of my research findings at regional and national conferences. However, the content of these presentations will need to be reviewed and approved beforehand by Muskeg Lake CN.

Access

Upon successful defense of my Master’s thesis, data from focus groups and Elder / Knowledge Keeper interviews will be transferred to Muskeg Lake Cree Nation, given the consent of participating individuals. Hard data such as transcripts and audio recordings can be given in electronic (likely on a USB drive) and hard-copy form as desired. The data in the

researcher's possession will subsequently be destroyed. Stories and other Traditional Knowledge from Elders will be collective property of the First Nation.

Risks

There are potential risks and to participating in this study, however they can be mitigated. Potential risks for individual participants include possible opinions and comments shared in the study, which may put them at risk of being perceived in a negative light in the community. However, if participants choose to maintain confidentiality, every precaution will be taken to ensure that they will be unidentifiable. I can attempt to maintain confidentiality in individual interviews, but this is difficult if the participant is a public figure and I will raise this caution during the consent process. Participants in focus groups will not be able to maintain confidentiality; however, I can limit disclosure of names and paraphrase information instead of specific quotes. Regarding willingness to participate, participants are free to withdraw from the study at any time, and any transcripts or recordings of theirs will be destroyed and excluded from the research.

Individual and focus group participants may be asked questions such as "What do you think are the major obstacles to farming and food production in the community or organization?" In such a question, they may be asked to assess the effectiveness of the local or federal government and may find themselves in a position to criticize them. As a result participants may have their name be associated with that opinion. They can avoid this either by seeking confidentiality (in individual interviews), or by not answering the question.

Participants may also be asked questions such as, "Do you think a food strategy could be created in collaboration with farmers and food producers outside of your community?" Sometimes, participants may be concerned about their reputation with others, especially when discussing non-Indigenous/Indigenous relationships. They can avoid this and similar kinds of situations by seeking confidentiality (in individual interviews), or by not answering the question.

Lastly, participants may also be asked a question such as "Can you think of any events in the past that made farming seem positive or negative for you and/or your community today?" This may raise uncomfortable or potentially traumatic memories. To avoid any further discomfort, they may choose not to answer the question, or share only as much information as they are comfortable. Before any research begins, I will consult with local health services, such as a Mental Health Worker to identify appropriate counselling and crisis services and provide their contact information.

Potential risks the community may face are limited due to the degree of control the community has over what research is taking place, what kind of data is being collected and who can see that data. However, a risk always exists for data to be hacked or stolen, including emails and other digital messages between the researcher and participants. Any communication between participants will be through private, individual emails and conversations. Should data be

knowingly compromised in any way, Muskeg Lake will be notified immediately and we can discuss next steps.

Training and Employment

My research will not be able to provide any specific training or employment for Muskeg Lake Cree Nation. However, I would be happy to meet with anyone interested in research, university or other potential topics of interest and share my knowledge either individually or to a group, such as an elementary school class. With consent from focus group participants, I would also be willing to have an individual community member sit in on a focus group to learn how to conduct one, as well as teach them how to use data analysis software should they want to conduct their own research in the future.

Privacy

I have already discussed how privacy will be prioritized throughout the research, with data restricted to participants only, confidentiality and collective ownership of intellectual property held by Muskeg Lake Cree Nation. Individual and group privacy is also addressed in the appendix, as seen in the Written Consent forms. Photographs will be taken only with the permission of individuals involved in the photo. If a person or their property is in the photo, they will be asked for their consent before the photo is taken. I will also seek consent for photos of places that may be considered sensitive or sacred and restrict its access to individual, family, or community levels of censorship.

