Vol. 9 No. 1, pp. 140–169 April 2022

Canadian Food Studies

La Revue canadienne des études sur l'alimentation

Review Article

Reframing food as a commons in Canada: Learning from customary and contemporary Indigenous food initiatives that reflect a normative shift

Jodi Koberinksi[a*], Jose Luis Vivero-Pol[b] and Joseph LeBlanc[c]

[a] University of Waterloo
[b] University of Louvain
[c] Northern Ontario School of Medicine

Abstract

This paper interrogates the role of the dominant narrative of "food-as-commodity" in framing food systems policy in Canada. Human values shape policies, usually privileging those policies that are aligned with dominant values and neglecting others that confront dominant values. In that sense, valuing food as a commodity privileges specific market-based policy goals, regulations, and public subsidies that aim to enlarge market coverage. This prioritizes both corporate profit over societies´ common good and private enclosures of commons resources over universal access to food for all. Conversely, the normative shift this paper proposes—valuing and governing food as a commons—could enable socio-ecologically based policy goals and regulations, and redirect public subsidies to support customary and contemporary practices that produce and distribute food differently. Such a normative shift, scholars have argued, is a prerequisite for developing legal frameworks that lead to more and better 1) self-production; 2) stewardship of natural commons; and 3) civic participation in the governance of a resource that is essential for everybody´s survival. Valuing food as a commons can provide a complementary narrative to alternative civic claims such as food sovereignty, agro-ecology, or food justice.
In this paper, we begin by outlining the theoretical basis for our investigation into the role of food valuation in the critical food guidance shaping public policy. Next, we provide an overview of the concept of food as commons through the multidimensional food values framework and

*Corresponding author: jakoberi@uwaterloo.ca
DOI: 10.15353/cfs-rcea.v9i1.504
ISSN: 2292-3071

offer a tri-centric governance model to frame the analysis. Following a brief policy context for Indigenous food initiatives in Canada, we then provide three case studies involving Anishnaabek food systems to explore valuation of food beyond commodity in customary and contemporary food systems. Finally, we discuss how valuing food as a commons offers critical food guidance for addressing multiple socio-ecological issues connected with food systems policy in the Canadian settler colonial context.

Keywords: Food commons; food governance; food systems; Indigenous food systems; settler colonialism

Introduction

We situate this research within the diverse landscape of food systems scholarship, and seek an interdisciplinary audience for this work. We recognize stark binaries rarely exist in complex societies, however this paper deals with a decidedly simplified heuristic to distinguish concepts constructed outside the assumptions of the dominant order. We seek the indulgence of our readers as we suspend the nuance a rich discussion requires, briefly, to discuss these novel concepts in a manner that de-centres the dominant point of view in which food is a commodity. Several terms we use lack a singular definition. As such, we offer the following clarifications.

Food systems

In Canada, the concept of "Food Systems" rather than "Food Chains" has been promoted by Food Secure Canada and the various grass roots organizations, researchers, and advocates engaged domestically and internationally for two decades (Martorell & Andrée 2019; Hammelman et al., 2020). Canada's Food Policy, adopted in 2019, states that food systems "include the way food is produced, processed, distributed, consumed, and disposed of, and they have direct impacts on the lives of Canadians" and that "Food systems are interconnected and are integral to the wellbeing of communities". (Government of Canada, 2019, p.3). We work with an expanded conceptualization of "food system" to include not just "production" in terms of annual agriculture, but also "production" within Indigenous food systems management within the broad territories and waters that have for hundreds, and in most cases for thousands of years, sustained First Nations and Inuit—active participants in creating food abundance—for whom inherent title and rights are recognized (Levkoe et al., 2019). We accept the analyses and working definitions in the International Panel of Food Systems Experts' major work, "From Uniformity to Diversity" (Frison, 2016).

Industrial food systems

Our working definition is represented in the IPES-Food report "From Uniformity to Diversity" (Table 1) "refers to modes of farming that are analogous to industrial processes in their scale and task segregation, and seek to derive productivity gains from specialization and intensification of production" (Frison, 2016, p. 11). Green Revolution efforts in India, Mexico, and now Africa are extension of food systems industrialization, and the increasing specialization across industrial food systems amplifies reliance on an ever-smaller number of players (Shiva, 2016; Clapp & Isakson, 2018).

Agroecological food systems

Our working definition is represented in the IPES-Food report "From Uniformity to Diversity" (Table 1) in which Gliessman defines agroecology as "the science of applying ecological concepts and principles to the design and management of sustainable food systems" (Gliessman, 2015, p. 345). Further, Agroecology "encompasses various approaches to maximise biodiversity and stimulate interactions between different plants and species, as part of holistic strategies to build long-term fertility, healthy agro-ecosystems and secure livelihoods. It also represents a social movement; this usage will be specified where relevant" (Frison, 2016, p. 11).

Indigenous food systems

We are reticent to offer a universal definition for "Indigenous food systems," as the diverse First Nations, Inuit, and Métis communities whose economic systems predate European contact have cultural and place-based approaches that defy tidy labels. Generally, such systems share in common a challenge to "the limitations of the linear production paradigm that has mechanized the spirit and soul out of the land and food system as a whole" (Morrison, 2020, p 19). The Pan-Canadian Indigenous Food Systems Network describes food systems as the "vast myriad of rivers, watersheds, land-forms, vegetation and climatic zones [that] have worked together for thousands of years to shape and form Indigenous land and food systems. Consisting of a multitude of natural communities, Indigenous food systems include all of the land, air, water, soil and culturally important plant, animal, and fungi species that have sustained Indigenous peoples over thousands of years" (Levkoe et al., 2019, p 102).

Food sovereignty

Our approach to food sovereignty is guided by Via Campesina's Food Sovereignty Declaration at the 1996 World Food Summit -- an alternative vision to the neoliberalization that underscores

industrial food systems (Val et al., 2019). Further, our approach is informed by our work with Indigenous communities and decades of Indigenous scholarship that connects "food sovereignty" with land and lifeways. It is impossible to be 'sovereign' in regards to one's food if one lacks the sufficient land base to support a food system (Martens et al., 2016; King et al., 2019). Wittman et al. (2010) reference the 2007 international gathering in Mali, where "a vision of food sovereignty" was put forwarded and adopted "that sees food as being integral to local cultures, closes the gap between production and consumption, is based on local knowledge and seeks to democratize the food system." (Wittman et al., 2__:7). Canada's food systems movements embraced a food sovereignty approach when undertaking the People's Food Policy Project (PFPP). A comprehensive, crowd-sourced document involving communities from coast to coast to coast, the PFPP articulated food sovereignty-informed social and ecological contexts for policy makers (Levkoe et al., 2019).

Canada's food policy context

Since the onset of the 2020 COVID-19 pandemic, vulnerabilities in the "just-in-time food system" became visible to Canadians in a way it has long been visible to those who study food systems. The disruption to just-in-time food systems caused by the pandemic revealed untenable trade-offs the commodity production sector previously hid from the average consumer. Canadians were shocked by news coverage of farmers dumping milk, and produce rotting in fields as a result of labour and market disruption in early spring 2020. In what we call Canada today, there are roughly 15,000 major grocery chain outlets and over 60,000 charitable organizations that support people with food. That's four food charities providing food for Canadians who cannot afford to eat for every one major grocery chain store selling food (Nikkel et al., 2021). For Indigenous peoples, food insecurity is experienced at a rate that outpaces non-Indigenous peoples with one in five Indigenous peoples off-reserve experiencing food insecurity before the pandemic hit Canada (Levkoe et al., 2019, p. 106).

Coupled with ongoing impacts to global food systems from catastrophic fire, flooding, infestations, drought, and disease intensity and frequency connected to climate breakdown, (UNCTAD, 2013; Frison, 2016; Noiret, 2016) the notion that business as usual can continue has been dealt a significant blow. Canada's lack of a comprehensive food policy has been a focus of civil society organizations for more than two decades, as an effort to deal with Canada's policy in a "joined-up" manner.

Launching a nationwide campaign to "join up" policies to create sustaining food systems, the Peoples' Food Policy Project (2008–2001) was a Pan-Canadian initiative mobilizing over 3,500 people through a grassroots initiative resulting in a national food sovereignty platform (Levkoe & Sheedy, 2019). This civil society effort played a role in Canada adopting a National Food Policy in 2019, which seeks to assure that "All people in Canada are able to access a sufficient amount of safe, nutritious, and culturally diverse food" and that "Canada's food system is

resilient and innovative, sustains our environment and supports our economy" (Government of Canada, 2019 p. 5). The emphasis in the funding for the first five years is on "market-based" solutions over social and ecological dimensions of food systems. A little more than 10 percent of that budget—$15M—was allocated for Northern Communities Fund to combat challenges accessing healthy options in the north. Canada's 2019 Food Policy prioritizes "Strong Indigenous Food Systems" —providing a framework for Indigenous-led advocacy and articulation of what strong Indigenous food systems entail in relation to various First Nations, Inuit, and Métis governance approaches.

With these assumptions and understandings, we turn our attention to the content of our research, beginning with a short overview of the frameworks we applied in our analyses of the Anishnaabek and Nutrition North case studies, followed by a discussion of a normative shift from food commodity to food commons in the settler colonial context.

Frameworks: critical food guidance

Food guidance informs policy, priorities, and regulations that impact public health, ecological health, and the economy. Conventional food guidance in Canada in the latter half of the twentieth century defines key food groups by nutrient category corresponding to Canada's commodity groupings, from which dietary recommendations arise (Institute of Medicine, 2003). This approach encourages personal responsibility for health, like choosing fruit over candy bars, while avoiding collective responsibility—like asking why candy bars are sold at schools, who is selling those candies and what are the consequences of those candies to public health. Hidden within this conventional approach are assumptions about the role of individuals, communities, markets, and states in shaping our food choices.

