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The Role of Food System Planning in Facilitating Local Food Procurement for Schools

Rôle de la planification du système alimentaire dans la facilitation de l'approvisionnement alimentaire local pour les repas scolaires

Elina Blomley, Tammara Soma, Christine Callihoo, Richard Han, Claudia Páez-Varas, Chris Bodnar et Belinda Li

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Résumé de l'article

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The Role of Food System Planning in Facilitating Local Food Procurement for Schools

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Abstract

Farm to School (F2S) programs seek to connect students with their local food system and community. Providing local food to schools, however, relies on the continuity of local food production in British Columbia (B.C.), as well as the capacity and willingness of farmers to support this "alternative market." Planners have an important role to play in supporting farmers' ability to sustain local food systems. At the provincial level, planning for farmland preservation through the Agricultural Land Reserve has helped to secure some of the farmland needed to support local food production into the future. However, preserving farmland is only one part of the solution to sustain local food systems. Drawing upon key informant interviews (n=21), this paper identifies planning-related barriers and opportunities for local food procurement in schools. This research emphasizes the invaluable roles that planners and policymakers can play in reimagining a just and sustainable food system transition

Résumé

Les programmes Farm to School (F2S) visent à connecter les élèves à leur système alimentaire local et à leur communauté. Cependant, fournir des aliments locaux aux écoles dépend de la continuité de la production alimentaire locale en Colombie-Britannique (C.-B.), ainsi que de la capacité et de la volonté des agriculteurs de soutenir ce « marché alternatif ». Les planificateurs ont un rôle important à jouer pour soutenir la capacité des agriculteurs à soutenir les systèmes alimentaires locaux. Au niveau provincial, la planification de la préservation des terres agricoles par le biais de la réserve de terres agricoles a aidé à sécuriser certaines des terres agricoles nécessaires pour soutenir la production alimentaire locale à l'avenir. Cependant, la préservation des terres agricoles n'est qu'une partie de la solution pour soutenir les systèmes alimentaires locaux. S'appuyant sur des entretiens avec des informateurs clés (n = 21), ce document identifie les obstacles et les opportunités liés à la planification pour l'approvisionnement alimentaire local dans les écoles. Cette recherche met l'accent sur les rôles inestimables que les agriculteurs, le gouvernement et les planificateurs peuvent jouer pour réinventer une transition juste et durable du système alimentaire.

Keywords:

School food, local food, food procurement, food system planning

Mots-clés:

alimentation scolaire; alimentaire locale; approvisionnement alimentaire; planification du système alimentaire

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Introduction

Food is essential to life and provides a lens into culture, health, economy, the environment, as well as how we organize ourselves in societies more broadly (Belasco, 2008; Coca, 2021). However, dominant agri-food practices (i.e., large-scale monoculture agriculture) reflect a relationship established on the commodification of the earth, soil, plants, and people (Otero, 2018). The neoliberal food system has effectively promoted the industrial agricultural food production model since the mid-1900's through the economically driven expansion of mono-cultured high-yielding crops, synthetic pesticides, and chemical fertilizers (Pingali, 2012). As agriculture was scaled up industrially, the surrounding infrastructure for distribution and consumption followed suit, establishing the corporate food regime (McMichael, 2005).

In Canada, the corporate consolidation of farmland, agriculture inputs, and infrastructure has rapidly increased in the last fifty years (Kalfagianni & Skordili, 2019). In 2015, three transnational corporations (Monsanto, Dupont, & Syngenta) controlled 54% of global seed sales (Mooney, 2015). Farmers are also caught in indebtedness within this system, estimated at over 115 billion dollars in collective farm debt (Statistics Canada, 2021). This is further evidenced by a 2016 analysis showing agri-food corporations (e.g., Monsanto, Agrium, John Deere, Shell) capturing 98% of Canadian farmers' revenues due to the rising costs of inputs and services (Qualman, 2017). The full environmental impacts of the industrial food system are far-reaching and a challenge to quantify, given high levels of waste, unaccounted externalities, and high emissions throughout the entire food system (Kalfagianni & Skordili, 2019).

Despite promising more yields, hunger continues to grow under this food system. Currently, one in seven Canadians (15%) experience food insecurity, revealing a disproportionate impact on households with children (19%) compared to those without (12%) (Idzerda et al., 2022). This infringement by the corporate food regime on social sustainability within Canada contradicts the fact that Canada is a signatory under the United Declaration of Human Rights to ensure the right to food (Food Secure Canada, 2011). While a signatory to numerous international covenants, Canada has not yet granted constitutional protection to the right to food (Grann, Carlsson, Mansfield-Brown, 2023). According to the right to food approach, the government should ensure that everyone has ongoing available, adequate, and access to food by ensuring people's livelihoods to purchase and/or grow food (Food Secure Canada, 2011).

After years of lobbying by diverse stakeholders and rightholders consisting of academics, a coalition of not-for-profits, educators and diverse school community members, the federal government committed to creating a national school food policy in 2021, pledging 1 billion dollars to school food policy over five years (Government of Canada, 2022). However, at the launch of the Federal Budget 2023, no funding had been committed. Yet, at the federal, provincial and municipal levels, governments have the opportunity to proactively solidify a system that supports local growers and farmers, ensuring local, culturally appropriate, and nutritious food in schools. A larger opportunity underlies the potential of this system, which could enable communities to strengthen their local food systems, create resilient local food economies, and foster a healthier relationship between youth, food, and the land. In British Columbia (B.C.), Farm to School B.C., a program of the Public Health Association of B.C, has aimed to fill this gap through three goals: (1) bringing healthy, local, and sustainable food into schools, (2) experiential and hands-on learning for students, and (3) enhancing the connectedness of communities and schools (Farm to School BC, 2019).

This opportunity, however, relies heavily on the continuity and sustainability of local food production. In B.C., efforts have been made to preserve approximately 4.6 million hectares of arable farmland from development through the Agricultural Land Reserve (ALR) (ALC, 2022). Farmland preservation through land use regulation is key to preserving the essential resource to protect future food needs and future generations (Caldwell, Hilts and Wilton, 2013). However, it has proven insufficient, as farmers in the province face rising input costs, land speculation (Rantanen, 2023), and unreliable local markets (Nixon & Newman, 2016). Through a food systems approach, land use planners, especially those focusing on food systems planning, have the opportunity to support food growers beyond farmland preservation and contribute to economic development and a thriving local food system (Soma & Wakefield, 2011).

Recognizing that supporting local food procurement for school meals requires complex place-based interventions, this study explores the feasibility of scaling up local food to school (F2S) procurement programming in the province. As Pitt and Jones (2016) argue, scaling up can mean many things including allowing an innovation to move across boundaries to reach more people, having greater impact, and in the context of the food system, reaching more consumers or producers. Other aspects to scaling up include expansion through growth in institutional capacity (McDonald et al., 2006), and civil society organizations encouraging mainstream institutions to change their practices (Pitt and Jones, 2016). A common definition of scaling up used by United Nations (UN) agencies, and one that we adopt in this study is "expanding, adapting and sustaining successful policies, programmes or projects in different places and over time to reach a greater number of people" (Linn, 2012, p.1). Drawing upon key informant interviews (n=21) with farmers, planners, government officials, educators, and non-profit administrators in B.C., this study examines the following research questions:

1. What are planning-related barriers and opportunities to scale up local food procurement for farm to school programs?

2. What is the role of planning and planners in helping facilitate local food procurement in schools?

Building upon the work of advocacy groups already facilitating school food procurement, this study explored the unique and invaluable roles that farmers, public institutions, civil society organizations and planners can play in supporting better access to local, equitable and sustainable foods for school food procurement. The change theory of transformative incrementalism (Buchan et al., 2019) was used to help inform how change may occur and how planners (especially food system planners) can contribute to food system transformation in a more effective manner. In undertaking local food procurement at a provincial scale, the study highlighted opportunities for planners to better engage with farmers in the complex food systems in B.C. through opportunities to supply school food programs. In this study, the acronym F2S (Farm to School) is used generally to refer to the integration of local farm foods for school meals and or snacks. F2S does not necessarily refer to specific programs offered by the Farm to School B.C program managed by the Public Health Association of B.C.

Literature Review

Food System Planning

The food system is characterized as a socioecological system, which includes the production, processing, distribution, and consumption of food as well as associated food-related waste management (Ericksen, 2008; Tendall et al., 2015). Historically, how food is

grown, distributed, and consumed has been increasingly shaped by a food regime that has been characterized as corporate focused and led (McMichael, 2005). Coined by Phillip McMichael, the corporate food regime characterizes the "... global deregulation of financial relations, calibrating monetary value by credit (rather than labour) relations" (2005, p.267). Negative environmental externalities associated with this system include but are not limited to climate change (Mahato, 2014), biodiversity loss (Dudley & Alexander, 2017), and soil degradation (Alam, 2014). They are not accounted for in the true cost of food under the corporate food regime (Dury et al., 2019). Under this corporate industrial food regime, Canada ranks 30th out of 38 wealthiest countries on child well-being for the lack of access to nutritious food and has been identified as the only G7 country to not have a nationally funded universal school meal program or policy (Ruetz et al., 2023). A public sector intervention can help ensure the future for farmers and the health and well-being of children, thus creating a potential win-win scenario.