Confidentiality

Data will be stored on a password protected laptop and backed-up on securely-stored separate hard drives, as well as in the secure Cabinet cloud through the University of Saskatchewan. Transcripts and transcript release forms will be kept in a filing cabinet in the Researcher's office, with consent forms separate from interview transcripts. Muskeg Lake Cree Nation will be able to access data related to the Nation – such as field notes or photographs that do not compromise the confidentiality of participants – during the research project. Information from other individuals unrelated to Muskeg Lake will not be accessible (i.e. champions not affiliated with Muskeg Lake Cree Nation). Individuals may request to listen to their own recordings and see their own transcripts, however if participants want to access audio/written transcripts taken from focus groups they will only be able to access their own input and not others' data. Note, this request will take time to sort through data to isolate individual data. As stated in the Access subsection, all data will be transferred to Muskeg Lake Cree Nation, barring any data that individuals explicitly wish to remain private or be destroyed.

Recording of Data

Information collected during the project will remain in possession of the researcher in the form of audio recordings, transcripts, written/typed field notes and photographs. A digital audio recorder will be used to record interviews and focus groups. A notepad and/or laptop will be used to type down brief field notes. Audio recordings will be transcribed and will be saved/stored as digital and hard copy documents.

Participants will be informed through the Written Consent (Appendix G) which I will go through with participants before each interview or focus group. They will be asked if they may be recorded or not, if they wish to remain anonymous, if they consent to transferring their data to Muskeg Lake Cree Nation upon completion of the research and if they want a copy of their transcript/recording. All participants will have the opportunity to follow up and review their data and request censorship or provide clarification if they felt they were unclear.

Data such as stories from Elders / Knowledge Keepers will be made available to the community (with the Elder's consent) as cultural heritage. For example, I may be able to get a copy of a story or transcript bound for the community to access and read as they wish. Photographs will be available for the community to use and publish given the prior consent of release by individuals present in the picture or by places/property displayed in the photograph.

Appendix F: Signed Research Agreement with Muskeg Lake Cree Nation (Signatures withheld)



PETER FRIEDRICHSEN

MES CANDIDATE | SCHOOL OF ENVIRONMENT AND SUSTAINABILITY, UNIVERSITY OF SASKATCHEWAN
KIRK HALL, 117 SCIENCE PLACE, SASKATOON, SK
S7N 5C8

The Muskeg Lake Cree Nation Chief and Council hereby agrees to grant the recipient, **Peter Friedrichsen**, permission to conduct research with Muskeg Lake Cree Nation as part of his studies for a Master of Environment and Sustainability at the University of Saskatchewan, under the supervision of **Dr. James Robson**. This adheres to our Research Protocol – approved by the Chief and Council of the Muskeg Lake Cree Nation on November 14, 2012.

This document demonstrates that we have reviewed his Written Proposal Submission as presented to Band Council on August 20, 2018 and accepted his proposal as being in accordance with our nêhiyaw wiyasiwêwina, and that it contributes to miyo pimâtisiwin.

I, Peter Friedrichsen of The University of Saskatchewan have read, understand and am committed to following the research protocol of the Muskeg Lake Cree Nation.

Signed: _____

Date: September 6, 2018

COUNCILLOR

COUNCILLOR

CHIEF

COUNCILLOR

COUNCILLOR



MUSKEG LAKE CREE NATION

COUNCILLOR

COUNCILLOR

Appendix G: Elder interview consent form



UNIVERSITY OF SASKATCHEWAN
School of Environment
and Sustainability
USASK.CA/SENS



MUSKEG LAKE CREE NATION Written Consent Form (Individual Elder Interview)

Name of Researcher, Title, Faculty, Department, Telephone & Email:

Peter Friedrichsen, Master of Environment and Sustainability (MES) Candidate, School of Environment and Sustainability (SENS), University of Saskatchewan, (403) 993-4209. pjf669@mail.usask.ca

Name of Supervisor, Title, Faculty, Department, Telephone & Email:

James Robson. PhD. Assistant Professor, Human Dimensions of Sustainability, School of Environment and Sustainability (SENS), University of Saskatchewan. Room 336, Kirk Hall Saskatoon, SK S7N 5C8 james.robson@usask.ca Phone: (306) 966-1017

Name of Community Project Coordinator, Affiliation, Telephone and Email:

Glenna Cayen, Canadian Feed the Children (CFTC) (306) 281-8102
GCayen@canadianfeedthechildren.ca