Critical food guidance, on the other hand, provides a framework for dynamic, responsive approaches to food policy, rather than relying on fixed standards and current practice alone for guidance. Koç et al. (2017) maintain that being "critical" in social science has four components or pillars: 1) examining evidence; 2) unearthing values; 3) questioning power; and 4) encouraging social change. With this in mind, Critical food guidance is "a multifaceted approach to food buying, growing, and harvesting" aiming "to link food sustainably with the environment, the economy, society, culture and governance" noting that as "food interacts with all of these aspects of life, it is crucial to recognize and work to improve them" (Sumner & Desjardin, 2021 p. 4). This approach seeks to consider the collective decisions, policies, and institutions in determining food "choice."

In the conventional approach to food guidance, food remains a commodity. Food systems researchers have established that relying on industrial approaches to food systems is an inherently unsustainable approach (Frison, 2016; UNCTAD, 2013; Clapp & Isakson, 2018). For example, reducing the climate implications of food production systems is a central challenge for Canada. Food systems industrialization is a leading cause of climate change, with the global rise

in consumption of animal products over the past century considered a key driver (Lappe, 2021; Weis, 2013; Rockström et al., 2009). Livestock production alone accounts for some 18 percent of greenhouse gases (GHG) output, thus reducing the amount of meat and livestock products consumed globally would have an immediate and measurable impact on GHG release (UNCTAD, 2013; FAO, 2009; Weis, 2013). Canadians waste 11 million metric tonnes of food annually at a cost of $50 billion. (Government of Canada, 2019).

Since the early decades of the twenty first-century, Canada's approach to food guidance has improved starkly. Sumner and Desjardin (2021) point out the new Canada Food Guide follows recent health and environmental evidence, replacing the meat, grain, and dairy-heavy Food Pyramid with a plate filled mostly with plant-based foods. While a significant improvement in food guidance, this approach negates the cultural and geographically-dependent, meat-based diets of many First Nations peoples (Sumner & Desjardin, 2021) that a critical food guidance approach offers. Critical food guidance considers evidence from social scientists, community food security activists, farmers, nutritionists, consumers, Indigenous communities, and other perspectives. It is in this context that we explore normative shifts for articulating and creating a food system decoupled from commodity valuation and the socio-ecological crises to which the commodity food system is a major contributor (Weis, 2013; Holt-Gimenez, 2017; UNCTAD, 2013; Frison, 2016).

Frameworks: Food as a commons

Commons research—an emergent field that crosses disciplinary boundaries—builds on the late economist Elinor Ostrom's (1999) work, which positions commons as resources held by an identifiable community of interdependent users. These users exclude outsiders, while regulating use by members of the local community through institutional arrangements supported by collective action (Ostrom, 1999). Rivalry (competition for use) and excludability (prohibition of access) are the two features used by economists to define private/public/common goods. Neoclassical economists, including Ostrom, considered those properties as ontological (i.e., inherent to the goods); thus, they defined goods as being private, public, or commons. The consideration of food as inherently a private good by nature helped configure a for-profit market for food items, particularly during the second half of the twentieth century (Pettenati et al., 2019). However, considering goods as private, public or commons is arguably a social construct and not an ontological property of the goods themselves. With this understanding, it follows that societies can mould those goods according to prevalent values, existing technologies, current availability, and number of users.

In practice, commons can go beyond material goods to include territories, life support systems, governing arrangements, and immaterial knowledge upon which local communities rely to meet social, cultural, and economic needs and identities (Vivero Pol, 2017a). Commons can be characterized by their "commoning" practices and not by the properties of the goods (Dardot &

Laval, 2014). Indeed, collective governance and common property regimes have a long history of being efficient systems for managing shared natural resources. Despite centuries of liberalization, enclosure, and misappropriation, over twelve million hectares of commons lands still remain in Europe (European Commons Assembly, 2016).

The current industrial way of producing, transforming, transporting, and consuming food, with its multiple unaccounted externalities (e.g., ill health, reduced biodiversity, climate impact), is the major driver of planetary transformation (Rockström et al., 2016). It already pushes four planetary boundaries beyond their safety thresholds—climate change, loss of biosphere integrity, land-system change, and altered biogeochemical cycles (Steffen et al., 2015). A normative shift in how we value food may function as a precursor to both implement meaningful policies that institutionalize multifunctionality over uniformity, and legitimize multiple understandings of ecosystems other than as "natural capital."

The dominant economic discourse reduces food to a commodity based on rivalry and excludability, which conventional economists insist is best managed by markets, absolute proprietary rights, purchasing power, and privatization. Yet food has been produced and distributed through non-market mechanisms for millennia. Being traded is not the same as being commodified. All commodities are traded but not all traded goods are commodities. A commodity is a special kind of good or service associated with capitalist modes of production (Radin, 1996) where its exchangeability for some other thing is the only socially relevant dimension (Appadurai, 2005). Commodification is therefore the outcome of food systems under capitalism—an economy predicated on the fallacy of endless growth (Holt-Giménez, 2017).

Understanding food as a commons raises fundamental questions about the currently dominant mode of exchange, namely, food as a commodity. Indeed, Karatani (2014) contextualizes private property and market economies as just one of four typologies of modes of exchange, building on the tradition of Polanyi (1957) and others. The first typology Karatani offers is reciprocity of the gift, where groups were either pooling resources (e.g., nomadic peoples) or establishing gift exchange mechanisms (e.g., agrarian/ semi-agrarian peoples). The second is rule and protection, where first feudal lords and then the state exchanged protection and governance for goods produced by commoners. The third typology is commodity exchange, whereby money is traded for a given commodity according to market rules. The final typology Karatani characterizes is post-capitalist value regimes that can utilize technological opportunities to revive reciprocity practices enabled by web-based platforms and self-regulated local collective actions (Karatani, 2014). In that sense, commoning can be seen as a form of reciprocity that brings together people's labour to collectively own and govern a good or resource. This collective action can take various forms, including owning and governing food as a commons, which is a direct challenge to its increasingly commodified form (Martorell & Andrée, 2019). It would create alternative spaces for action and legitimize alternative forms of governance and distribution of food that are not exclusively based on commodification or commerce.

Historically, common lands were pivotal in underpinning food as a commons by developing small farming agriculture since the Middle Ages across what is known today as Europe.

Common lands are still important to produce seafood, and as water catchments, carbon sinks, or priority areas for conservation (Vivero Pol, 2017b). La Mela (2014) notes that Scandinavian countries recognize foraging rights for mushrooms and berries for every citizen, while in Portugal *Baldios* are legally recognized collective arrangements to govern certain forested areas in which foods are harvested. America, Brazil, Honduras, Venezuela, and Nicaragua formally recognize the communal rights of Indigenous communities to traditional territories, which again impacts Indigenous food systems (Robson & Lichtenstein, 2013). In Asia, over 10,000 villages in Vietnam collectively manage over two million hectares of traditional community forests (Marschke at al., 2012). Food as a commons also includes knowledge such as medicinal uses of blueberry leaves, or how to sustainably harvest, clean, and prepare a lake trout. In fact, knowledge held in food commons is often represented in language, culture, art, ceremony, and traditional practices related to food, cooking or cultural traditions.

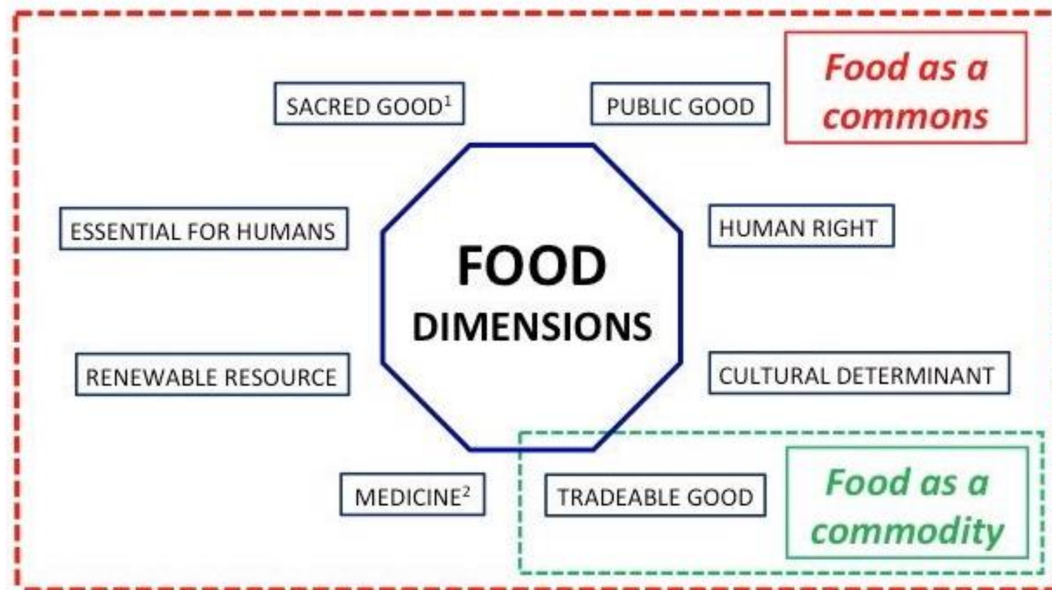
Food dimensions framework: The theoretical basis for food as a commons

The theoretical aspect of the normative shift towards food as a commons is based on the Food Dimensions Framework (Vivero Pol, 2017a). This framework began with six dimensions with which all food is endowed: an essential resource for humans, a human right, a cultural determinant, a natural resource, a public good, and a tradable good. Only the latter can be valued in monetary terms, but dominates over the others in the contemporary industrial food system. Since the framework was initially proposed, food as medicine (Tirado-von der Pahlen, 2019) and food as sacred (the authors) were added. Figure 1 illustrates these eight food dimensions, showing the commodity valuation contextualized within a commons governance structure, alongside non-economic values. When engaging this term, sacred, we add a cautionary note to warn against "new age" interpretations of this cultural concept. For Levkoe et al. (2017), whose research on food systems score cards recommends recognizing food as sacred, "this principle speaks to recognizing that food is a gift of life and should not be squandered. It asserts that food cannot be commodified" (p. 74).