Democratizing the food system is increasingly regarded as a strategy for communities to reclaim, localize, and promote resilient alternatives to a corporate food regime (Dahlberg, 2001). Asserting the right to "food sovereignty" is one way to emphasize the right of a community to define their agriculture, food systems, and policies in response to the corporate food regime (La Via Campesina, 2003). To democratize and localize food systems in Canada, planners have emphasized the invaluable role that local governments must play in this process (Buchan et al., 2015). Planners working within local governments are tasked with safeguarding "... the health and well-being of urban and rural communities by addressing the use of land, resources, facilities, and services with consideration to physical, economic, and social efficiency" (CIP, n.d.). Although the food system is critical for the social, economic, and environmental betterment of society, historically, it has been absent in planning practice, research, and education (Pothukuchi & Kaufman, 2000; Soma & Wakefield, 2011). Planners have historically overlooked food systems, as it was not viewed as part of their jurisdiction within the built environment, nor as needing fixing as it is within the market domain (American Planning Association, n.d.). However, as planners began to emphasize sustainability and social well-being at the turn of the millennium, there was increased interest in planning for food systems (Mui et al., 2021).

Rooted in collaborative partnerships, food system planning requires engagement and input from farmers and food growers, Indigenous nations, retailers, consumers, and local and regional governments throughout the entire life cycle of food (Growing Food Connections, n.d.). Food system planning also offers a framework through which planners can shorten the distance between food and consumer. Food systems and required infrastructure often extend past municipal jurisdictions (Soma et al., 2021). One approach to address the overlapping jurisdictions as planners is to do so from a bioregional scale (Hansen et al., 2020). Bioregions are geographically mapped by identifying a biome and shared community culture (Harris et al., 2016). Since the life cycle of food crosses municipal boundaries, bioregionalism offers a scale that facilitates the necessary interconnection for sharing the infrastructure, economies, and arable land required to feed communities (Hansen et al., 2020).

Planners can re-localize a community's food systems and support the strengthening of place-based food spaces and infrastructures by providing resources, undertaking projects and programs, advocating, facilitating, and through regulatory policy (Buchan et al., 2015). The growing role and specialization of planners in food system planning, and those who work as food system planners in

particular (Soma and Wakefield, 2011), may support efforts to scale up F2S. For example, food system planners may contribute to agri-food related economic development, conducting community agri-food assessments, preserving farmland, and policy development that would better enable interconnectivity within the agri-food supply chain through better distribution (Soma and Wakefield, 2011). Food system planning often intersects through both land use and social planning. For example, food asset mapping is a baseline tool planners use to assess local food infrastructure and sites of food-related community value (Soma, Li, et al., 2022). Zoning, comprehensive plans, and land-use planning can encourage the establishment of local food infrastructure and food growing (Cohen, 2018; HFPP, 2021). Moreover, policies and bylaws can be included in and scale up efforts of food growing and processing (Roseland, 2012), institutional procurement (Reynolds & Hunter, 2019), and farmland protection (Connell, 2021).

Within B.C, the provincial government and planners played an essential role in establishing farmland preservation by establishing the Agricultural Land Reserve (ALR) in 1973 (Eagle et al., 2015; Nixon & Newman, 2016). While limited in scope since it does not cover all prime farmland in the province, the ALR was seen as a valuable policy mechanism for securing future food resiliency and food security through land preservation. However, farmland protection alone is insufficient to ensure that the land is actually used for farming (Robert & Mullinix, 2018). This is evidenced in the case of B.C., with half of the land zoned within the ALR not being utilized for agriculture purposes (Tatebe et al., 2018). Furthermore, legal instruments, namely fines, to protect the arability of the land are limited. This lack of enforcement has led to large portions of the ALR being used as illegal fill sites for toxic construction materials (Britten, 2018). Without planning for the food system, namely investing in the planning of agri-food infrastructures and economic development, farmers and viable food production in the province are at risk (Tatebe et al., 2018).

Local Food Infrastructure and Public Procurement

To address the risk of loss of agricultural capacity and farmland, food system planners often focus on scaling up local food assets and infrastructure. However, creating a shared definition of "local" is challenging (Buchan et al., 2015). Legally, the Canadian Food Inspection Agency (2022) has defined local as "food produced in the province or territory in which it is sold or within 50km of the border of the originating province or territory." Given the considerations of scale, socio-political factors, and the fluidity of a place's agri-food network, many scholars encourage embracing multiple definitions of "local" (Martinez et al., 2010; Qazi & Selfa, 2005). While common initiatives around food system planning often promote local food systems (e.g., farmers markets, agri-tourism, community gardens), critics of localizing food systems warn against fostering the "local trap", emphasizing that rescaling food systems does not inherently address the social inequities caused by conventional food supply chains (Born & Purcell, 2006). Born & Purcell (2006) also note that efforts to localize food may conflate spatial relations with ethical relations without considerations of scale (Morgan & Sonnino, 2008). When local food efforts are founded upon inequities, impediments to food access and sustainability may continue to be replicated and perpetuated (Cleveland et al., 2015). As such, scaling up local food efforts is a challenging balancing act of sustaining growth without eroding overarching goals of supporting social, environmental, and desired localized economic impacts (Berti & Mulligan, 2016).

However, authors such as Stahlbrand (2016a, p.32) have identified numerous barriers to localizing the food system, including the missing "infrastructure of the middle," which addresses both the hard and soft infrastructures (e.g., relationships, food processing and distribution facilities, and governance structures) required to support small and mid-scale farmers in processing and distributing food. This middle infrastructure is disappearing due to the corporate consolidation of food systems, and the lack of investment in domestic processing and retail within Canada (Hendrickson et al., 2020; Stahlbrand, 2016b). On the retail end of the local food infrastructure in B.C, consolidation can be evidenced by 73.1% of total grocery store sales attributed to a handful of supermarket chains (Canadian Grocer, 2018). As the infrastructure required to process and sell food becomes consolidated by larger corporations, and the power to determine prices are concentrated in the hands of a few, small to mid-scale farms are excluded by this corporate food system and unable to compete with larger-scale purchasers (Hendrickson et al., 2020).

Advocates for localizing food systems emphasize the critical role that agricultural aggregators play in rebuilding the infrastructure of the middle (Day-Farnsworth & Morales, 2011; Stahlbrand, 2017). Farm aggregation is "the consolidation of products from multiple growers" (Day-Farnsworth & Morales, 2011, p. 229) often centred around food hubs and centres. The value of aggregators is increasingly recognized by governments and funding organizations (e.g., B.C. 2022 Economic Plan, Greenbelt Fund, Agriculture Canada's Local Food Infrastructure Fund). For example, the B.C. provincial government supported the development of the B.C. Food Hub Network, which seeks to improve access to facilities, equipment, and business acumen for local food growers and processors (B.C. Ministry of Agriculture, n.d.). A common mechanism to facilitate local food aggregation is through Food Hubs (FHs) (Berti & Mulligan, 2016; Blay-Palmer et al., 2013). Serving as vehicles for a sustainable transition away from the dominant supply chain, FHs serve as an organizational and logistical bridge to connect a fragmented network of local food producers, processors, and consumers (Berti & Mulligan, 2016; Blay-Palmer et al., 2013). Under that definition, FHs are commonly implemented as "...food distribution centres, virtual networks, farmers' markets, community kitchens and certification programs" (Blay-Palmer et al., 2013, p. 523). With the opportunity to provide both hard and soft infrastructure, FHs are highly effective tools in fostering resilient local food systems (Matson & Thayer, 2013; Stahlbrand, 2016b).

Harnessing the purchasing power of public institutions has been identified as a key leverage point in scaling up resilient food systems and upholding the right to food (Sumner & Lapalme, 2019). Given their scale, public sector institutions such as municipalities, academic institutions, health authorities, and school boards hold significant purchasing power in their food services' procurement policies (Morgan & Morley, 2014). Institutional food procurement is how and where food is purchased through food services. Food services are self-operated or, more commonly, externally contracted to food service management companies from low-cost global supply chains or broad-line distributors (Reynolds & Hunter, 2019). The lack of funding, infrastructure, and rigid contracts often results in public institutions relying on inexpensive and pre-processed ingredients (Reynolds & Hunter, 2017). Contradictions in governmental policies also result in a lack of accountability and diffusion of action in developing effective local food-focused strategies and solutions (Fesenfeld, 2016). The B.C. Ministry of Agriculture has recognized the complexity of food procurement in schools, given the different forms school food takes and the variability in food availability (Bodnar, 2022). A 2020 provincial

survey identified that schools in B.C. were inhibited by a lack of funding, capacity, and necessary processing/kitchen facilities to support local food procurement (B.C. Stats, 2020). The growing season and availability of diverse local food are also misaligned with the school calendar (Hoyer & Do, 2020). Farmers are similarly met with systemic barriers when selling to schools. Institutional purchasers often have minimum requirements for sale volumes due to bundled contracts and limited budgets that most local farmers cannot accommodate (Reynolds & Hunter, 2017).