Title of Project:

Taking up the Plow (again)? Exploring the history and resurgence of First Nations farming and food production in the Canadian Prairies

Sponsor:

James Robson, SENS, University of Saskatchewan, through: SSHRC Insight Grant '*Ethno-biology Design and Food System Innovation for Indigenous and Local Communities in Canada and Bolivia*' (2015-2020, Davidson-Hunt PI)

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Saskatchewan Behavioural Research Ethics Board (REB) has approved this research

Purpose of the Study

To explore the decline and re-emergence of First Nations farming and food production in a region of the Canadian Prairies, and its potential contribution to contemporary community development pathways, guided by this objective:

1. Document the history of Indigenous (First Nations) farming practices and food production in the Canadian Prairies and in Central Saskatchewan specifically.

What Will I Be Asked To Do?

- You will be asked to participate in a one-on-one interview. Each of the interviews will last approximately 60 minutes. You will be assigned a code number for your transcript.
- The interviews will ask questions largely focused on the history of farming in your community including:
 - The role of traditional foods in past farming practices,
 - Various policies and events that helped or hindered farming in the past; and,
 - How the historical experiences with farming may or may not be relevant today.
- You will not be asked about songs, stories, your traditions, medicinal uses, special places or anything you perceive to be traditional knowledge. You do not have to disclose any information about traditional knowledge that you do not feel comfortable sharing. No traditional knowledge will be included in any of the Researcher's publications; it will only be used to help guide data analysis. Upon the Researcher's successful defense of his Master's thesis, all transcripts and recordings will become the collective property of your First Nation and the researcher's personal copies will be destroyed.
- If you do not feel comfortable with any of the questions, you have no obligation to answer them. If at any point during the interview, or after the interview is over, you do not want your information used, you can let me know and it will be withdrawn from this study and destroyed.
- With your permission, I will take notes on a notepad or laptop, and during the interview I may ask to record the conversation, as it is sometimes difficult to track everything being said and record it accurately. If at any point, you do not want to be audio-recorded, you can tell me and I will stop and destroy the information collected.
- If you would like to follow-up after the interview is completed, you can leave your contact information with me (phone number, email or physical address). You will also have a chance to review your transcript before it can be used for any data analysis.
- Your participation is completely voluntary. You may refuse to participate altogether, may refuse to participate in parts of the study, may decline to answer any and all questions, and may withdraw from the study at any time.

What Type of Personal Information Will Be Collected?

- For participants who chose to remain confidential, no personal identifying information will be collected.
- For participants who feel comfortable disclosing some personal identifying information, you will be asked to provide your first name, last name, gender, age and occupation. You may also choose to use a pseudonym.
- For participants who wish to be contacted with follow-up questions or further interviews, you will be asked to provide the Researcher with a way to contact you.

Are there Risks or Benefits if I Participate?

There are potential risks and benefits to participating in this study, and they are listed below:

- Potential risks include possible opinions and comments shared in the study, which may put you at risk of being perceived in a negative light in the community. However, if you choose to maintain confidentiality, every precaution will be taken to ensure that you will be unidentifiable. The Researcher can attempt to maintain confidentiality in individual interviews, but this is difficult if the participant is a public figure and I will raise this caution during the consent process.
- You may be asked questions such as “What do you think were some major obstacles to farming and food production in the community or organization?” In such a question, you may be asked to assess the effectiveness of the local or federal government and may find themselves in a position to criticize them. If you do not choose to maintain confidentiality, their name may be associated with that opinion. If you do not choose to maintain confidentiality, your name may be associated with that opinion. You can avoid this either by seeking confidentiality, or by not answering the question.
- You may also be asked questions such as, “How would you describe the relationship with settler farmers in the past?” Sometimes, participants may be concerned about their reputation with others, especially when discussing settler-Indigenous relationships. You can avoid this and similar kinds of situations by seeking confidentiality, or by not answering the question.
- Lastly, you may also be asked a question such as “Can you think of any events in the past that made farming seem positive or negative for you and/or your community today?” This may raise uncomfortable or potentially traumatic memories. To avoid any further discomfort, you may choose not to answer the question, or share only as much information as you comfortable.. Contact information for local health, counselling and crisis services is provided below.
- A risk always exists for data to be hacked or stolen, including emails and other digital messages between the Researcher and participants. Should data be knowingly compromised in any way, you will be notified immediately and the Researcher will collaborate with you towards next steps.