The holistic valuation of all eight dimensions opens up consideration of food as a commons, opposing its current designation as a commodity whereby only the tradeable dimension is valued. It is this expanded dimensionality that can serve as a form of food guidance for those who are inspired to act, advocate for, and build awareness about systemic shifts toward food as commons. Respectful and relationship oriented participatory action research is required to conceptualize "sacred" meaningfully as it relates to the multidimensionality of food itself and the importance of food (plant- or animal-based) to both Indigenous and non-Indigenous food systems. An entry point for Western readers reflecting on food as sacred includes the recognition of that dimension in the Christian eucharist, namely the sacredness of Jesus Christ's blood and body represented by wine and bread, which would not be commodified as such. Another key example comes from the Dené belief in the sacredness of the caribou. Respect for the caribou when killed for food—also

ensuring that the caribou will then "allow" themselves to remain as a food source—includes sharing all parts of the animal with the entire community as a commons (Walsh, 2015).

Figure 1: Multidimensional food values: Eight food dimensions



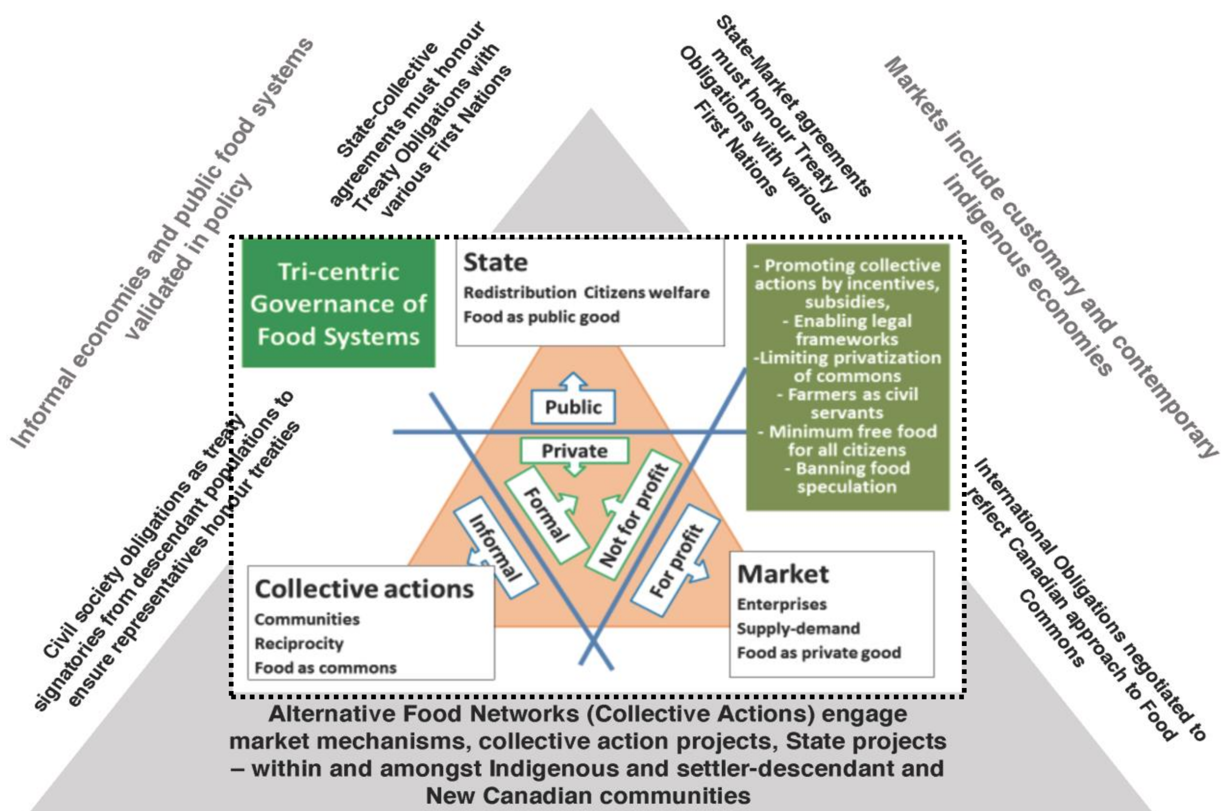
(Source: Vivero Pol, 2017a; Tirado-von der Pahlen, 2019)

The dominant narrative in the industrial food system focusses on monetized food values exclusively, and values that cannot be monetized become secondary or neglected. This explains, for example, why ecosystem services have to be valued in monetary terms, transforming into dollars the value of bee pollination. Yet, the multidimensional valuation of food is not a new narrative. It has been the "normal" narrative since human beings were organized in hunter-gatherer groups (Shepperson, 2017; Pettenati et al., 2019). Moreover, the value-based narrative of food as a commons can fit with current, and growing, alternatives to the dominant industrial food system, such as food democracy, food councils, community-supported agriculture, food justice, or food sovereignty. Radical reorientations of worldviews are necessary to bring about fundamental change in food systems, and Koç et al. (2017) identify "encouraging social change" as the fourth component of critical food guidance. Therefore, this paper proposes to reconceptualize food as a commons and to reorientate governance structures (e.g., policies, legal frameworks, financial incentives, prohibitions) to produce, transform and distribute food differently, so as to ensure healthy food is accessible to all, preserve food-producing resources and maintain human societies within Earth´s limits.

Transition pathways to food as a commons: The tricentric governance model

How can this narrative be practically operationalized? Vivero Pol (2017a) proposes a transition pathway towards food as a commons, adapted here to reflect the Canadian context (Figure 2). In this model, three realms of governance—the state, collective actions, and the market—form a collaboration. State actions are redistributive, policy enabling, and limiting on privatization. Collective actions refer to the various engagements of citizens as common property rights holders with their food system. Markets in this governance model lose the capacity to speculate on food (i.e., by banning speculation)—capacities that are relatively recent in the realm of finance but are creating new monopolies of capital that wield immense power over food systems (Clapp & Isakson, 2018).

Figure 2: Scheme of a tri-centric governance model: a settler colonial context



(Source: Vivero Pol, 2017a; the authors).

The original model exists within the dotted lined box. The authors have offered some considerations for Canada's settler colonial context. In this model, the state assumes a redistributive function and may work with both public employees and private enterprises to provide food as a public good to all citizens, fulfilling its role as guarantor of food as a human

right. The state also has a role in creating enabling legislation, redirecting subsidies to stimulate development in target areas (e.g., agroecology, small-scale farming) as well as regulating/preventing new privatizations of food-producing commons (e.g., land, water, seeds, traditional agricultural knowledge). Additionally, the state can lead the re-commoning of previously privatized/commodified resources, either material (e.g., fish stocks, hunting territories, water sources) or non-material (e.g., genetic resources, traditional medical practices, First Nation images). Preliminary modifications added to the source model to consider Indigenous food systems, existing Treaty obligations and the impact of food governance amongst settler populations on those Treaties, and a Nation to Nation (rather than subjugation of Indigenous peoples to Canadian governance) approach built into settler governments' new mechanisms for food governance. This tri-governance model presents one heuristic technique for possible approaches to implementation, yet we have examples of both customary and contemporary food commons in Canada from which we can also gain insights for a food system that moves beyond commercial values.

Food as a commons in Canada: Customary and contemporary systems

Commons are still poorly understood in Canada where the dominant economic view reflects the fact that private property rights are the basis of the legal system. The primacy of absolute private property today renders notions of common property an antiquated, pre-industrial form of governance. Yet examples of commons in daily Canadian life abound, including libraries, open-source software, municipal squares, and parks, recipes, and schools—resources shared by citizens and collectively managed in some manner for their benefit. Commons are predominantly expressed as collective proprietary regimes, but can also include collective governance mechanisms or peer-to-peer production of any given good. This broadened expression allows food commons to find commonalities with aspects of various Aboriginal peoples' food traditions, governance structures, and agro-ecological practices rooted in well-informed customary traditions, such as the Potlatch system of the Pacific Northwestern Indigenous peoples, and the Moose Hunt gifting system of the Anishnaabek (LeBlanc, 2014).

An investigation into customary and contemporary food commons in Canada is rooted in the context of Canada's relationships with Indigenous Nations in historical times and nowadays. The Canadian context is complicated by murky legal foundations for nationhood and a Treaty-making legacy from the British Empire (McFarlane & Schabus, 2017). Indigenous peoples entered into Treaty-making processes with the British Crown, which explains why there are numbered Treaties covering different physical territories. Canada did not have its own Constitution until 1982, and as a successor state to the British Crown, Canada has a duty to implement the various Treaties as originally negotiated in good faith (Makokis, 2013; McIvor, 2021), and to continue to engage in Treaty making with Indigenous Nations in unceded territories as a prerequisite for the Crown's subjects to access Indigenous lands (Venne, 2017).

Friendship Treaties signed by the British Crown and Indigenous peoples cannot be understood simply as surrender of land for purchase, and actually the Indigenous people still retain certain rights and entitlements over the territories governed by the treaties. These were built on the recognition of inherent rights of the original inhabitants and were meant to provide benefits in exchange for access to Indigenous territories (Makokis, 2013). Two of the case studies in this paper involve First Nations with whom the British Crown entered into treaties and whom maintain Aboriginal title, rights, and treaty rights.

Through colonization, the diets of Aboriginal peoples in Canada have undergone a significant transition from local foods to processed foods (Pelto & Pelto, 1983), facilitated by various factors including physical estrangement from the land, practices, and knowledge (Vecsey, 1987), assimilative pressures to change existing social, economic and food systems (Mihesuah, 2003), and contamination of the natural environments that support local food systems (Rosenberg et al., 1997; Willows, 2005).

The current food systems of northern Aboriginal peoples are characterized by a mixed diet of harvested food from the land and imported food sold in stores, posing unique considerations for understanding food security and health (Galloway, 2017). Food insecurity is rampant, with dietary disease such as diabetes and various inflammatory conditions at epidemic levels on reserves the result of poor access to both "health" options at stores and disruption of traditional harvesting and cultivation economies (DeSchutter, 2013). However, a resurgence in traditional food systems among Indigenous peoples heralds a return to healthier diets and establishes a set of commonalities for understanding food as a commons.