Despite these barriers in research and practice, failure to take action to connect local food with the public sector will continue to enable the status quo "... that benefits global corporate food interests and undermines communities" (Sumner & Lapalme, 2019, p.35). The effectiveness of public institutions in procuring local or healthy food is tied to the government's political agenda (Holmes, 2019; Sonnino, Roberta et al., 2008). This is especially clear in the case of school food programs. Countries that have implemented national school food programs, notably Italy (Salvatore et al., 2021), Brazil (Kitaoka, 2018), and the United Kingdom (Nelson et al., 2007), among others (Hock et al., 2022) have been well researched. Incorporating local food into schools has economic (Motta & Sharma, 2016; Roche et al., 2016) and social (Bagdonis et al., 2009) benefits for farmers, students, and the public sector. However, integrating local food into schools is only possible if the food system hosts appropriate local food infrastructure and supportive policies. Supporting the placement of food hubs, conducting community food assessments to identify food assets and gaps are some of the way ways that planners can help strengthen the local food system and enact change (Soma et al., 2021).

Theory of Change for Food System Planning

Transformative incrementalism is a theory of change that can help inform planning practice by understanding social processes (Buchan et al., 2019). According to this theory, transformative change can be achieved gradually and incrementally (Streeck and Thelen, 2005). This challenges the idea that transformation or change occurs as a result of a crisis (Streeck and Thelen, 2005). Most importantly, transformative incrementalism explains the role of power and the need to affect change through "raising awareness, long-term relationship building and education" (Buchan et al., 2019, p. 23). Planning scholars have identified how planners have the agency and capacity to help change systems and relations (Siegel, 2015; Buchan et al., 2019). With respect to supporting transformation toward a more sustainable and equitable food system, it is not enough for planners to simply be impartial and neutral (Vakil, 2009). As Buchan et al (2019) noted, planners can align values and beliefs over time through fostering relationships and partnerships, as well as advocating for change. It is argued in greening cities discourses for example, that even "modest and incremental interventions can have aggregate effects where the whole becomes more than the sum of the parts and hence has important transformative value" (Simon, 2016, p.62).

Transformative incrementalism can be applied to understand the barriers and opportunities in supporting local food procurement for schools due to the central role of power. For example, progress in establishing cohesion on a national level for a school food policy has been slow in Canada. While the B.C. government in their Budget 2023 committed to $214 million over 3 years to expand existing school programs, without cohesion across different levels of government, school meal programming in B.C. has been offloaded onto school districts, some of which may be underfunded or under-equipped, and thus

having less power (Bodnar, 2022; B.C. Ministry of Finance, 2023). This dispersal of accountability results in school procurement programs that are fragmented in funding, execution, tracking, and reporting across the province, and may not necessarily benefit the local food system and producers (Bodnar, 2022). While there is a growing body of studies on school foods, current research on local food procurement in schools often lacks the perspective of farmers (for an exception see Ruetz, 2022) and have not considered the role of planners. This is especially concerning, given their critical role in the food system and the potential benefits of connecting farmers with public sector purchasers such as schools (Berti & Mulligan, 2016). The success of procuring local food in schools relies on the capacity of local growers to supply food and to have an enabling environment both spatially and policy wise to thrive. In both cases (policy and spatially), planners have an important role to play.

Transformative incrementalism may also help explain the social processes necessary for planners to better understand how to create an enabling environment for producers -especially in the ALR- to harness the economic development opportunities to connect local food procurement in schools. In a study on post-harvest loss in B.C. farms, it was found that farmers depend on selling to the major five retailers and seek to explore alternative opportunities such as supplying food for schools and public institution (Soma et al., 2021). Planners can enable these opportunities by connecting relevant stakeholders, such as farmers in the ALR with schools.

Methods

Spatial and Policy Research Context

The spatial scale of this study focused on the main farming regions in B.C., primarily, but not limited to the B.C.'s Agricultural Land Reserve (ALR) scope. The Agricultural Land Commission (ALC) Act has three primary purposes:

> to preserve the agricultural land reserve;
>
> to encourage farming of land within the agricultural land reserve in collaboration with other communities of interest;
>
> to encourage local governments, First Nations, the government and its agents to enable and accommodate farm use of land within the agricultural land reserve and uses compatible with agriculture in their plans, bylaws and policies (Agricultural Land Commission Act [ALCA], 1973, c 46).

The ALC is an administrative tribunal independent of the provincial government and responsible for upholding the Act's purposes (ALC, 2022). ALC staff are responsible for analyzing policy, reviewing regional planning directives, and engaging with local governments to align with the Act (ALC, 2022). Under this Act, less than 5% of B.C.'s land base is zoned under the ALR, and only 1.1% is categorized as prime agricultural land suitable for a wide range of crops (ALC, 2022).

Prime farmland within B.C. is concentrated around dense population centres, namely Metro Vancouver, Victoria on Vancouver Island, and Kelowna in the interior region (Eagle et al., 2015). Utilizing less than 3% of the provincial land base, the production of over 200 agricultural products contributed $2.1 billion CAD towards the province's GDP in 2021 (Ministry of Agriculture, 2022). B.C.'s agricultural sector is the most diverse in the country, allowing for the production and exports of dairy, poultry, greenhouse vegetables and floriculture, and fruit (Ministry of Agriculture, 2022). Therefore, farmland preservation under ALR zoning in the province has proven economically paramount.

In recent years, farmers and planners have identified gaps and barriers within the ALC Act that hinder the original intent of encouraging farming. Tensions have arisen from challenges with the ALC regulating unauthorized land use, agri-tourism needs, subdivisions, and unauthorized fill (Doherty, 2022). In 2018, B.C.'s Ministry of Agriculture expressed its commitment to revitalizing the ALR and ALC through public consultations with stakeholders, farmers, ranchers, and the public (ALC, 2019). These consultations outlined policy priorities, emphasizing B.C. farmers' needs for stronger, place-based local economies, and interest for the provincial government to promote F2S programming and procurement (ALC, 2019). These policy directives were later acted upon, as both the B.C. Minister of Education and B.C. Minister of Agriculture included directions to advance local school food programming in their 2020 mandate letters (The Coalition for Healthy School Food, 2020).

Sampling, Recruitment and Data Analysis

The study secured research ethics approval from Simon Fraser University's Research Ethics Board. From September 2021 to March 2022, 21 semi-structured key-informant interviews were conducted with farmers, food growers, planners, educators and non-profit administrators, and government employees working within B.C. (see Figure 1 for a breakdown of the interviewees). Some interview

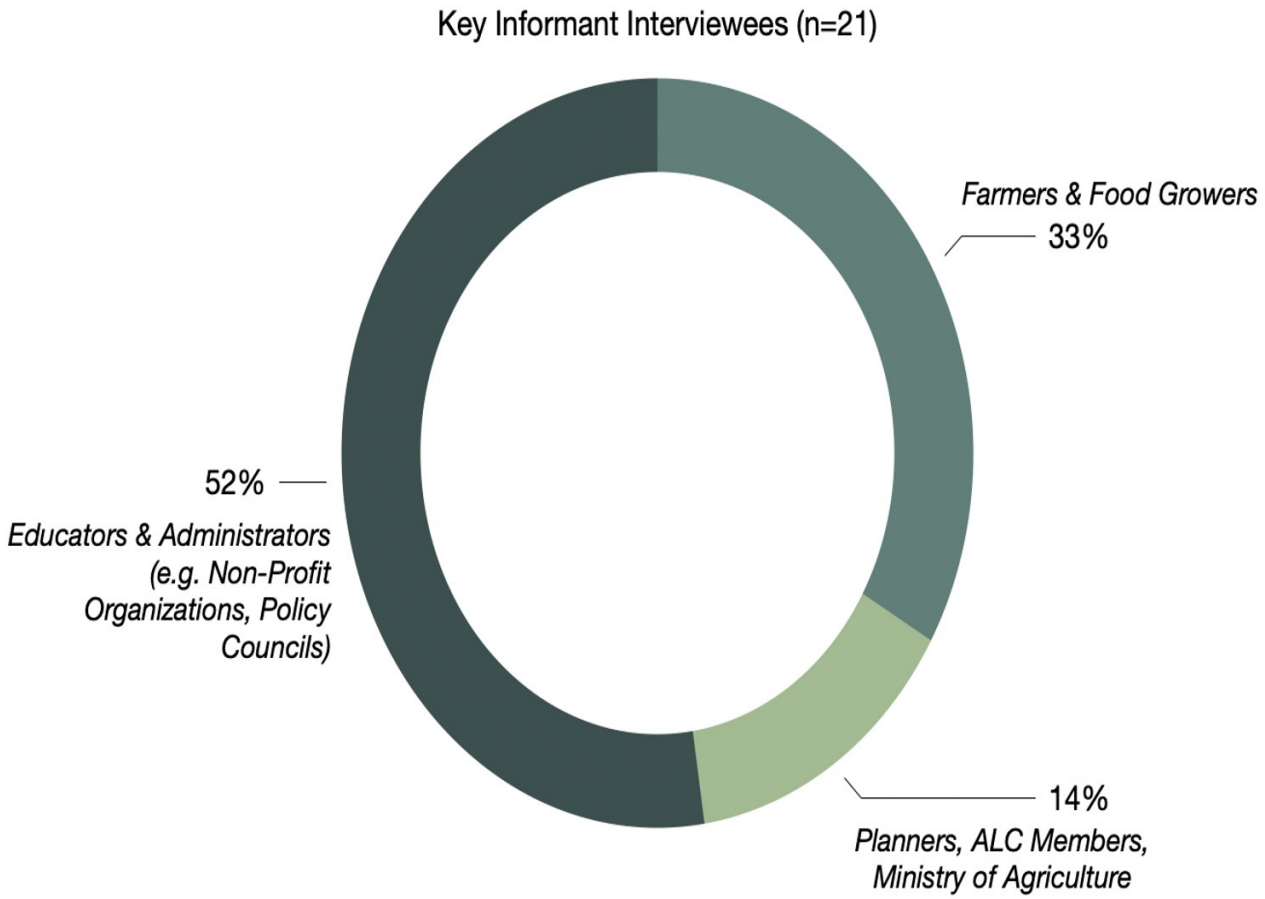

Figure 1. Sector grouping of interviewed participants (n=21).

participants also had overlapping work and volunteer experience in these professions. To determine the interviewees, a list was assembled in collaboration with Public Health Association of British Columbia to identify potential participants already working in agriculture, and some who have made efforts to integrate local food into school meals in the province through the F2SBC program.