There are also benefits to participating in this research, which are listed below:

- One potential benefit of participation in this study is the ability to openly communicate and express opinions and thoughts on farming and food production in a safe manner, in private. This may give you a platform to openly air your ideas and concerns about farming and food production that can lead to positive outcomes in your organization or community.

- Another potential benefit of participation in this study is that the results will be made available to the your community, or to partner organizations, to help create and draw up an appropriate farming and/or food production strategies. These entities may make this information available in discussion and decisions on future food security and food sovereignty issues, whether within the community/organization or with other interested actors. There is no guarantee that the findings in the research will be used in policy and decision-making, but every effort will be made to ensure that, where appropriate, overall general findings are made available to supportive organizations and policy agencies.
- Concerning Muskeg Lake Cree Nation, historical knowledge will be useful in understanding if the Food Forest project is something that would drive community engagement, identify changes that would help with engagement, or see if the project is viable for the community. Conclusions will be drawn based on community member perspectives and opinions. My role is to facilitate the data collection process and present any concepts or themes that emerge as part of my data analysis.
- Another potential benefit will be through recordings regarding the history of farming and food production in Muskeg Lake. Recording means that any Traditional Knowledge (such as history, life experience, stories, etc.) can be permanently recorded and be accessible to community members indefinitely. The recordings will help facilitate my own research interests, but as per the Research Protocol, Muskeg Lake Cree Nation will have the right to maintain, control, protect and develop intellectual property over the data collected.

What Happens to the Information I Provide?

The only people who will have access to the information I collect from you will be the main Researcher, Peter Friedrichsen and Dr. Jim Robson (Supervisor/Principal Investigator – PI). The researcher always has a copy of the consent form at hand if you wish to consult it and see who will have access to the raw data from the study.

Your contribution will be treated with the utmost respect. If you choose to maintain confidentiality, no personal identifying information will be included. If you choose to have a pseudonym, no personal identifying information will be included except for the use of your pseudonym. Your information will be saved on a password-encrypted drive and on the secure Cabinet cloud, with no public access to ensure confidentiality of responses and protection of your identity. Please note: if you participate in the Workshop and/or are a public figure it will be difficult to guarantee confidentiality.

If you decide to withdraw from this study at any point in time, you will have the option of choosing to either:

- retrieve your original statements and answers to the study;
- ask the researcher to physically destroy all field notes and/or any physical recordings taken, and electronically delete all transcripts.

Participation is completely voluntary, and can be confidential. You are free to discontinue participation at any time during the study. No one except the Researcher and the PI will be allowed to see or hear any of the answers to the interviews or the interview tape. Confidential information will be generally summarized for any presentation or publication of results. The field notes, consent forms, transcripts and transcript release forms will be kept in a locked cabinet only accessible to the researcher and the parties

stipulated in your community's research agreement. All data will be transferred via hard drive to Muskeg Lake Cree Nation upon successful defense of the Researcher's Master's thesis.

There are several options for you to consider if you decide to take part in this research. You can choose all, some, or none of them. Please review each of these options and choose Yes or No.

I grant permission to be audio recorded (not required to participate in the study): Yes: ___ No: ___

I grant permission to have my first name used: Yes: ___ No: ___

I grant permission to have my last name used: Yes: ___ No: ___

You may quote me and use my name: Yes: ___ No: ___

I wish to remain confidential: Yes: ___ No: ___

I wish to remain confidential, but you may refer to me by a pseudonym: Yes: ___ No: ___

The pseudonym I choose for myself is:

You may quote me and use my pseudonym: Yes: ___ No: ___

I grant permission to have my age used: Yes: ___ No: ___

I wish to be contacted for a follow-up interview or meeting: Yes: ___ No: ___

I wish to have my individual data returned to me: Yes: ___ No: ___

The best way of contacting me is:

If at any point you want to revisit or revise any of the terms of participation in this study, you can contact me, we will destroy this consent agreement and draw up a new one.