Traditional food systems in Northern Ontario

Food production by farming, hunting and gathering, fishing, and trapping was the basis of traditional food systems for millennia (Kuhnlein et al., 2001; Willows, 2005). A variety of forest and freshwater foods—including fish, deer, caribou, moose, rabbit, bear, beaver, partridge, goose, cattail roots, berries, seeds, rose hips, edible flowers, and teas—are the foundation of a traditional diet, one based on seasonal and regional availability of these and other edible plants and animals (Ontario Nature, 2014). The contemporary importance of traditional food goes beyond nutrition as Aboriginal peoples see it, as food is an important indicator of cultural expression and has great sociological meaning (Kuhnlein et al., 2001; Willows, 2005). Many Indigenous peoples view food and medicines as one and the same. Traditional foods—also called country foods by the Anishnaabek (LeBlanc, 2014)—are key drivers in the reduction and mitigation of diet-related non-communicable diseases experienced in some communities as epidemics, including diabetes, cardiovascular disease, and obesity. This food-as-medicine dimension has recently been proposed to further enrich the food commons framework (Tirado-von der Pahlen, 2019).

Quantitative valuations of the forest and freshwater food contributions in northern Ontario are sparse, although in the Ojibway community of Webequie, local fish contributed approximately half a pound of meat per person per day (Hopper & Power. 1991), and for the Omushkego Cree, local meats contributed a monetary value of $7.8 million, equal to one-third of their annual economy (Berkes et al., 1994). The perception held among Aboriginal people that their traditional forest and fresh water foods hold high health values has been well documented (LeBlanc, 2014; Gittelsohn et al., 1996; McGregor, 2013). Many Indigenous peoples also believe that the restoration of traditional subsistence foods and practices is essential to community vitality (Conti, 2006; Diabo, 2018). For them, the concept of health reflects a state of connectedness with spirit, culture, community, land, family and within the individual self (Ray, 2017). These realities must inform critical food guidance when developing policies that impact Indigenous peoples.

Case studies of Indigenous food commons

This section presents three case studies that help to explain Indigenous food commons. The first two cases present aspects of Indigenous food commons, while the third is a counter-case that highlights the problems associated with valuing food as a commodity, rather than valuing food as a commons.

TEK Elders Group: belonging to, using, and stewarding the commons

The TEK Elders Group case study is informed by a series of interviews and public appearances with three Anishnaabek Elders from the Robinson Huron Treaty territories—Ray Owl, Willie Pine, and Art Petahtegoose—and Sue Chiblow in her volunteer role as the TEK Elders Group coordinator. This case study is informed by interviews, discussions, and speeches recorded during public events, including: public protests held in October 2016 (Ottawa), May 2017 and April 2018 (Toronto); meetings in June 2017 and August 2018 with TEK Elders Group; an open-ended interview with Ray Owl and Sue Chiblow in November 2018 at the Parliament of World Religions; and reporting by Dorothy Schrieber of AnishnabekNews.ca between 2015 and 2018.

Anishnaabek territories are located above and around the Great Lakes, spanning three provinces and six states. The Anishnaabek are the second largest Indigenous cultural and language group in North America. The Traditional Ecological Knowledge (TEK) Elders Group of the North Shore of Lake Huron was formed in 2014 to end aerial herbicide use in the Robinson Huron Treaty territories. At the TEK Elders Group meeting with RHW on August 3, 2021, lawyer and friend of the TEK Elders group Stephen O’Neill reminded attendees of the winter of 2017 Chiefs Resolution initiated by TEK Elders Group founders Ray Owl and Willie Pine calling for a Moratorium on Spraying. In that unpublished document, the majority of Band

Councils acknowledged the TEK Elders' leadership on environmental governance within the 1850 Robinson-Huron Treaty Territory (TEK Elders, 2021).

The Elders are holders of Indigenous scientific knowledge, which focusses on place-based ecological relationships. Anishnaabek clans are connected to specific animals or totems. The totem system weaves two concepts, *enawendiwin* (strands connecting all parts of creation) and *waawiyeyaag* (interwoven systems of circularity) together to articulate the interconnected ways in which circles of Anishnaabek relationality operate. These strands come together to form a law known as *nindinawemaganidog* (all of my relations), commanding Anishnaabek to consider the web of life (Sinclair, 2013). As woodland peoples, Anishnaabek are dependent socially, economically, spiritually, and culturally on the health of the forest, including the health of the wildlife, plants, water, and the soil. The Elders speak of Treaty rights recognized and affirmed in section 35(1) of the Constitution Act, 1982, which acknowledge the Anishnaabek of the territories as the caretakers of the lands and waters: "These were given to us by the Creator so that we may continue to live as Anishnaabek people for generations to come. We have never relinquished these sacred responsibilities" (Pine, 2018).

Conservation of ecological values in western science is "point-focussed," aimed at surveying land to exploit resources, according to Art Petahtegoose, former Chief and a TEK Group Elder from White Fish Lake First Nation (Petahtegoose, 2018). Environmental assessments include statistical data and cultural relevancy on specific "values" or points of cultural significance such as nests of a particular bird, or traditional trap lines. This point-focussed approach objectifies lifeforms, obscuring Anishnaabek presence in their own home. In contrast to this, as Petahtegoose illustrated during a meeting with the forestry company EACOM, "when we put the Anishnaabek name on a water body, we say there is a life there, an ecology that has to remain intact" (Petahtegoose, 2018). Anishnaabek food systems invoke responsibility towards both previous generations' efforts and towards future generations' needs, including non-humans.

In that sense, the stewardship of natural resources is intergenerational. Anishnaabek knowledge includes institutions such as the clan system, which identifies kin groups with non-human family members to maintain ecosystem integrity and encodes understanding of socio-ecological sustainability. "Users" of the food commons include all living beings within the ecosystem, not only the human ones. Thus, one can see how the Anishnaabek do not hold an individual property consideration on food-producing natural resources, all of them endowed with non-economic attributes and spiritual values that evidently escape from economic valuations in monetary terms.

TEK Elders have been pursuing legal arguments that are supported by an active court case regarding the Annuities clause in the Robinson Huron Treaty. Since December 2018, courts have upheld the Anishnaabek Nations' interpretations of the Treaty, which according to Giima Dean Sayers (Batchewana FN), includes the argument that Anishnaabek never ceded jurisdiction over land and water stewardship (Petahtegoose, 2018; Jones, 2018; Sayers, 2021). Food economies are connected to the land for the TEK Elders, and decisions that have impacted forest health and river systems have dramatically reduced the presence of deer, berries, fish, clams, medicines, and

other cultural dietary staples. The process of taking only enough and leaving all that can be left for others and for future generations is a food way that arises from the Seven Grandmother/ Grandfather Teachings, or Seven Sacred Teachings (Chiblow, 2020), which act as guidance for living a good life (Sayers, 2021; Borrows, 2019; Pine, 2018).

Aroland Youth Blueberry Initiative: A commons approach based on cultural worldviews

The Aroland Youth Blueberry Initiative case study is a result of participatory action research undertaken by co-author Joseph LeBlanc in 2014 with community members/ researchers Mark Bell and Sheldon Atlookan to describe the impacts of Ontario's natural resource management regime on the accessibility and availability of forest and freshwater foods by the Aroland First Nation members. Rather than engage community members as 'participants' or 'key informants,' a participatory action research methodology and Indigenous research framework were employed to integrate Indigenous knowledge systems (LeBlanc, 2014; Martens et al., 2016). The Aroland Youth Blueberry Initiative was created in the summer of 2008 by five key actors as a result of a larger community-university relationship in which community members generated their research priorities and questions in collaboration with Lakehead university partners. The research group then undertook actions in four focus areas, one of which was non-timber forest product marketing. Key participants included community members, as well as Aroland First Nation staff and leadership along with staff, graduate students, and faculty members associated with Lakehead University's Food Security Research Network.

As an example of critical food guidance, this case study explores the relationship between food-as-commons leanings of Indigenous food systems and the food-as-commodity approach of the dominant industrial food economy. The community of Aroland First Nation is located in the boreal forest region of northern Ontario. The people are the descendants of signatories to Treaty #9—known today as the Nishnawbe Aski Nation (NAN). Reserve lands encompass 19,599 hectares and extend northwards from Highway 643 to land along the western and northern shores of Esnagami Lake—a territory overlapping two-thirds of the province in Ontario (Aroland First Nation, 2022, para. 4).

The Aroland Youth Blueberry Project is a community-driven initiative, with local knowledge and youth involvement as main pillars. Launched in 2006 with $1500 in self-funding by community members and countless volunteer hours, the venture became profitable and financially viable within a few months. This initiative aims to build leadership and social entrepreneurial skills in the community's youth, seeking actions that are emergent from the Indigenous worldview. Undertaken through collective actions, this initiative relies on members sharing opportunities with each other, respecting the labour and knowledge of pickers through engagement as equals and demonstrating reciprocity to buyers and workers through fair prices.

The initiative seeks to provide real-world experiential learning opportunities. Members learn and teach practical skills that support life in their places, and they seek advice from local knowledge holders. On the day prior to setting up the buying depot, "contracts" are issued to interested community members who will pick the berries. After being bought from pickers, the berries are marketed throughout the region of northern Ontario. As the Anishnaabek participants in the research say, "we honour our responsibility to all creation by not taking more than we need" (LeBlanc, 2014, p. 139). As a result of this cultural teaching, the members grapple with whether it is acceptable to harvest food for sale and if harvesting food beyond personal consumption constitutes taking more than one's needs.

In the past, the community generated livelihood through participation in the traditional economy. Community and family bonds were stronger and reciprocal, and goals such as profit maximisation and individual competition were not found. The Elders emphasized conviviality in their speeches, citing the role of families in primary production and interactions with each other and neighbouring communities to trade food, goods, fuel, and knowledge. These exchanges were steeped in respect, reciprocity, and the expectation of mutual responsibility (LeBlanc, 2014). This behaviour has been amply documented by many researchers, with two classical works explaining in detail this type of moral economy that was prevalent in human history for centuries: the gift economy and reciprocity (Mauss, 1970; Sahlins, 1972).