All interviews were conducted and recorded online over Zoom and lasted between 1 to 2 hours. Participants were offered a $30 honorarium for their time. There were three sets of scripted questions: farmers and food growers (see: Appendix A), B.C. planners and policymakers focused on agriculture (see: Appendix B), educators and administrators in the non-profit sector (see: Appendix C). The questions catered to the interviewees' professions to understand better their perspectives on the barriers and opportunities for scaling up F2S procurement for farmers on the ALR. Once recorded, the interviews were transcribed through Otter.ai software and analyzed through the qualitative software NVivo. These transcripts were coded into themes (e.g., barriers and opportunities) and sub-themes based on relevance to the two guiding research questions (De Wet & Erasmus, 2005). The analysis of themes and direct quotes of interviewees was compiled in the findings section of the following chapter.

Limitations

Due to the spatial scale of this study, the number of key informants (n=21) is not representative of the entire province's perspective of farmers, planners and non-profit administrators on F2S procurement. To mediate this limitation, an additional literature review was conducted on food system planning and current practices in B.C. and trends and challenges around agriculture in the region.

A second limitation was that the farmers and food growers interviewed operate in the peri-urban area and are smaller-scale organic farms in the southwest region of the province. Additionally, not all farmers interviewed grew food in the ALR or owned the land they grew on. Furthermore, this demographic of farmers is not representative of the diverse agri-sector throughout the province. Therefore, opportunities to further this research should seek to incorporate farmers' perspectives from all growing regions in the province that grow on different scales and crops.

Given the limited timeline and budget of this research, Indigenous food systems and food-growing practices in B.C. were not incorporated into the scope of this paper. The intention of limiting the scope of the study to farming in general was to avoid co-opting and homogenizing the diverse Indigenous knowledge into this study. However, recognizing that over half of the ALR exists upon unceded Indigenous land is important. Further research should be conducted inter-governmentally with Indigenous communities.

Findings

The findings from this study illustrate the complexities of planning-related barriers and opportunities to scale up local food procurement in F2S programming, while also providing insight into barriers (see: Current Barriers section) and opportunities (see: Current Opportunities section) from the perspectives of the interview participants, namely farmers, non-profit intermediaries, and planners. Figure 2 highlights the main themes on both barriers and opportunities from the interviews. While the focus of interviews was to identify planning -related barriers and opportunities, not everything identified in the findings is exclusively under a planner's jurisdiction, but may be insightful for planners who may be supporting consultation process in agri-food economic development opportunities. These complexities are elaborated in the discussion section.

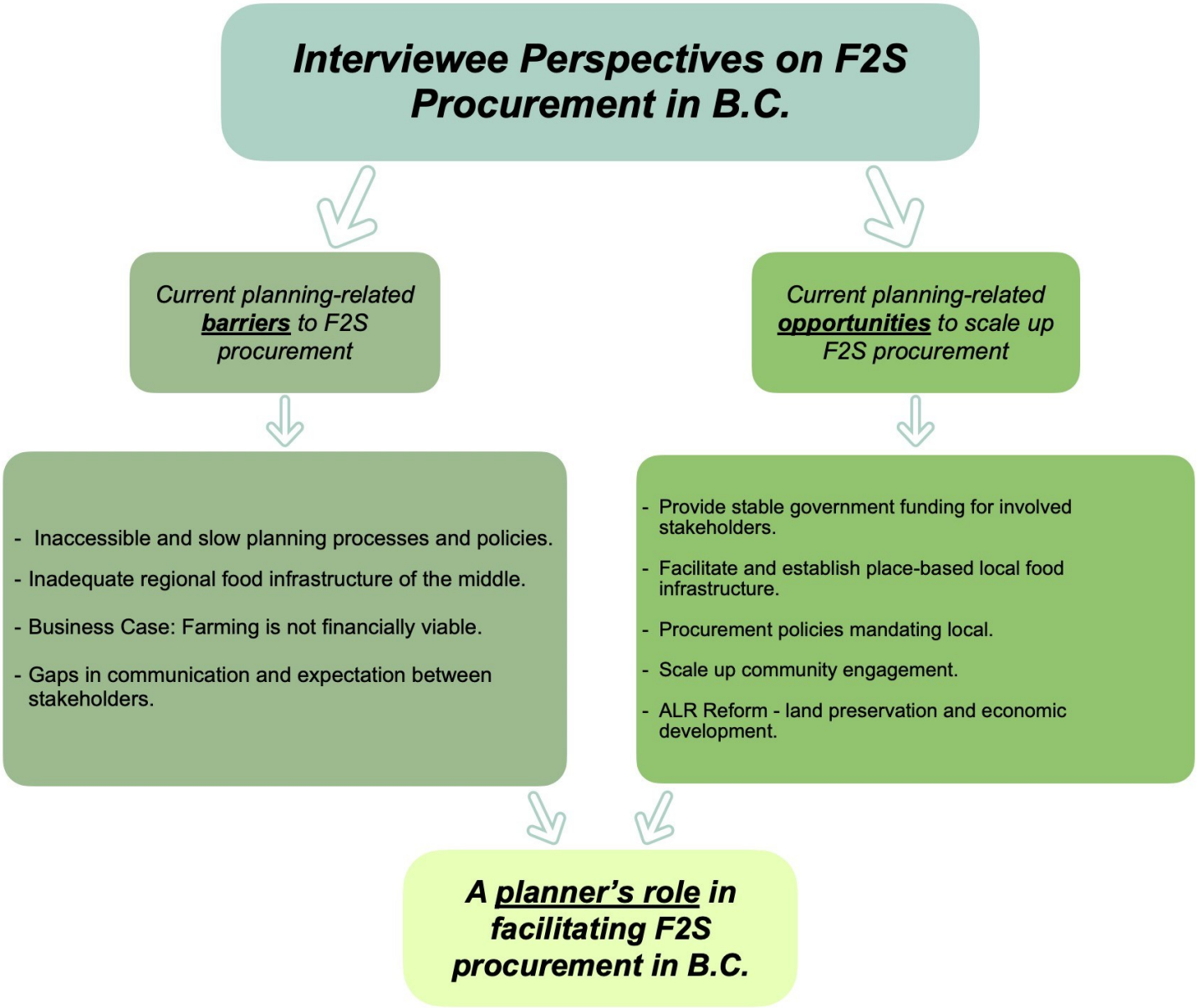

Figure 2. Coding of Themes From Interviews.

Current Barriers

Inaccessible and slow planning processes and policies

Farmers felt that the planning consultation process and general engagement from the Agricultural Land Commission (ALC) were lacking. Given that not all interviewed farmers were landowners, they had often been neglected from consultations. For example, one farmer who was leasing land had experienced both a lack of capacity to engage and exclusion on the principle of land ownership:

> "...planning processes are difficult for farmers to engage in based on timelines and level of commitment and can be frustrating when key stakeholders are not well engaged in those processes. And often, when the ALC considers who is a

> farming stakeholder, I think most of their access to who would those people would be is through land ownership. So I also wasn't in a position of land ownership, like we weren't considered farmers under B.C. assessment" (Farmer 6)

Regulations affecting those who were farming on ALR land also impeded farmer's abilities to build on-site infrastructure, such as additional housing for farm workers to support food production:

> "And not having access to housing for labour can be the limiting factor for many small scale farms in the ALR. So on our farm, we have two houses, we have one for us, and we have farmworker housing. So in 2017, this was not something that the ALC was really happy to hear. They really want to try and limit houses in the ALR. It takes land, obviously, to build a house. It increases the land value, which makes land then even more unaffordable for future generations - when you build permanent structures on properties. So there's that dance that has to happen between [the desires of the ALC and the] need for people." (Farmer 1)

Lastly, economic incentives associated with ALR land, namely through farm tax receipts, are considered insufficient to motivate food growing on the zoned land. More nuance is later discussed regarding ALR land being used "inefficiently" and falling prey to a speculative real estate market (see: Business Case: Farming is not financially viable section). This non-profit administrator involved in food policy work outlined a recurring disappointment in the current policies' abilities to incentivize food growing on ALR land:

> "...so, agriculture policies, in my opinion, need to be insanely tightened up. And there is no incentive besides stupid farm tax receipts, which is only $10,000 a year, it's just not enough. And there's nothing forcing people to get land in production." (Non-Profit Administrator 6)

One farmer expanded on this and also noted that although ALR land intended to give restrictions so only farmers would want to access it, the economic value of land in the province overpowers this.