Signatures

Your signature on this form indicates that

- you understand to your satisfaction the information provided to you about your participation in this research project, and
- you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project at any time. You should feel free to ask for clarification or new information throughout your participation.

Participant’s Name: (please print) _____

Participant’s Signature: _____ Date: _____

Researcher’s Name: (please print) _____

Researcher’s Signature: _____ Date: _____

Oral Consent

“I read and explained this Consent Form to the participant before receiving the participant’s consent, and the participant had knowledge of its contents and appeared to understand it.” In addition, consent may be audio or videotaped.

Name of Participant _____
Researcher’s Signature _____
Date

Questions/Concerns

If you have any further questions or want clarification regarding this research and/or your participation, please contact the researcher at the top of the page.

If you have any concerns about the way you’ve been treated as a participant, please contact the University of Saskatchewan’ Research Ethics Board (REB) at ethics.office@usask.ca (306 966-2975)

For counselling services, feel free to contact the local mental health worker at:(306) 466- 4914

A copy of this consent form has been given to you to keep for your records and reference. The researcher has kept a copy of the consent form.

Appendix H: Champions interview consent form



UNIVERSITY OF SASKATCHEWAN

School of Environment
and Sustainability

USASK.CA/SENS

Written Consent Form (Champions)

Name of Researcher, Title, Faculty, Department, Telephone & Email:

Peter Friedrichsen, Master of Environment and Sustainability (MES) Candidate, School of Environment and Sustainability (SENS), University of Saskatchewan, (403) 993-4209. pjf669@mail.usask.ca

Name of Supervisor, Title, Faculty, Department, Telephone & Email:

James Robson. PhD. Assistant Professor, Human Dimensions of Sustainability, School of Environment and Sustainability (SENS), University of Saskatchewan. Room 336, Kirk Hall Saskatoon, SK S7N 5C8 james.robson@usask.ca Phone: (306) 966-1017

Title of Project:

Taking up the Plow (again)? Exploring the history and resurgence of First Nations farming and food production in the Canadian Prairies

Sponsor:

James Robson, SENS, University of Saskatchewan, through: SSHRC Insight Grant '*Ethno-biology Design and Food System Innovation for Indigenous and Local Communities in Canada and Bolivia*' (2015-2020, Davidson-Hunt PI)

This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Saskatchewan Behavioural Research Ethics Board (REB) has approved this research

Purpose of the Study

To explore the decline and re-emergence of First Nations farming and food production in a region of the Canadian Prairies, and its potential contribution to contemporary community development pathways, guided by these objectives:

1. Investigate contemporary interest and activities in farming and local food systems among First Nations in Central Saskatchewan; and,
2. Explore entrepreneurship and enterprise regarding food production and processing among First Nations in Central Saskatchewan.

What Will I Be Asked To Do?

- You will be asked to participate in a one-on-one interview. The interview will last approximately 60 minutes.
- You will be asked questions largely focused on your work, such as:
 - What kind of farming and food production practices do First Nations people engage with in the region? How extensive or sporadic are these experiences?
 - What current farming and food production activities are you are working on? What motivated you to begin this initiative? What were/are some of the challenges and opportunities you faced?
 - How did you innovate to overcome challenges and build on opportunities?
- You may also consent here to participate in a Workshop at a later date with other interview participants. The purpose of the Workshop is to discuss general findings from interviews like yours, and deliberate of key issues affecting the sector in the region.
- NOTE: You may choose to participate in the interview and not the Workshop.
- If you are a member of a First Nation or identify as an Indigenous person, you will **not** be asked about songs, stories, your traditions, medicinal uses, special places or anything you perceive to be traditional knowledge, and therefore only belonging to your community.
- If you do not feel comfortable with any of the questions, you have no obligation to answer them. If at any point during the interview/Workshop, or after the interview/Workshop is over, you do not want your information used, you can ask for it to be withdrawn from this study and destroyed. Note, if you choose to participate in the Workshop your information cannot be fully confidential.
- With your permission, I will take notes on a notepad or laptop, and during the interview I may ask to record the conversation, as it is sometimes difficult to track everything being said and record it accurately. If at any point, you do not want to be audio-recorded, you can tell me and I will stop and destroy the information collected.
- If you would like to follow-up after the interview is completed, you can leave your contact information with me (phone number, email or physical address). If you would like to participate in