This project is an example of a mixed-economy approach, blending customary food commons (the blueberries growing on collectively held lands and harvested collectively) and contemporary food commons (the business linked to outside markets in Thunder Bay). In 2012, the project brought an estimated $30,000 to $50,000 into the local economy. The greatest barrier to success for this initiative is transportation. A return trip between Aroland and markets in Thunder Bay is more than eight hours (Stolz et al., 2017). Another issue the youth face is the aerial spraying of glyphosate-based herbicides across the northern Great Lakes' forests and the impact on blueberry production (Pine, 2018).

Informing the cooperative actions with an Indigenous worldview has created unique opportunities on shared lands and reinvigorated food commons approaches within the territories. And while poverty, disenfranchisement, and interpersonal health issues—legacies of Canada's defaulting on treaty obligations and the residential school system—continue to impact Aroland youth, this project sets a template for further opportunities to develop commons regimes in the territories, with similar benefits.

Nutrition North Canada: a counter-case that obscures non-Western valuations

The Nutrition North Canada case study is informed by research resulting from a comprehensive five-year program review to provide critical guidance (Galloway, 2017), including an example of how valuing food strictly as a commodity is impacting the effectiveness of Indigenous food security policies. As part of his work with the Sudbury Social Policy Council, co-author Joseph

LeBlanc engaged in project development aimed to improve the health and self-sufficiency of aboriginal communities. Within this initiative, the government was prepared to give training money to one farmer who would make a business to sell to ten people, but not to ten people whose aim was food self-sufficiency and reciprocity. The market-oriented policy priorities were clear in this example. Similar problems were encountered when LeBlanc attempted to develop a program to involve First Nations engaged in the moose hunt in the Nutrition North Canada program, learning first-hand the impacts of imposing "food-as-commodity" solutions. The Nutrition North Canada case study illustrates the disconnect between the top-down imposition of a commoditized food narrative (an ideological construct) and the resistance to this narrative by those who are supposed to benefit from the governmental support at the bottom.

Launched in April 2011, Nutrition North Canada (NNC) is a governmental program designed to address food insecurity in northern communities that works with, and subsidises, registered retailers and suppliers across the North (Galloway, 2017). NNC airships food items, from industrial food system staples like fruits, vegetables, milk products, eggs, and meat to "country food" staples like Arctic char, caribou, and muskox. Indigenous and Northern Affairs Canada is charged with monitoring compliance to ensure savings are passed on to northern residents. The program budget is $60 million a year with new funds in 2016 to extend the number of communities participating, and adding a healthy eating education component for an additional $4.7 million annually. In 2020, an additional $25M for Nutrition North as a COVID-19 response (Cooper, 2020).

Galloway (2017) enumerated several shortcomings in the program prior to 2016 that allowed retailers to maximize profits at the expense of community wellbeing. The review revealed gaps in food cost reporting and lack of price caps and other means of ensuring program targets were met. These gaps may have been avoided if multidimensional food values were taken into account (see Figure 1). Galloway's research confirmed the critique held within Indigenous communities that NNC made no provision for country food to be sourced locally using traditional methods of harvesting and processing foods. In that sense, NNC approached the food security issues faced by northern Aboriginal peoples through market mechanisms exclusively, using a food-as-commodity worldview. This lack of recognition of the multidimensionality of food misses the opportunity to enhance community self-sufficiency through customary food economies. The program as of 2021 continues its focus on direct subsidy for a handful of retailers to lower prices and make southern-sourced foods more affordable to First Nations and Inuit communities in what is broadly termed "the North". As the program under the Liberal government still fails to cover costs of hunting or fishing gear, bottled water, or locally provided culturally appropriate foods, the program is even more problematic for Inuit peoples (Cooper, 2020) whose colonization has only occurred in the last seventy years (Qaqqaq, 2021).

This market-based model works on the basis of unaccountable competition between a few corporations that are heavily subsidized with public funds. Additionally, subsidy claims are outsourced for processing, leaving the Northern (and local) public little oversight of the claims process. Moreover, retail consolidation in the North affects what is available where, and with the

NNC failing to set price caps on subsidized items, the main beneficiaries of the program seem to be the retailers. Lack of competition is so profound that one entity, the North West Company, received half of all NNC subsidies, amounting to $32.8 million in 2014 to 2015 alone (Galloway, 2017). Galloway's report and the ongoing attestations of those relying on NNC arrive at similar conclusions: engendering sustainable improvements to food security in target communities requires consideration of alternative forms of policy. And yet, those alternative policies cannot be expected to produce a new result while food continues to be framed as a pure commodity to be distributed through market mechanisms.

The Liberal government that defeated Harper in 2015 has to date maintained NNC's market-based solutions approach, which only further entrenches an exploitative market relationship that corporations have in Northern communities (Cooper, 2020). In this way, the current Canada Food Policy approach reinforces the existing food system as if it were the only food system. When taken in context of other policy areas, Canada's material and legislative support for development projects that undermine land-based food self-sufficiency and Indigenous food systems appears to conflict with the Canada Food Policy (Government of Canada, 2019) goal of strengthening Indigenous food systems. During the COVID pandemic in 2020, Trudeau's Liberal government invested an additional $25 Million to address rising food crises amongst Indigenous communities as the pandemic continued. Rather than supporting mutual aid networks on the ground, the bulk of these additional funds are being applied to Nutrition North and other direct-to-business subsidies.

Critical food guidance in the case of Nutrition North draws attention to a gap in fiduciary duty to guarantee that food has the same legal protection and universal access as health or education for Treaty people and for those identifying as Canadian within the Canadian state. First Nations, Métis, and Inuit communities experiencing food insecurity find in Nutrition North a subsidy for further imposition of settler colonial food systems. At the same time, federal programs and Ministries oversee destruction of the very habitat the Indigenous food systems rely upon for providing adequate and appropriate levels of food security. Advocates argue there are missed opportunities to have invested pandemic-related funds to address rising food costs with programs that could support and enhance food sovereignty rather than further dependence on grocers.

Discussion

The theoretical and practical framework of food as a commons offers critical food guidance for addressing multiple socio-ecological issues connected with food systems. Following this guidance framework involves adopting the eight food dimensions (Figure 1) as a policy lens at various levels of decision making—from household choices through to the emerging National Food Policy in Canada (Government of Canada, 2019). In relation to the case studies, we see that Anishnaabek food systems share values identified in the multidimensional food values

framework (Figure 1). Scholars have echoed the participants in these case studies in describing food as sacred (Levkoe et al., 2019; Bartlett et al., 2012; Pine, 2018), while food as a cultural determinant is expressed in the gifting relationship some Indigenous societies have with food (Setee & Shukla, 2020). Within Figure 1, we find Food as cultural determinant, as seen in the role food gift-giving plays in governance and the role various staple foods play in various societies. We find Food as a renewable resource, as sacred, and as medicine—all dimensions of food value expressed by Indigenous peoples across all three case studies. (Setee & Shukla, 2020).

Adopting a tri-governance model (Figure 2) in resource development initiatives that prioritizes industrial food systems over short-term resource exploitation could strengthen Canada's Nation-to-Nation relationships with Indigenous peoples. These shifts could correct the disconnection of treaty rights from food security in policy—a connection that is evident in the pre-Confederation treaties (Venne, 2017; Sayers, 2021; Borrows, 2019). Application of these two frameworks within the "Canadian" context must consider implications for honouring agreements (or lack of such agreements) between the Government of Canada as the body accepting the Crown's duties, and the various First Nations, Inuit, and Métis Nations with whom the Crown has sought to Treaty.

For the Aroland Cooperative and the TEK Elders case studies in particular, applying what Melanie Goodchild calls Anishnaabek Gikendaasowin (knowledge) and governance could expand the utility of the model in both rural and urban food systems contexts by introducing an expanded conceptualization of "what" is being governed and for "whom" (McGregor, 2013; Whyte, 2021). Further inquiry designed and led by Indigenous researchers and knowledge keepers is informing the development of this tri-governance model (Figure 2) in the context of the 1850 Robinson Huron Treaty (Robinson Huron Waawiindaamaagewin 2020). The authors of this work are cautiously optimistic about the potential for Canada's National Food Policy legislation to create points of access for the normative shift the authors identify in this paper, particularly through the Food Policy Advisory, for approaching food as a commons within the context of Indigenous-Canada relations.

Indigenous food systems advocates are not waiting on theoretical consensus before engaging in the spaces of nuance where industrial and Indigenous food systems currently intersect. For example, Thunder Bay Area Food Strategy (TBAFS) began to develop partnerships with regional Indigenous leaders and organizations to better understand the barriers and opportunities to engagement with the TBAFS and their efforts to affect food policy and improve food security in the region. Their efforts led to the establishment of the Indigenous Food Circle, "which aimed to reduce Indigenous food insecurity, increase food self-determination, and establish meaningful relationships with the settler population through food." (Levkoe et al., 2019, p. 102). Such relationship building particularly in Urban contexts predates discussion on models for normative shifts away from food as commodity towards visions of what scholars refer to as "food commons" that are centred in Indigenous governance systems (DeSchutter, 2013; McGregor, 2013).

Application of frameworks—like the Tri-governance framework (Figure 2)—derived without direct input from language speakers and the community members themselves is a recolonizing approach (Levkoe et al, 2019; Tuck & Wang, 2012). Further work on Food as Commons concepts within the Canadian Food Policy context will benefit from centering resurgent Indigenous governance priorities and reflect the worldviews of the specific Indigenous peoples in a given region. Adding an Indigenous governance layer to this framework must be based on community input and reflect the unique Nation-to-Nation relationships of that region. Without such care, application of the tri-governance framework as a tool for shifting to food commons re-colonizes Indigenous food systems (Tuck & Wang, 2012; Reo et al., 2017)

Some would assume Canada's adoption of United Nations Declaration on the Rights of Indigenous Peoples (known as UNDRIP) legislation in 2021 would have a positive impact on food policy. Proponents of UNDRIP advance the legislation as a method to respect Indigenous food sovereignty (APTN, 2021). Arguments against development projects, for example, as infringements on Anishnaabe treaty "common" rights to "hunt and fish" can be made relative to UNDRIP. Critics of Canada's UNDRIP note that there exists plenty of current legislation and legal obligations in place now that Canada fails to implement. Chief Dean Sayers rejects UNDRIP as an inferior deal for Robinson Huron treaty Territory signatories (Sayers, 2021). A lack of will to implement the already existing legislation rather than a lack of instruments is at play, with those expressing concerns about UNDRIP concerned the Canadian interpretation of UNDRIP will undermine specific Treaty agreements in place today (McIvor, 2020; APTN, 2021) and further municipalize Indigenous governance in the process (Schmidt 2022). As the act currently stands, there is no provision for either land back, nor for respecting veto on projects that interfere with Indigenous food systems. To date, Canada has treated the diverse Indigenous traditions around food "with contempt by settler governments and viewed as detrimental to colonial notions of progress and development" (Levkoe et al., 2019, p. 103). As with all areas of policy, there is no "Pan-Indigenous" solution.