> "...the ALR doesn't really mitigate to a strong enough degree, like a difference in prices between properties that are in the ALR or properties outside. So the intention was that ALR land should have all these restrictions on it so that it is maintained as farmland, which in theory should make it cheaper, because only farmers would want to access it. But that's obviously not the case on the west coast. So that was our biggest challenge being farmers." (Farmer 6)

Inadequate regional food infrastructure of the middle

Stahlbrand's (2016a) 'missing' middle identifies both the hard and soft food infrastructure required to support small to mid-scale farms and the local food infrastructure (LFI). On both ends of procuring food, the purchasers (schools) and farmers felt that navigating the logistics of storage, transportation, and food delivery was unrealistic due to a lack of capacity. A farmer felt the absence of LFIs inhibited the scale at which they could grow food, and in turn, affected the amount of on-farm income:

Figure 2. Coding of Themes from Interviews.

> "...even if we wanted to grow more food, there's not enough of a market regionally to sell that food and the transportation distribution network is a challenge ...so we're growing on only on a fraction of our land." (Planner and Farmer 4)

Non-profit intermediaries have had to step into this role of facilitating the procurement of local food in schools, which served as a form of "social infrastructure." To fill in for the missing infrastructures, school procurement initiatives have been offloaded onto volunteer food champions and non-profits, both of which are constrained by inconsistent and minimal grant funding. The lack of hard and soft infrastructure in the province to connect food between growers and schools as purchasers is a significant barrier.

Business Case: Farming is not financially viable

According to Farm Credit Canada, a farm property that would be worth $6400 an acre in 2020 is valued at $8165 as of 2023 (Mitham, 2023). Interview participants not only felt that purchasing land was expensive but also that farming was not financially viable due to the high cost of inputs. For example, operating a farm on rented land is precarious for farmers, who are subjugated by the choices of their landlords. Farming under short-term leases in speculative real estate markets inhibits the long-term business investment and land planning potential, and the ability to acquire bank loans (Tatebe et al., 2018). An interviewee, working as a farmer, planner, and food policy member, illustrated the implications of real estate speculation:

> "... but a lot of our ALR lands are still not farmed. So even though they're held for agriculture, they're not being productively farmed for a number of reasons. One is land speculation. Folks are speculating on the value of that land for something other than agriculture. There's also positive tax breaks for property owners if they can get farm status by putting a couple cows on the piece of land and that kind of thing. So we still have agricultural land that is preserved for agriculture, but it's not really actively being used for farming. And that ties into land value and all kinds of other issues." (Planner and Farmer 4)

The speculative nature of farmland in B.C. also shines a light on the policy limitations of the ALC Act. Though farmland was preserved, the regulations and incentives have resulted in unintended outcomes under the current real estate market. Participants felt the ALR land in their communities is inadequately and inefficiently used for food production. Farmers also stressed the financial risk of engaging in the potential scaling up of F2S programming. With government or non-profit interventions like food hubs, farmers expressed a lack of trust and capacity to engage in consultation processes:

> "...it takes commitment from everybody to get it going and functioning and that's always the hard part versus getting the initial commitment to see if the system is going to work. Because for farmers, when they're on such small pieces of land in such tight margins, it's like, you look and you're like, I can't commit to that, like, I want to see that it's functioning before I commit, you're like, but I can't make it function unless you provide me with something to sell to them. So it becomes this, like, who's going to take the risk?" (Farmer 6)

Without evidence or trust that the market stream in schools is viable, collective buy-in from farmers

already operating on these tight margins will be unlikely.

Gaps in communication and expectations

Disparities were identified among the stakeholders involved in the information and logistics required to grow, transport, and process food. Confusion around seasonality, minimum orders, and deliveries led to inaction. Due to the lack of government and public policy oversight, stakeholders noted diffused accountability to initiate enabling F2S school food programming:

> "I think, with food programs, in general, it doesn't fit squarely into any, like, into a school, into the school districts kind of pot where their role is to educate, right? Or into local government's pot of responsibilities. Like when you look at food systems from a policy lens (...) there's actually a really helpful resource that looks at how each layer of government's policy could support food systems. But (...) there's nothing that in the school district that specifically says you need to support food systems or food systems education (...). So it's always a frustration, because (...) people tend to be like that somebody else's responsibility." (Non-Profit Administrator 1)

Additionally, mismatch in expectations was also identified:

> "(...) If you do want to work with farmers, we're not Sysco. You can't just call us up and say, hey, I want 60 heads of lettuce on Thursday (...) I'm [already] taking those heads of lettuce to the market because that's where my customers are. And if I just don't show up with lettuce this week, then they're gonna think there's no lettuce at the market anymore. So you got to let me know four months ago (...). Bigger organizations faced with procurement that want to support local production, but then [you hear from them] "but they [local farmers] didn't have what I needed." (Farmer 3)

The limited institutional capacity within schools was further evidenced in their reliance on large-scale food suppliers (e.g., Sysco). Due to a lack of funding and capacity to navigate the variabilities associated with local food purchasing, schools would choose an established company and a lower-cost option, "... when push comes to shove, we will go towards those larger operators [e.g. Sysco] rather than purchasing local food." (Non Profit Administrator 5)"

Current Opportunities

Despite experiencing barriers, stakeholders still believed in the value of local food in schools. Hosting many social, economic, and environmental development opportunities, local food procurement was seen as an invaluable driver to strengthen local food systems.

> "I think that there's a real danger in a missed opportunity around this (...). In British Columbia, in particular, we have the opportunity to be tapping into local food (...) if we're able to couple that out with a local procurement initiative, that is going to be so much more powerful for our economy (...) there's the health outcomes associated with that better food, the economic outcomes, and also all of those intricate and relational pieces tied to that, that help move our whole

> food system development forward." (Non Profit Administrator 10)

Provide stable government funding for involved stakeholders

The farmers and other participants interviewed generally felt that to scale up procurement of local food effectively, stable and ongoing government funding would be required to navigate the barriers discussed. In tandem with opportunities for mandated procurement policy, ensuring a portion of the school budget funding is allocated to purchase and prepare local food was identified as needed support:

> "I think there also needs to be financial support for the procurement role, or for school budgets to source locally, local ingredients. So that's the other role the government needs to take. So taking that taxpayer money, and putting it back towards food that supports the local economy by buying it locally." (Farmer 3)

The province supports land access through their B.C. Land Matching Program (Young Agrarians, n.d.). Funded by the provincial government, this free program connects landholders to farmers-to-be, supports the development of mutually beneficial lease agreements, and alleviates some of the concerns around land access (Non-Profit Administrator 8).

When considering opportunities, stakeholders felt that government bodies should provide stable and ongoing funding to establish effective, appropriate place-based interventions as opposed to conventional short-term grants that perpetuate reliance on volunteerism and consequent burnout (see: Gaps in Communication and Expectations section):

> "I guess the government role I think would be to sort of like provide sustained ongoing funding to diverse place-based program.... And I think that there's also a huge risk in having these like one off 12 month, granting like pilot projects, you know, where, like we want, we want to see something innovative and new, and then you start something, and then it stops after a year because there's not ongoing funding." (Food Policy Member 3)

Facilitate and establish place-based local food infrastructure

In parts of the province, there have been promising initiatives to develop local food infrastructure as incentivized by the provincial government (B.C. Ministry of Agriculture, n.d.). Namely through food hubs, these interventions have sought to provide local farmers with the logistics of facilitating sales, aggregating and distributing food, and providing post-production facilities. The provision of large orders associated with F2S procurement requires specific infrastructure to facilitate distribution and sales (see: Inadequate regional food infrastructure of the middle section). Planning for local food infrastructure to be streamlined, adaptable to varying needs, and in a central location was an identified opportunity:

> "These hubs that we're talking about, they can initially be virtual, because much of this coordination can be done either via zoom or electronically, but there will come a time when a physical location is needed to aggregate product. So, planning around where can this exists, ideally, it should be in a core central area, so that the distribution can then move outward from there. So don't

> put us like way in some industrial zone (...) food hubs need to be in centralized locations where all of us can be seen." (Farmer 1)

A farmer made a case for this infrastructure to be a central, publicly funded, community asset to aid in navigating the barriers:

> " (...) When it comes to the actual physical location, food hubs really should not be paying rent. Like it makes no economic sense if they have to pay rent on top of trying to do much of this, which is, not many schools have that payment model, right. So funding is going to have to come from some other areas. This needs to be public land and it needs to be publicly funded. Because this is a community asset that we're building. We're building both physical assets as well as social capital." (Farmer 1)

Procurement policies mandating local

Participants felt that policy interventions were a needed tool in scaling up F2S programming. The policy was seen as an effective tool in mandating a certain percentage of procured school food be local:

> "The first one would be that policy piece, yes, make it a requirement that you buy, (...) if government can do more than that, they can also enact policy that says, 'this much of your budget goes to food'. And then also keep in mind that the schools don't have a huge budget to begin with. You also make sure that you're valuing the way the school can spend their money, and then also valuing the food that's coming locally." (Farmer 3)