the Workshop, please leave your contact information with me.

- Your participation is completely voluntary. You may refuse to participate altogether, may refuse to participate in parts of the study, may decline to answer any and all questions, and may withdraw from the study at any time.

What Type of Personal Information Will Be Collected?

- For participants who choose to maintain confidentiality, no personal identifying information will be collected. Note, if you choose to participate in the Workshop, this option will not be possible.
- For participants who feel comfortable disclosing some personal identifying information, you will be asked to provide your first name, last name, gender, age and occupation. You may also choose to use a pseudonym. Note, if you choose to participate in the Workshop a pseudonym may be used for quotes, however full confidentiality is not possible.
- For participants who wish to be contacted with follow-up questions or further interviews, and/or would like to participate in the Workshop, you will be asked to provide the Researcher with a way to contact you.

Are there Risks or Benefits if I Participate?

There are potential risks and benefits to participating in this study, and they are listed below:

- Potential risks include possible opinions and comments shared in the study, which may put you at risk of being perceived in a negative light by colleagues or members of your community. However, if you choose to maintain confidentiality, every precaution will be taken to ensure that you will be unidentifiable. The Researcher can attempt to maintain anonymity in individual interviews, but this is difficult if the participant is a public figure.
- You may be asked questions such as “What do you think are the major obstacles to farming and food production in your community or by First Nations in the region?” With such a question, you may speak to the effectiveness of the local or federal government and may find yourself in a position to criticize them. If you do not choose to maintain confidentiality, your name may be associated with that opinion. If you do not choose to maintain confidentiality, your name may be associated with that opinion. You can avoid this either by seeking confidentiality, or by not answering the question.
- You may also be asked questions such as, “Do you think a food strategy could be created in collaboration with farmers and food producers outside of your community?” Sometimes, participants may be concerned about their reputation with others, especially when discussing Settler-Indigenous relationships. You can avoid this and similar kinds of situations by seeking confidentiality, or by not answering the question.
- Lastly, you may also be asked a question such as “Can you think of any events in the past that made farming seem positive or negative for you and/or your community today?” This may raise uncomfortable or potentially traumatic memories. To avoid any further discomfort, you may

choose not to answer the question, or share only as much information as you comfortable. However, if you participate in the Workshop others may bring up topics with uncomfortable or potentially traumatic memories. If that was to happen, you would be free at any time to politely ask to stop and change the conversation or leave the meeting. Contact information for local health, counselling and crisis services is provided below.

- A risk always exists for data to be hacked or stolen, including emails and other digital messages between the Researcher and participants. Should data be knowingly compromised in any way, you will be notified immediately and the Researcher will collaborate with you towards next steps.

There are also benefits to participating in this research, which are listed below:

- One potential benefit of participation in this study is the ability to openly communicate and express opinions and thoughts on farming and food production in a safe manner, in private. This may give you a platform to air your ideas and concerns about farming and food production that can lead to positive outcomes in your organization or community.
- Another potential benefit of participation in this study is that the aggregate results will be made available to participating or interested First Nations, as well as organizations supporting the sector, to help create and draw up an appropriate farming and/or food production strategies. These entities may make this information available in discussion and decisions on future food security and food sovereignty issues. There is no guarantee that the findings in the research will be used in policy and decision-making, but every effort will be made to ensure that, where appropriate, overall general findings are made available to relevant actors and agencies.
- Another potential benefit concerns your potential participation in the follow-up Workshop. The Workshop will provide a space to share your expertise and experiences with others living and working in the same field. It is also a significant learning and networking opportunity to understand the opportunities and challenges regarding farming and food production in First Nations in Saskatchewan, and more broadly.