With resource exploitation sanctioned by the government through contracts with private enterprises—as the TEK Elders' face in the Robinson Huron Treaty territory with forestry giant AECOM—the capacity to maintain or rebuild traditional food economies is weakened. The complex agro-forestry ecosystems that supported cranberries, blueberries, Deer, fish, and moose populations long replaced with forestry monocultures (Pine, 2018.; Stolz et al., 2017). Revisiting commodification not only of foods but of forests and water resources is crucial to address Indigenous peoples' food security issues (Desmarais & Wittman, 2014). Forest commodification treats vast swaths of ecosystems as timber, and after cutting, commercially valuable species are prioritized turning once biodiverse food forests into sterile plantations. Yet forests and waters provide traditional foods, including migratory species like Caribou and fish, and thus vast territories of intact wilderness are required to ensure a functioning food system. Adjusting Canada's environmental assessment processes at the provincial and the federal level to prioritize this broad view of food production would ensure resource developers would have to consider impacts on Indigenous food systems before development permits could be issued. In this

situation, application of UNDRIP could provide further legal support within Canada's court system to uphold food rights connected to land management.

Collaboration with and leadership from Indigenous peoples is necessary to push past the commodity view and embrace the commons in an appropriate context to the lands, languages and Peoples who inhabit them that "Canadians" occupy. Before such work can meaningfully emerge, Canada's food movements must first "critically interrogate oppressive structures that include capitalism, patriarchy, white supremacy, and colonialism" (Levkoe et al., 2019, p. 103). Health units and other municipal institutions have made significant improvements in food guidance over the past few decades, as evidenced with the adoption of the Food Pyramid discussed earlier in this paper. Yet this approach uncritically applied negates "the cultural and geographically-dependent, meat-based diets of many First Nations peoples" (Sumner & Desjardin, 2019, p. 3).

A commodified view of life is wrapped up in these oppressive structures, and thus to adopt a commons framework is not a separate exercise from dismantling these. It is arguable in a settler-colonial context that preliminary work to shift these norms is required before any meaningful engagement with food as a commons can take place. A normative shift in how we value food, away from pure economic considerations and towards legitimizing non-economic dimensions, develops the capacity to act politically based on these other considerations. Food advocates could champion this shift everywhere—from food policy councils to regional health units. Food as a human right, an essential resource for survival, a public good, and a commons cannot just be judged by its economic returns, investment costs, or economic feasibility, but by the social impact it can have on our common wealth, reducing inequalities, securing essential rights, and safeguarding natural resources for current and future generations

Public policies that incorporate this normative shift can be instruments for transformation if Canada chooses to recognize the multidimensionality of food and its consideration as a commons, public good and human right in the preamble of the new National Food Policy (ad hoc Committee, 2017). Examples across Canada suggest this normative shift is already under way in the form of various municipal food charters in communities like Fredericton and Kamloops to the provincial food charter adopted in Manitoba, all of which view food in multidimensional ways. Such normative shifts become vehicles for the third component or pillar of critical guidance identified by Koç et al. (2017), questioning power.

Food as a commons offers policy levers for mitigating and adapting to climate breakdown. The benefit for public good can be modeled by utilizing public properties, such as schools, libraries, municipal lands, and government buildings to initiate or amplify food commons projects. Public institutions can promote freely-accessible urban gardens, purchase and offer organic food in schools, hospitals, army headquarters and the like, include green rooftops as compulsory architectural measures, ban ultra-processed foods on their premises, or employ farmers as public servants just to name a few. Another concrete policy action triggered by a normative shift: food provided to our children in school lunch programs should be locally-sourced, seasonal, organic, and freshly prepared. In this way, the fourth pillar Koç et al. (2017) identify—encouraging social change—is built. There are political implications for this counter-

hegemonic approach to food systems, but they require a broader valuation of food and a new social construct to view, produce and distribute food differently. Without a solid sense of this altered landscape—a narrative to guide change—policy explorations for reframing food as a commons will be less effective in articulating pathways for transformation.

Nutrition North, today a failed policy, could implement the multidimensional food values model (Figure 1) to help address fundamental flaws embedded in a food-as-commodity approach. Research across the North suggests that developing co-management agencies and nutritional monitoring, promoting knowledge exchange on how northern Aboriginal peoples adapt to consumption of alternative species, and fostering regional sharing networks (which are currently excluded from the NNC Program) together preserve nutritional integrity and cultural survival (Armitage et al., 2011; Berkes & Jolly, 2002; LeBlanc, 2014; Rosol et al., 2016). Yellowhead Institute's 2019 Red Paper states "as food sources dwindle and face extinction due to the long-term impacts of industrial infrastructure, extraction, habitat loss, and human settlement" it is crucial for Canadians to recognize "Traditional foods are not just about sustenance, but medicine and education as well" (King et al., 2019, pp. 32–33). Canadian governments' ongoing focus on "food security" as an exercise of simply supplying ample caloric count to avoid crisis while allowing destruction of the ecosystems that provide stable food systems and lead to food sovereignty.

Conclusion

Successful transition to food as a commons depends in part on ensuring this interconnectedness is captured in the way we collectively define goals and institutions for governing that transition. Applied to sustainable and fair food systems, the way we define food (values, purpose, meanings) shapes the governing mechanisms we can devise to better produce, distribute, and consume that food. The framework proposed here offers critical food guidance to embed the multidimensionality of food and its consideration as a commons in alternative collective decision making structures that clearly would require different institutions, policies, subsidies, and legal frameworks. This normative shift offers not only guiding principles relevant for regional and urban food policy councils within the Canadian state, but also critical food guidance for government policies that shape First Nations food initiatives. Programs aimed to improve Indigenous peoples' food security that adopt a multidimensional food values framework give space for program delivery to recognize non-economic and relational values (Pascual et al., 2017), which are largely obscured in Western policies and subsidies. Moreover, by accepting non-economic dimensions of food as well as economic ones, food commons programmes can promote localized traditional or country food networks, and fulfill the duty to protect wild spaces in which Aboriginal peoples engage in the food forestry, harvesting and hunting economies as protected in various Treaties—the Robinson Huron Treaty in particular.

Further research is required to make the case for the Canadian government to adopt a declaration of the multidimensionality of food, such that food is no longer considered as a mere commodity but a commons, public good and human right that shall be guaranteed to every Canadian citizen. Adopting this framework could relieve state, private sector, and civil society from engaging in the conceptual and economic gymnastics involved with trying to commodify other non-economic food dimensions. Such work requires building momentum to engage what Koç et al. (2017) call the third component or pillar of critical food guidance—questioning power.

Deeper attention must also be paid to shifts in policy frameworks provincially, territorially, and federally—from self-governance negotiations to "moderate livelihood fisheries" to adopting UNDRIP. These policy changes are reshaping treaty relationships and further entrenching an approach to "Nation-to-Nation" that reduces Anishnaabek Nations and other Indigenous communities with inherent title and rights to what Russ Diabo calls fourth level municipal-style governments (Diabo, 2018). Food movements must become involved in and uplift Land Back movements to ensure these assimilative efforts do not undermine hundreds of years of resistance and the regenerative efforts of Indigenous communities seeking to recover their own food ways and lands and waters for the sake of their health and that of their grand children's grand children.

The ongoing COVID-19 pandemic has raised the alarm on hunger, as well as the opportunity for mutual aid. Pursuing partnerships for land to be used in food commons schemes could be a mutual aid "tool for localizing the food system and decolonizing land at the same time." (Bowness, 2015, pp. 24–25). The desire to create commons on public lands has both the potential for both decolonization (Grey & Patel, 2014) as well as the extension of existing conflicts. Employing participatory action research, as the one used here with Anishnaabek communities, as a methodology for food commoning scholarship offers another tool for building local capacity to transform food systems and decolonizing relationships. In that sense, valuing and governing food as a commons is itself critical food guidance. Food commons offers a set of principles that inform practice, reconnecting food to its multiple dimensions that are not valued when food is simply a commodity.

References

ad hoc Working Group on Food Policy Governance. (2017, September). *Building a healthy, just and sustainable food system: Food Secure Canada's recommendations for a food policy for Canada* (Policy Brief). Food Secure Canada, Ottawa. https://foodsecurecanada.org/sites/foodsecurecanada.org/files/attached_files/policy_brief_a_food_policy_for_canada_sept_28_by_fsc.pdf

Appadurai, A. (2005). Commodities and the politics of value. In M. M. Ertman & J. C. Williams (Eds.), *Rethinking commodification: Cases and readings in law and culture*, (pp. 34-45). New York University Press.

APTN. (2021, May 20). *Diabo and Saganash debate UNDRIP bill: A bad law or a small step forward?* [Video] APTN News. https://www.aptnnews.ca/nation-to-nation/diabo-and-saganash-debate-undrip-bill-a-bad-law-or-a-small-step-forward/

Aroland First Nation. (2022). *About us*. https://www.arolandfi rstnation.ca/about-us.html

Armitage, D., Berkes, F., Dale, A., Kocho-Schellenberg, E., & Patton E. (2011). Co-management and the co-production of knowledge: Learning to adapt in Canada's Arctic. *Global Environmental Change, 21*(3), 995-1004. https://doi.org/10.1016/j.gloenvcha.2011.04.006

Bartlett, C., Marshall, M., & Marshall, A. (2012). Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing. *Journal of Environmental Studies and Sciences, 2*(4), 331-340. https://doi.org/10.1007/s13412-012-0086-8

Berkes, F., George, P. J., Preston, R. J., Hughes, A., Turner, J., & Cummins, B. D. (1994). Wildlife harvesting and sustainable regional Native economy in the Hudson and James Bay Lowland, Ontario. *Arctic, 47*(4), 350–360.