Enacting this policy mandate will require additional support and funding for school budgets, as well as a defined understanding of 'local' (see: Plan for complexity through policy section). Land-use and zoning were also identified as a more direct opportunity for planners to support. Mandating and establishing on-site or proximate food growing facilities illuminates how flexible and place-based connecting farmers to school food programming can be:

> "... I want to also focus on the importance of that, not just about mandated purchase of food, but mandated local food production closer to schools. So I know that we locally have a Farm to School opportunity, amazing joint partnership, where a school field is being used to be farmed on. And that will become an agricultural example" (Non-Profit Administrator 5)

Scale up community engagement

The role of planners was especially evident in the need for community engagement, mobilization, and networking and also policy development. The success of currently operating school food programming required engagement from all stakeholders from their inceptions:

> "... I think it's really important that all of those people [students, public, staff, all levels of staff at school districts, community groups] are part of the conversation as well as experts in the industry (...) That everyone's part of the conversation from the start, and not partly..if I think about the ones that were the most successful, when you start to consider what this looks like as first steps, it's the ones that were people

> focused, people centered, and student centered, the students, they're the users, they should be part of the conversation." (Non Profit Administrator 6)

Effective engagement was suggested to be enhanced by implementing food asset mapping (Soma, Shulman et al., 2022) around schools to identify gaps in infrastructure and proximity to food growing spaces:

> "... how can we do asset mapping around each school, or each farm ... how many schools fall within that farm radius that these schools can access? And if an existing operational farm isn't within that school's area, how can we support them (...) so that food can actually be connected to those educational systems and to those kids." (Non-Profit Administrator 5)

ALR Reform - land preservation and economic development

Land zoned under ALR was seen both as a barrier (see: Gaps in communication and expectations section) and an opportunity for improvement. Farmers interviewed believe that governments had deprioritized agriculture and farmland protection. As planning priorities shift to other forms of development, protected agricultural land is increasingly important to ensure the viability of local food procurement:

> "I think that the opportunity is that there still are stronger protections being in the ALR then there are other non-ALR land pieces and the existence of the ALR also pushes municipalities to continue to maintain agricultural land zoning. The acknowledgment more recently that the ALR needs to be changed in certain ways that sort of allow for succession planning and new generations of farmers to access land (...) It provides a level of recognition within policymakers of the importance of farming in the community, not only at the provincial ALC level, but also municipally." (Farmer 6)

Since the initial effort to protect land and encourage agricultural production, there has been a perceived stagnancy in how the land is used and occupied to support more farming. At the time of the study, participants believed the ALC was a non-productive avenue to express and navigate their needs. Interviewees were clear that the zoned land under ALR was valuable, and equally needed a change to better suit the needs of the incoming generation of farmers trying to access the land for its intended purpose.

Discussion and Recommendations

Discussion

The findings of this study emphasize the need for cohesive multi-scale action from local governments, including planners at the regional and provincial level, farmers, schools, and involved organizations in response to the potential national school food policy and the B.C. governments' investment in school food. Since the beginning of this study in 2021, political will and legislative change have been underway in the province, notably about the identified barriers related to land-use regulations and on-site housing (see Inaccessible and slow planning processes and policies section). Barriers and opportunities determined in this study were similar to the findings conducted by the Ministry of Agriculture between 2018-2019 (ALC, 2019) based on surveys and in person engagement with

stakeholders. According to the report, it is important to reduce regulatory burdens that impact family farming operations, and to identify businesses opportunities within the ALR (ALC, 2019) of which school food programs would be an alternative to the large retailers. Since the publication of the report, legislative amendments have been made to the ALC Act to permit on-site housing flexibility in response (Townsend, 2021). These amendments under the ALC's revitalization are promising and address direct concerns identified in this study. Other concerns raised, however, are complex and cannot be remedied by legislative changes alone.

The 2019 report by the Ministry of Agriculture additionally emphasizes farmers' interest in supplying for government-assisted school food programs, directly identifying government institutions (e.g., schools) as an economic development opportunity (ALC, 2019). As school food gains political traction at the federal and provincial levels, a policy window at the local level is opening. Planners within the province working within relevant ministries and agricultural planners are positioned with tools to connect schools and youth to growers and their local food. In undertaking a food systems approach, scaling up F2S procurement can assert the legal right to food and reduce food loss due to stringent retail aesthetic standards (Soma et al., 2021), establish resilient local food economies, and lay the foundation for food-sovereign communities.

The second question examined the role of planning and planners in facilitating local food procurement in schools. It is important to note that local food procurement through a food systems framework will not eliminate the inequities and control perpetuated by the identified corporate sphere's dominating power over food. The element of power is something that has been identified by the theory of transformative incrementalism (Buchan et al., 2019) and requires planner's engagement to shift values over time. As Buchan et al (2019) noted, a planner with the explicit goal to connect and support local food procurement should be engaged with the public and form partnerships. The following section highlights key recommendations based on the findings and identify the various ways that planners can play a role in F2S.

Plan for access through infrastructure and zoning

Through land-use planning and zoning, agricultural and municipal planners have a tool to encourage and facilitate F2S procurement proactively. Agriculturally zoned land has proven critical in the province to protect arable land (Nixon & Newman, 2016; Connell, 2021). Findings from this study, however, reaffirmed that protection of land without additional support is inadequate. To meet schools' demands and minimum orders, stakeholders emphasized the need to establish local food infrastructures through food hubs, processing facilities and storage space (see: Local food infrastructure and public procurement section). These spaces are part of the missing infrastructure of the middle (Stahlbrand, 2016b) that require further investments. A study in norther B.C found that infrastructure like food hubs can address multiple community needs by optimizing collaborative opportunities amidst limited resources (Healy, Callihoo and Booth, 2023).The B.C. Ministry of Agriculture has established programs (Feed B.C., Grow B.C., and Buy B.C.) to support this infrastructure and social networking. Within Feed B.C.'s program, the provincial government has established the B.C. Food Hub Network (B.C. Ministry of Agriculture, n.d.). Under this network, twelve communities across the province have established shared storage, processing, and aggregation space. Additionally, within these programs, a provincial directory of local producers, distributors and buyers was created to aid in scaling

up social networks and infrastructure (B.C. Ministry of Agriculture, n.d.).

Most initiatives under these programs are established and operated predominantly by non-profits. The participants interviewed felt this infrastructure was unsustainable due to short-term non-profit funding allocations, often dependent upon volunteers and under-waged food champions. An alternative to this was identified through municipalities establishing this infrastructure as a publicly funded community asset. Planners can support the establishment of publicly funded LFIs through municipal tools such as amending zoning bylaws to encourage food growing, warehousing, and storage facilities (Buchan et al., 2015). Organizations (e.g., non-profits) to coordinate and establish LFIs can be supported by planners through rent subsidies, facilities, granting licenses, and publicizing LFIs initiatives (Buchan et al., 2015).

Plan for complexity through policy

The study's findings also emphasized the importance of social planning practices in connecting a broad network of stakeholders to identify capacities, barriers, assets, and long-term goals of communities seeking to scale F2S procurement. Participants identified the value of municipal and regional planning policy interventions and stakeholder participation in scaling up F2S procurement. Food policy has historically been purview at the provincial and federal levels, thus distancing the control of how communities grow and access food. These policies additionally blur the mechanisms and limit resources for municipal and regional governments to intervene in their food systems (Brynne, 2018). Through policy design and implementation, planners, in partnership with the aforementioned invested parties, can creatively infuse a food system approach into their community (Hansen & Tatebe, 2020).

Planners can also navigate the complexity of food systems through policy design and implementation through embedding food systems into comprehensive strategies like official community plans (OCPs), neighbourhood plans, or food charters (Buchan et al., 2015; Hammer, 2004). In addition, public institutions purchasing local food can be directly mandated through procurement policies (Buchan et al., 2015). Some of the barriers identified in this study such as rigid contracts, seasonality, and the need for economic development opportunities for farmers can be addressed by creative municipal procurement policies. For example, since 1995, Brazil's Programa Nacional de Alimentação Escolar (PNAE) remains one of the oldest and most comprehensive universal school feeding programs (Sidaner et al., 2013). With federal funding, municipalities are responsible for coordinating school food programs (Kitaoka, 2018). Local procurement is mandated in this funding, requiring municipalities to purchase 30% of food from local farms (Sidaner et al., 2013). Farmers can access annual growing contracts of R$20,000 through this funding, and get further economic incentives to farm with organic or agroecological growing methods (Guerra et al., 2017). This example demonstrates the importance of policy cohesion, strategic planning and support at all levels of government to ensure place-based F2S programming that mandates local food procurement in providing stable, ongoing economic development opportunities for local farmers.

Through food policy councils, municipal planners can potentially respond to the barriers of disconnection in communication and expectation among communities seeking to scale F2S procurement. In designing policy informed and guided by communities, planners can look to create or work alongside pre-existing food policy councils on municipal and regional scales. Food policy councils, which often include planning

representation, have been identified as effective tools to garner community knowledge, identify needs, set goals and strategies, and recommend and coordinate direct food policies regarding institutional procurement(Roseland, 2012). Furthermore, cohesion on municipal and regional levels enables collective values to inform larger governing bodies like the ALC and provincial or federal policies (Harper et al., 2009).