What Happens to the Information I Provide?

The only people who will have access to the information I collect from you will be the main Researcher, Peter Friedrichsen and Dr. Jim Robson (Supervisor/Principal Investigator – PI). The researcher always has a copy of the consent form at hand if you wish to consult it and see who will have access to the raw data from the study.

Your contribution will be treated with the utmost respect. If you choose to maintain confidentiality, no personal identifying information will be included. If you choose to have a pseudonym, no personal identifying information will be included except for the use of your pseudonym. Your information will be saved on a password-encrypted drive and on the secure Cabinet cloud, with no public access to ensure confidentiality of responses and protection of your identity. Please note: if you participate in the Workshop and/or are a public figure it will be difficult to guarantee confidentiality.

If you decide to withdraw from this study at any point in time, you will have the option of choosing to either:

- retrieve your original statements and answers to the study;
- ask the researcher to physically destroy all field notes and/or any physical recordings taken, and electronically delete all transcripts.

Participation is completely voluntary, and can be confidential. You are free to discontinue participation at any time during the study. No one except the Researcher and the PI will be allowed to see or hear any of the answers to the interviews or the interview tape. Confidential information will be generally summarized for any presentation or publication of results. The field notes and field tapes will be kept in a locked cabinet only accessible to the Researcher and the PI. The data will be stored for five years on a separate computer disk, at which time it will be permanently erased.

There are several options for you to consider if you decide to take part in this research. You can choose all, some, or none of them. Please review each of these options and choose Yes or No.

- I grant permission to be audio recorded (not required to participate in the study):* Yes: ___ No: ___
- I grant permission to have my first name used:* Yes: ___ No: ___
- I grant permission to have my last name used:* Yes: ___ No: ___
- You may quote me and use my name:* Yes: ___ No: ___
- I wish to remain confidential:* Yes: ___ No: ___
- I wish to remain confidential, but you may refer to me by a pseudonym:* Yes: ___ No: ___
- The pseudonym I choose for myself is:*
- You may quote me and use my pseudonym:* Yes: ___ No: ___
- I grant permission to have my age used:* Yes: ___ No: ___
- I grant permission to have my occupation used:* Yes: ___ No: ___
- I wish to be contacted for a follow-up interview or meeting:* Yes: ___ No: ___
- I grant permission to participate in the Workshop at a later date:* Yes: ___ No: ___
- I grant permission to be photographed during the Workshop:* Yes: ___ No: ___
- The best way of contacting me is:*

If at any point you want to revisit or revise any of the terms of participation in this study, you can contact me, we will destroy this consent agreement and draw up a new one.

Signatures

Your signature on this form indicates that

- you understand to your satisfaction the information provided to you about your participation in this research project, and
- you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project at any time. You should feel free to ask for clarification or new information throughout your participation.

Participant's Name: (please print) _____

Participant's Signature: _____ Date: _____

Researcher's Name: (please print) _____

Researcher's Signature: _____ Date: _____

Oral Consent

“I read and explained this Consent Form to the participant before receiving the participant's consent, and the participant had knowledge of its contents and appeared to understand it.” In addition, consent may be audio or videotaped.

Name of Participant *Researcher's Signature* *Date*

Questions/Concerns

If you have any further questions or want clarification regarding this research and/or your participation, please contact the researcher at the top of the page.

If you have any concerns about the way you've been treated as a participant, please contact the University of Saskatchewan' Research Ethics Board (REB) at ethics.office@usask.ca (306 966-2975)

For counselling services, feel free to contact:

(This information will be specific to the locality of participants)

A copy of this consent form has been given to you to keep for your records and reference. The researcher has kept a copy of the consent form.