Berkes, F., & Jolly, D. (2002). Adapting to climate change: Social-ecological resilience in a Canadian western Arctic community. *Conservation Ecology, 5*(2), 18.

Borrows, J. (2019). *Law's Indigenous ethics*. University of Toronto Press.

Bowness, E. (2015). *Urban Green Commons as Food Sovereignty (and vice versa).* IASC 1st Thematic Conference on the Urban Commons [Conference Paper], Bologna.

Chiblow, S. (2020). An Indigenous Research Methodology That Employs Anishinaabek Elders, Language Speakers and Women's Knowledge for Sustainable Water Governance. *Water (Basel), 12*(3058), 3058. doi:10.3390/w12113058

Clapp, J., & Isakson, S. R. (2018). Risky returns: The implications of financialization in the food system. *Development and Change, 49*(2), 437-460. https://doi.org/10.1111/dech.12376

Conti, K. M. (2006). Diabetes prevention in Indian country: Developing nutrition models to tell the story of food-system change. *Journal of Transcultural Nursing, 17*(3), 234-245. https://doi.org/10.1177%2F1043659606288380

Cooper, M. (2020, November 18). Nutrition North Canada riddled with problems. *The Manitoban*, *13*, 12.

Dardot, P., & Laval, C. (2014). *Commun, essai sur la révolution au XXI° siècle*. Le Découverte.

DeSchutter, O. (2013). *Mandate of the Special Rapporteur on the Right to Food: Preliminary Remarks on the Visit to Canada from 6 to 16 May 2012.* United Nations: Office of the United Nations High Commissioner for Human Rights. https://foodsecurecanada.org/sites/foodsecurecanada.org/files/20120321_SRRTF_Aide-m%C3%A9moire_Canada.pdf

Desmarais, A. A., & Wittman, H. (2014). Farmers, foodies, and First Nations: getting to food sovereignty in Canada. *Journal of Peasant Studies, 41*(6), 1153-1173. https://doi.org/10.1080/03066150.2013.876623

Diabo, R. (2018). *Our right of Indigenous self-determination is being hijacked by Trudeau: Recognition and implementation of rights framework.* First Nations Strategic Policy Counsel, *16*(1-3). https://epe.lac-bac.gc.ca/100/201/300/first_nations_strategic_bulletin/2018/v16n01-03.pdf

European Commons Assembly. (2016). *Food as a common good: The food commons in Europe*. [Conference Presentation], European Commons Assembly, 2016 May 18-20, Villarceaux, France, https://blog.p2pfoundation.net/food-commons-europe/2017/02/01

Food and Agriculture Organization of the United Nations (FAO). (2009). *The State of Food and Agriculture 2009: Livestock in the Balance.* https://www.fao.org/3/i0680e/i0680e.pdf

Frison, E. A. (2016). *From uniformity to diversity: a paradigm shift from industrial agriculture to diversified agroecological systems*. International Panel of Experts on Sustainable Food systems. http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf

Galloway, T. (2017). Canada's northern food subsidy nutrition north Canada: A comprehensive program evaluation. *International Journal of Circumpolar Health, 76*(1), 1279451. https://doi.org/10.1080/22423982.2017.1279451

Gittelsohn, J., Harris, S.B., Burris, K.L., Kakegamic, L., Landman, L.T., Sharma, A., Wolever, T. M., Logan, A., Barnie, A., & Zinman, B. (1996). Use of ethnographic methods for applied research on diabetes among the Ojibway-Cree in northern Ontario. *Health Education and Behavior*, *23*(3), 365-382. https://doi.org/ 10.1177/109019819602300307.

Gliessman, S. R. (2015). *Agroecology: The ecology of sustainable food systems* (3rd ed.). CRC Press.

Government of Canada. (2019). *Food policy for Canada: Everyone at the table*. https://www.canada.ca/content/dam/aafc-aac/documents/20190614-en.pdf

Grey, S., & Patel, R. (2015). Food sovereignty as decolonization: some contributions from Indigenous movements to food system and development politics. *Agriculture and Human Values, 32*(3), 431-444. https://doi.org/10.1007/s10460-014-9548-9

Hammelman, C., Levkoe, C., Agyeman, J., Kharod, S., Moragues Faus, A., Munoz, E., Olivia, J., & Wilson, A. (2020). Integrated food systems governance: Scaling equitable and transformative food initiatives through scholar-activist engagement. *Journal of Agriculture, Food Systems, and Community Development, 9*(2), 71-86. https://doi.org/10.5304/jafscd.2020.092.003

Holt-Giménez, E. (2017). *A foodie's guide to capitalism: Understanding the political economy of what we eat*. Monthly Review Press.

Hopper, M., & Power, G. (1991). The fisheries of an Ojibwa community in northern Ontario. *Arctic*, *44*(4), 267–274.

Institute of Medicine (U.S). (2003). *Dietary reference intakes: Applications in dietary planning*. National Academies Press. https://pubmed.ncbi.nlm.nih.gov/25057648/

Jones, S. (2018). *Treaty annuity right: The treaty right no one wanted to talk about. Until now.* Frontier Centre for Public Policy Backgrounder. No. 124. https://fcpp.org/wp-content/uploads/FB124_TreatyAnnuityRight_SP2018_F2.pdf

Karatani, K. (2014). *The structure of world history From modes of production to modes of exchange.* Duke University Press.

King, H., Pasternak, S., & Yesno, R. (2019, October) *Land Back: A Yellowhead Institute Red Paper.* Yellowhead Institute. https://redpaper.yellowheadinstitute.org/wp-content/uploads/2019/10/red-paper-report-final.pdf

Koç, M., Bancerz, M. & Speakman, K. (2017). The interdisciplinary field of food studies. In M. Koç, J. Sumner & A. Winson (Eds.), *Critical perspectives in food studies* (pp. 3-18). Oxford University Press.

Kuhnlein, H. V., Receveur, O., & Chan, H. M. (2001). Traditional Food Systems Research with Canadian Indigenous Peoples. *International Journal of Circumpolar Health, 60*(2), 112-122.

La Mela, M. (2014). Property rights in conflict: wild berry picking and the Nordic tradition of allemansrätt. *Scandinavian Economic History Review, 62*(3), 266-289. https://doi.org/10.1080/03585522.2013.876928

Lappe, F. M. (2021). *Diet for a Small Planet (Revised and updated).* Random House Publishing Group.

LeBlanc, J. W. (2014). Natural Resource Management and Indigenous Food Systems in Northern Ontario [Unpublished doctoral dissertation]. Lakehead University.

Levkoe, C. Z., Lefebvre, R., & Blay-Palmer, A. (2017). *Food counts: A pan-Canadian sustainable food systems report card.* Centre for Sustainable Food Systems, Wilfred Laurier University. https://fledgeresearch.files.wordpress.com/2017/05/food-counts-pan-canadian-sustainable-food-systems-report-card2.pdf

Levkoe, C. Z., & Sheedy, A. (2019). A people-centred approach to food policy making: Lessons from Canada's People's Food Policy project. *Journal of Hunger & Environmental Nutrition, 14*(3), 318-338. https://doi.org/10.1080/19320248.2017.1407724

Levkoe, C., Ray, L., & Mclaughlin, J. (2019). The Indigenous food circle: Reconciliation and resurgence through food in northwestern Ontario. *Journal of Agriculture, Food Systems, and Community Development, 9*(B), 1-14. https://doi.org/10.5304/jafscd.2019.09B.008

Makokis, J. (2013). *Indigenous sovereignty, jurisdiction, and international law.* Unpublished manuscript. https://www.bluequills.ca/wp-content/uploads/2013/11/Indigenous-Sovereignty-Jurisdiction-and-International-Law.pdf

Marschke, M., Armitage, D., Le Van, A., Tuyen, T., & Mallee, H. (2012). Do collective property rights make sense? Insights from central Vietnam. *International Journal of the Commons, 6*(1), 1–27. DOI: http://doi.org/10.18352/ijc.334

Martens, T., Cidro, J., Hart, M. A., & MacLachlan, S. (2016). Understanding Indigenous food sovereignty through an Indigenous research paradigm. *Journal of Indigenous Social Development, 5*(1), 18-37.

Martorell, H., & Andrée, P. (2019). The commoning of food governance in Canada. In J. L. Vivero Pol, H. Mattei, & O. DeSchutter (Eds.), *Routledge Handbook of Food as a Commons*. Routledge.

Mauss, M. (1970). *Mauss, marcel. The gift: Forms and functions of exchange in archaic societies.* Cohen & West.

McFarlane, P., & Schabus, N. (Eds.). (2017). *Whose land is it anyways? A manual for decolonization.* Federation of Post-Secondary Educators of BC.

McGregor, D. (2013). Toward a paradigm of indigenous collaboration for geographic research in Canadian environmental and resource management. In J. T. Johnson, & S. C. Larsen (Eds.), *A deeper sense of place: stories and journeys of indigenous-academic collaboration.* Oregon State University Press.

McIvor, B. (2021). *Standoff*. Nightwood Editions. https://ebookcentral.proquest.com/lib/[SITE_ID]/detail.action?docID=6862859

McIvor, B. (2020, December 16). *A cold rain falls*. First Peoples Law. https://www.firstpeopleslaw.com/public-education/blog/a-cold-rain-falls-canadas-proposed-undrip-legislation#:~:text=After%20years%20of%20false%20starts,by%20introducing%20Bill%20C%2D15.

Mihesuah, D. A. (2003). *Indigenous American women*. University of Nebraska Press.

Morrison, D. (2020). Reflections and realities: Expressions of food sovereignty in the fourth world. In P. Settee & S. Shukla (Eds.), *Indigenous food systems: Concepts, cases, and conversations* (pp. 17-38.). Canadian Scholars.