Plan for data collection through multi-dimensional metrics

Mandating percentages into policy has proven effective. However, recording, tracking, and reporting are other important components of policy processes and program implementation that are often overlooked. Data on local food procurement supports engagement of stakeholders and strategic decision makers to enable further progress, ensuring the longevity of institutions purchasing local food (Reynolds & Hunter, 2017). For example, local food procurement was directly legislated into Illinois' Local Food, Farms, Jobs Act of 2009 (PolicyLink, 2015). When legislated, a goal was set that by 2020 public institutions would be legally required to procure 20% of food from local farms and food products (PolicyLink, 2015). This Act, which impacted the state level (similar to a provincial level in B.C.), also required that food procured be recorded and tracked to ensure a set percentage of funding from the government budget. On a municipal scale, the Vancouver Greenest City Action Plan maps food assets (e.g., farmer's markets, community gardens) to track their progress (Hansen et al., 2020). Food asset mapping was identified as a potential opportunity (see: Scale up community engagement section) for planners to support community-driven data collection in identifying gaps in the infrastructure needed to implement local food procurement for schools. A study conducted by Soma, Shulman et al. (2022) on food asset mapping highlights how under-represented, and primarily Indigenous community voices are often neglected in these processes. Planners utilizing food asset mapping must undertake a "more inclusive, equitable, and intersectional approach (...) to ensure food system resiliency, Indigenous food sovereignty, and better food accessibility" (Soma, Shulman et al., 2022, p. 336).

Plan for cohesion and collaboration

Planners at municipal and regional scales will undoubtedly be met with complexity in attempting to scale up F2S procurement in the province. Examples of existing effective interventions have required creative, place-based, multi-sectoral planning collaboration that crosses jurisdictional boundaries. The City of Nelson provides an example of extending beyond the boundaries of their municipality to collaborate with surrounding municipalities on food, given their place-based limitations of arable land and infrastructure (Hansen et al., 2020). Collaborative planning efforts led this municipality to amend industrial land-use zoning to integrate better the surrounding need for an aggregation and distribution hub (Hansen et al., 2020). This cross-jurisdictional collaboration will be particularly important in rural and northern communities within the province.

A bioregional lens may also help enhance cohesion and collaboration. Food system planners must balance the bio-physical capacities of the land and the interconnectedness of the communities, networks, and economies existing upon them (Harris et al., 2016). This approach will be both an administrative challenge and a collaborative opportunity to identify the gaps and opportunities available in scaling up procurement. Bioregionalism enables place-based interventions that extends typical policy jurisdictions, and that can be overlooked in municipal food policies and planning (Harris et al.,

2016). At a bioregional scale, planners can also pursue additional capacity-building opportunities through the ALC, notably following its revitalization process initiated in 2018. The ALC's final report following a provincial consultation recommended greater coordination and legal authority to be granted to the ALC in efforts to take an 'agriculture first' approach to the zoned land (ALC, 2019). As the Province navigates implementing these recommendations, municipal and regional planners can work with their respective ALC's geographic region to build capacity across jurisdictions and ensure school food procurement viability.

Conclusion

This study sought to better understand the feasibility of scaling up local food procurement through the perspectives of farmers, planners, and the non-profit sector. It started by identifying the barriers and opportunities to local food procurement for F2S program. It then continued by identifying the role of planning and planners in helping facilitate local food procurement in schools. The findings from this study identified numerous barriers. Farmers expressed frustration with the provincial government's engagement processes around the ALR, frustration around rising land costs due to speculation, and identified a lack of supporting food infrastructure and stable funding in the province that would enable better local interconnectivity within the food supply chain. Issues such as planning processes that did not take into consideration the growing number of farmers who lease but do not own the land may prevent better strategic planning.

There are, however, opportunities for regional, agricultural, provincial, and municipal planners to support a transition toward sustainable and equitable local food procurement. To scale up change, as identified by transformative incrementalism (Buchan et al., 2019), it is important for planners to harness the levers of change, which includes creating a convergence and alignment in values. Opportunities discussed include more investment in place-based local food infrastructure, land matching programs, strategic policies to ensure the integration of a percentage of food be local, scaling up community engagement through capacity building and education, and ALR reform that couple economic development planning with farmland preservation planning.

The second research question focuses on the role of the planners. There are numerous opportunities for planners at all levels of government to support F2S local food procurement both directly and indirectly. These opportunities can be harnessed by agricultural planners, regional planners, municipal planners, provincial planners working within agricultural ministries, and also planners situated within the Agricultural Land Commission. Planners can implement statutory (e.g., land-use zoning and bylaws), strategic policy development (e.g., policies and programming), and social (e.g., policy councils and food asset mapping) approaches. Engaging through food policy councils is another way to build partnerships with stakeholders and align values. Moreover, as highlighted in the discussion, collaborative planning that transcends typical municipal jurisdiction will be necessary considering that food systems differ across municipalities and regions in B.C.

Faced with the longstanding pursuit of a better future, planners enable and support decisions, plans, and community aspirations that extend into multiple spatial and temporal scales on behalf of current and future communities. As articulated by Zapata (2021, p. 641), "[w]hen we make plans, we choose who's futures matter." The procurement of local food in schools within the province will be critical in bridging efforts towards securing Canada's 'right to food' and fostering invaluable linkages between planners, food growers, youth, and the broader community.

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References

Agricultural Land Commission (ALC). (2019). Supporting B.C. Farmers Public Engagement—"What We Heard" Report.

Agricultural Land Commission (ALC). (2022). Provincial Agricultural Land Commission Annual Report 2021-2022 (p. 78). Agricultural Land Commission.

Alam, A. (2014). Soil degradation: A challenge to sustainable agriculture. *International Journal of Scientific Research in Agricultural Sciences, 1*(4), 52.

American Planning Association. (n.d.). APA Policy Guide on Community and Regional Food Planning. American Planning Association. Retrieved November 15, 2022, from https://www.planning.org/policy/guides/adopted/food.htm

Bagdonis, J. M., Hinrichs, C. C., & Schafft, K. A. (2009). The emergence and framing of farm-to-school initiatives: Civic engagement, health and local agriculture. *Agriculture and Human Values, 26*(1), 107–119.

B.C. Ministry of Agriculture. (n.d.). BC Food Hub Network. Government of British Columbia; Province of British Columbia. https://alpha.gov.bc.ca/gov/content/industry/agriculture-seafood/growbc-feedbc-buybc/feed-bc-and-the-bc-food-hub-network/bc-food-hub-network

B.C. Ministry of Finance. (2023, February 28). Budget 2023 takes action on issues that matter most.

B.C. Stats. (2020). K-12 public school food survey (p. 65).

Belasco, W. (2008). Food: The key concepts. Berg, New York, NY.

Berti, G., & Mulligan, C. (2016). Competitiveness of Small Farms and Innovative Food Supply Chains: The Role of Food Hubs in Creating Sustainable Regional and Local Food Systems. *Sustainability, 8*(7). https://doi.org/10.3390/su8070616

Blay-Palmer, A., Landman, K., Knezevic, I., & Hayhurst, R. (2013). Constructing resilient, transformative communities through sustainable "food hubs." *Local Environment, 18*(5), 521–528. https://doi.org/10.1080/13549839.2013.797156

Bodnar, C. (2022). School food programs: Establishing a baseline for BC and Opportunities Demonstrated in Other Jurisdictions. Simon Fraser University.

Born, B., & Purcell, M. (2006). Avoiding the Local Trap: Scale and Food Systems in Planning Research. Journal *of Planning Education and Research, 26*(2), 195–207. https://doi.org/10.1177/0739456X06291389

Britten, L. (2018, May 12). Trash crop: How illegal dumping is ruining B.C. farmland | CBC News. CBC.

Brynne, A. (2018). Working with local government on food policy: A toolkit for civil society. BC Food Systems Network.

Buchan, R., Cloutier, D., Friedman, A., & Ostry, A. (2015). Local Food System Planning. *Canadian Journal of Urban Research, 24*.

Buchan, R., Cloutier, D. S., & Friedman, A. (2019). Transformative incrementalism: Planning for transformative change in local food systems. Progress in Planning, 134, 100424. https://doi.org/10.1016/j.progress.2018.07.002

Caldwell, W. J., Hilts, S., & Wilton, B. (Eds.). (2017). Farmland preservation: Land for future generations. Univ. of Manitoba Press: Winnipeg, Manitoba.

Canadian Food Inspection Agency (CFIA). (2022, July 6). Origin claims on food labels [Fact sheet,guide, reference material]. https://inspection.canada.ca/food-labels/labelling/industry/origin-claims/eng/1626884467839/1626884529209

Canadian Grocer. (2018, February). Annual Market Survey 2017. 26–28.

The Coalition for Healthy School Food. (CHSF). (2020, December 16). BC Government Commits to Bring in Local School Meal Programs. English. https://www.healthyschoolfood.ca/post/bc-government-commits-to-bring-in-local-school-meal-programs

CIP. (n.d.). Canadian Institute of Planners. https://www.cip-icu.ca/

Cleveland, D. A., Carruth, A., & Mazaroli, D. N. (2015). Operationalizing local food: Goals, actions, and indicators for alternative food systems. *Agriculture and Human Values, 32* (2), 281–297. https://doi.org/10.1007/s10460-014-9556-9

Coca, E. L. de F. (2021). Eating and learning about food at school and on campus: Farm to Cafeteria Canada (F2CC) in Metro Vancouver. *Canadian Food Studies / La Revue Canadienne Des Études Sur l'alimentation, 8*(4). https://doi.org/10.15353/cfs-rcea.v8i4.460

Cohen, N. (2018). A case study of East Harlem, New York. *Integrating Food into Urban Planning, 312*.