Nikkel, L., Summerhill, V., Gooch, M., Bucknell, D., & LaPlain, D. (2021). *Second harvest and value chain management international release new research: Canada's invisible food network.* Ontario, Canada: Second Harvest and Value Chain Management International.

Noiret, B. (2016). Food security in a changing climate: A plea for ambitious action and inclusive development. *Development, 59*(3-4), 237-242. https://doi.org/10.1057/s41301-017-0092-

Ontario Nature. (2014). *Beyond the fields: The value of forest and freshwater foods in Northern Ontario*. https://ontarionature.org/wp-content/uploads/2017/10/beyond_the_fields.pdf

Ostrom, E. (1999). Coping with tragedies of the commons. *Annual Review of Political Science, 2*(1), 493-535. https://doi.org/10.1146/annurev.polisci.2.1.493

Pascual, U., Balvanera, P., Díaz, S., Pataki, G., Roth, E., Stenseke, M., Watson, R. T., Dessane, E. B., Islar, M., Kelemen, E., Maris, V., Quaas, M., Subramanian, S. M., Wittmer, H., Adlan, A., Ahn, S., Al-Hafedh, Y. S., Amankwah, E., Asah, S. T., …Yagi, N. (2017). Valuing nature's contributions to people: the IPBES approach. *Current Opinion in Environmental Sustainability*, *26–27*, 7-16. https://doi.org/10.1016/j.cosust.2016.12.006

Pelto, G., & Pelto, P. (1983). Diet and delocalization: Dietary changes since 1750. *The Journal of Interdisciplinary History, 14*, 507-28. doi:10.2307/203719

Petahtegoose, A. (2018). *Anishnaabek knowledge and governance of Robinson Huron Territory* [Presentation]. TEK Elders Group meeting with EACOM, 2018 September 17, Little Current, ON.

Pettenati, G., Toldo, A., & Ferrando, T. (2019). The food systems as commons. In J. L. Vivero Pol, T. Ferrando, O. DeSchutter & H. Mattei (Eds.), *The Routledge handbook of food as commons* (pp. 42-56). Routledge.

Pine, W. (2018). *Wake Up! TEK Elders call for moratorium on Arial Spraying* [Keynote Address]. Earth Day, 2018 April 18, Nathan Phillips Square, Toronto, ON.

Polanyi, K. (1957). *The great transformation: The political and economic origins of our time*. Beacon Press.

Qaqqaq, M. (2021). *Colonization and genocide* [Speech]. March for Truth and Justice, 2021 July 31. Parliament Hill, Ottawa.

Radin, M. J. (1996). *Contested commodities*. Harvard University Press.

Ray, L. (2017). Exploring well-being in an Anishnaabe community: A qualitative study [Published Master's Thesis, Lakehead University]. DSpace. https://knowledgecommons.lakeheadu.ca/handle/2453/3882

Reo, N. J., Whyte, K. P., McGregor, D., Smith, M. A., & Jenkins, J. (2017). Seven principles for Indigenous partnerships in landscape-scale governance. *AlterNative: An International Journal of Indigenous Peoples, 13*(2), 58-68.

Robinson Huron Waawiindaamaagewin. (2020). *Robinson Huron Waawindemaagewin presents a transcript of the original treaty document (1850) with Anishnaabemowin translation and interpretation.* Robinson Huron Waawiindaamaagewin. Cutler, ON.

Robson, J., & Lichtenstein, G. (2013). Special issue on Latin American commons: An introduction. *Journal of Latin American Geography, 12*, 1-5. http://dx.doi.org/10.1353/lag.2013.0004

Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S. I., Lambin, E., Lenton, T. M., Scheffer, M., Folke, C., Schellnhuber, H. J., Nykvist, B., de Wit, C. A., Hughes, T., van der Leeuw, S., Rodhe, H., Sörlin, S., Snyder, P. K., Costanza, R., Svedin, U., …Foley, J. (2009). Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society, 14*(2), 32.

Rockström, J., Williams, J., Daily, G., Noble, A., Matthews, N., Gordon, L., Wetterstrand, H., DeClerck, F., Shah, M., Steduto, P., de Fraiture, C., Hatibu, N., Unver, O., Bird, J., Sibanda, L., & Smith, J. (2016). Sustainable intensification of agriculture for human prosperity and global sustainability. *Ambio, 46*(1), 4–17. https://doi.org/10.1007/s13280-016-0793-6

Rosenberg, D. M., Berkes, F., Bodaly, R. A., Hecky, R. E., Kelly, C. A., & Rudd, J. W. (1997). Large-scale impacts of hydroelectric development. *Environmental Reviews, 5*(1), 27-54. https://www.doi.org/10.1139/a97-001

Rosol, R., Powell-Hellyer, S., & Chan, H. M. (2016). Impacts of decline harvest of country food on nutrient intake among Inuit in Arctic Canada: Impact of climate change and possible adaptation plan. *International Journal of Circumpolar Health, 75*, 31127. https://dx.doi.org/10.3402%2Fijch.v75.31127

Sahlins, M. (1972). *Stone Age Economics.* Aldine-Atherton.

Sayers, D. (2021). *Anishnaabe governance and the Robinson Huron Treaty* [Speech] 151st anniversary of the signing of the Robinson Huron Treaty Conference, 2021 September 9, Sault Ste. Marie, ON.

Schmidt, J. J. (2022). Dispossession by municipalization: Property, pipelines, and divisions of power in settler colonial Canada. *Environment and Planning C: Politics and Space.* 23996544211065654. https://www.doi.org/10.1177/23996544211065654

Settee, P., & Shukla, S. (2020). *Indigenous food systems: concepts, cases, and conversations*. Canadian Scholars.

Shepperson, M. (2017, October 11). How ancient lentils reveal the origins of social inequality. *The Guardian.* https://www.theguardian.com/science/2017/oct/11/lentils-origins-of-social-inequality

Shiva, V. (2016). *The violence of the Green Revolution*. The University Press of Kentucky.

Sinclair, N. J. (2013). Nindoodemag bagijiganan: a history of Anishinaabeg narrative. University of British Columbia [Published doctoral dissertation, University of British Columbia]. Open collections: UBC theses and dissertations. https://open.library.ubc.ca/media/stream/pdf/24/1.0071931/1

Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sörlin, S. (2015). Planetary Boundaries: Guiding human development on a changing planet. *Science, 347*(6223), 736. https://doi.org/10.1126/science.1259855

Stolz, W., Levkoe, C. Z., & Nelson, C. (2017). *Blueberry foraging as a social economy in northern Ontario: A case study of Aroland First Nation, Arthur Shupe Wild Foods, Nipigon Blueberry Blast Festival, and the Algoma Highlands Wild Blueberry Farm and Winery*. Centre for Sustainable Food Systems. http://nourishingontario.ca/wp-content/uploads/2017/10/Foraging-Case-Study-FINAL1.pdf

Sumner, J. & Desjardins, E. (2021). Critical food literacy. In M. Koc, J. Sumner, & A. Winson (eds.), *Critical Perspectives in Food Studies* (third edition). Toronto: Oxford University Press.

TEK Elders Group. (2021). *Resolution acknowledging TEK Elders as the body for Anishnaabe environmental governance Councils in the Robinson Huron Treaty Territory*. 2021, August 3, Robinson Huron Waawiindaamaagewin and TEK Elders Conference. Whitefish River First Nation. [Unpublished document]

Tirado-von der Pahlen, C. (2019). Climate change, the food commons and human health. In J. L. Vivero-Pol, F. Tomaso, O. DeSchutter, & U. Mattei. *Routledge handbook of food as a commons: Expanding approaches* (pp. 356-370). Routledge.

Tuck, E., & Wang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education & Society, 1*(1), 1-40.

United Nations Conference on Trade and Development (UNCTAD). (2013). *Trade and Environment Review: Wake up before it is too late: Make agriculture truly sustainable now*

for food security in a changing climate. https://unctad.org/system/files/official-document/ditcted2012d3_en.pdf

Val, V., Rosset, P. M., Zamora Lomelí, C., Giraldo, O. F., & Rocheleau, D. (2019). Agroecology and La Via Campesina I. The symbolic and material construction of agroecology through the dispositive of "peasant-to-peasant" processes. *Agroecology and Sustainable Food Systems, 43*(7-8), 872-894. https://doi.org/10.1080/21683565.2019.1600099

Vecsey, C. (1987). Grassy Narrows Reserve: Mercury pollution, social disruption, and natural resources: A question of autonomy. *American Indian Quarterly, 11*(4), 287-314. https://www.doi.org/10.2307/1184289

Venne, S. (2017). Crown title: A legal lie. In R. McFarlane & N. Schabus (Eds.), *Whose land is it anyway? A manual for decolonization.* Federation of Post-Secondary Educators of BC. https://fpse.ca/sites/default/files/news_files/Decolonization%20Handbook.pdf

Vivero Pol, J. L. (2017a). Food as commons or commodity? Exploring the links between normative valuations and agency in food transition. *Sustainability, 9*(3), 442. https://doi.org/10.3390/su9030442

Vivero Pol, J. L. (2017b). *The food commons in Europe. P2P* Foundation Blog. https://blog.p2pfoundation.net/food-commons-europe/2017/02/01

Walsh, D. S. (2015). The nature of food: Indigenous Dene foodways and ontologies in the era of climate change. *Religion and Food, Scripta Instituti Donneriani Aboensis*, *26*, 225-249

Weis, T. (2013). *The ecological hoofprint: the global burden of industrial livestock*. Zed Books.

Whyte, K. (2021, May). *Pathways to inclusive and sustainable recoveries* [Keynote Presentation]. Canadian Society of Ecological Economics 13th Biennial Conference. https://cansee.ca/wp-content/uploads/2021/05/2021-CANSEE-Program.pdf

Wittman, H., Desmarais, A. A., & Wiebe, N., & (2010). *Food sovereignty: reconnecting food, nature & community*. Fernwood Publishing.

Willows, N. D. (2005). Determinants of healthy eating in Aboriginal Peoples in Canada: The current state of knowledge and research gaps. *Canadian Journal of Public Health, 25*(3), S32-41.