Connell, D. J. (2021). The Quality of Farmland Protection in Canada: An Evaluation of the Strength of Provincial Legislative Frameworks. *Canadian Planning and Policy / Aménagement Et Politique Au Canada, 01*, 109–130.

Dahlberg, K. A. (2001). Democratizing society and food systems: Or how do we transform modern structures of power? *Agriculture and Human Values, 18*(2), 135–151.

Day-Farnsworth, L., & Morales, A. (2011). Satiating the Demand: Planning for Alternative Models of Regional Food Distribution. *Journal of Agriculture, Food Systems, and Community Development*, 227–248. https://doi.org/10.5304/jafscd.2011.021.020

De Wet, J. & Erasmus, Z. (2005). Towards rigour in qualitative analysis. *Qualitative Research Journal, 5*(1), 27-40.

Eagle, A. J., Eagle, D. E., Stobbe, T. E., & Kooten, G. C. (2015). Farmland Protection and Agricultural Land Values at the Urban-Rural Fringe: British Columbia's Agricultural Land Reserve. *American Journal of Agricultural Economics, 97*(1), 282–298. https://doi.org/10.1093/ajae/aau098

Ericksen, P. J. (2008). Conceptualizing food systems for global environmental change research. *Global Environmental Change, 18*(1), 234–245.

Farm to School B.C. (F2SBC). (2019). 2019 Evaluation Summary Report (p.18). https://farmtoschoolbc.ca/wp-content/uploads/sites/3/2021/07/F2SBC-2019-Evaluation-Summary-Report_online.pdf

Farm to School B.C. (2023). Farm to School BC Regional Hubs. Farm to School B.C. https://farmtoschoolbc.ca/network/regional-hubs/

Fesenfeld, L. P. (2016). Governing Urban Food Systems in the Long Run: Comparing Best Practices in Sustainable Food Procurement Regulations. *GAIA - Ecological Perspectives for Science and Society, 25*(4), 260–270. https://doi.org/10.14512/gaia.25.4.8

Food Secure Canada (FSC). (2011, November 21). The Right to Food in Canada. Food Secure Canada. https://foodsecurecanada.org/right-food-canada

Government of Canada. (2022, November 16). Consultation on building a pan-Canadian school food policy—Discussion paper [Consultations]. https://www.canada.ca/en/employment-social-development/programs/school-food/consultation-school-food/discussion-paper.html

Guerra, J., Blesh, J., Schmitt Filho, A. L., & Wittman, H. (2017). Pathways to agroecological management through mediated markets in Santa Catarina, Brazil. *Elementa: Science of the Anthropocene, 5*, 67. https://doi.org/10.1525/elementa.248

Hammer, J. (2004). Community Food Systems and Planning Curricula. *Journal of Planning Education and Research, 23*(4), 424–434. https://doi.org/10.1177/0739456X04264907

Hansen, E., Robert, N., & Tatebe, K. (2020). A new decade for food planning. *Plan Canada*, Spring, *5*.

Hansen, E., & Tatebe, K. (2020). Planning for Food Systems. Webinar for the Canadian Institute of Planners.

Harper, A., Shattuck, A., Holt-Giménez, E., Alkon, A., & Lambrick, F. (2009). Food policy councils: Lessons Learned. Citeseer.

Harris, C. (2004). How Did Colonialism Dispossess? Comments from an Edge of Empire. *Annals of the Association of American Geographers, 94*(1), 165–182. https://doi.org/10.1111/j.1467-8306.2004.09401009.x

Harris, G., Nixon, D., Newman, L., & Mullinix, K. (2016). Delineating the Southwest British Columbia Bioregion for Food System Design and Planning: A Practical Approach. *Journal of Agriculture, Food Systems, and Community Development, 6*(4), 1–16. https://doi.org/10.5304/jafscd.2016.064.010

Healy, T., Callihoo, C., & Booth, A. L. (2023). Who's at the table: an exploration of community-based food security initiatives and structures in a north-central Canadian context. *Community Development Journal*. https://doi.org/10.1093/cdj/bsad013

Healthy Food Policy Project [HFPP] (2021, September 29). Planning Tools to Increase Access to Healthy Food. Healthy Food Policy Project. https://healthyfoodpolicyproject.org/local-planning-and-the-food-system/planning-tools

Hendrickson, M.K., Howard, P.H., Miller, P.H., & Constance, D.H. (2020). THE FOOD SYSTEM: CONCENTRATION AND ITS IMPACTS: A Special Report to the Family Farm Action Alliance. https://doi.org/10.13140/RG.2.2.35433.52326

Holmes, S. (2019). Food procurement in English-language Canadian public schools: Opportunities and challenges. *Canadian Food Studies/La Revue Canadienne Des Études Sur l'alimentation, 6*(1), 75–99.

Hoyer, G., & Do, C. (2020). Generating Success for Farm to School (p. 222). Sustain Ontario. https://sustainontario.com/custom/uploads/2020/02/Research-Report_Generating-Success-for-F2S.pdf

Idzerda, L., Gariépy, G., Corrin, T., Tarasuk, V., McIntyre, L., Neil-Sztramko, S., Dobbins, M., Gariépy, G., & Jaramillo Garcia, A. (2022). What is known about the prevalence of household food insecurity in Canada during the COVID-19 pandemic: A systematic review. *Health Promotion and Chronic Disease Prevention in Canada, 42*(5), 177–187. https://doi.org/10.24095/hpcdp.42.5.01

Kalfagianni, A., & Skordili, S. (Eds.). (2019). Localizing global food: Short food supply chains as responses to agri-food system challenges. Routledge.

Kitaoka, K. (2018). The National School Meal Program in Brazil: A Literature Review. *The Japanese Journal of Nutrition and Dietetics, 76*(Supplement), S115–S125. https://doi.org/10.5264/eiyogakuzashi.76.S115

La Via Campesina. (2003, January 15). Food sovereignty. Via Campesina English.

Linn, J. (2012). (Ed.) Scaling up in Agriculture, Rural Development and Nutrition; International Food Policy Research Institute Washington: Washington, DC, USA

Mahato, A. (2014). Climate change and its impact on agriculture. *International Journal of Scientific and Research Publications*, 4 (4), 1–6.

Martinez, S., Hand, M., Pra, M. D., Pollack, S., Ralston, K., Smith, T., Vogel, S., Clark, S., Lohr, L., Low, S., & Newman, C. (2010). *Local Food Systems: Concepts, Impacts, and Issues. 87*. https://doi.org/10.22004/ag.econ.96635

Matson, J., & Thayer, J. (2013). The Role of Food Hubs in Food Supply Chains. *Journal of Agriculture, Food Systems, and Community Development*, 1–5. https://doi.org/10.5304/jafscd.2013.034.004

McDonald, S. K., Keesler, V. A., Kauffman, N. J., & Schneider, B. (2006). Scaling-up exemplary interventions. *Educational Researcher, 35*(3), 15-24. https://doi.org/10.3102/0013189X035003015

McMichael, P. (2005). Global Development and The Corporate Food Regime. New Directions in the Sociology of Global Development, 11, 265–299. https://doi.org/10.1016/S1057-1922(05)11010-5

Ministry of Agriculture. (2022). Sector Snapshot 2021: B.C. Agriculture.

Ministry of Finance. (2023, February 28). Budget 2023 takes action on issues that matter most. BC Government. https://news.gov.bc.ca/releases/2023FIN0015-000244

Mitham, P. (2023, March 15). BC farmland values slow. Country Life in B.C. https://www.countrylifeinbc.com/bc-farmland-values-slow/

Mooney, P. (2015). Seedy Characters—From climate crisis to corporate crop control (p. 3). ETC Group.

Morgan, K., & Morley, A. (2014). The public plate: Harnessing the power of purchase. In Sustainable Food Systems (pp. 100–118). Routledge.

Morgan, K., & Sonnino, R. (2008). The School Food Revolution: Public Food and the Challenge of Sustainable Development. Routledge. https://doi.org/10.4324/9781849773256

Motta, V., & Sharma, A. (2016). Benefits and transaction costs of purchasing local foods in school districts. International *Journal of Hospitality Management, 55*, 81–87. https://doi.org/10.1016/j.ijhm.2016.02.011

Mui, Y., Khojasteh, M., Judelsohn, A., Sirwatka, A., Kelly, S., Gooch, P., & Raja, S. (2021). Planning for Regional Food Equity. Journal of the American Planning Association, 87(3), 354–369. https://doi.org/10.1080/01944363.2020.1845781

Nelson, M., Lowes, K., & Hwang, V. (2007). The contribution of school meals to food consumption and nutrient intakes of young people aged 4–18 years in England. *Public Health Nutrition, 10*(7), 652–662.

Nixon, D. V., & Newman, L. (2016). The efficacy and politics of farmland preservation through land use regulation: Changes in southwest British Columbia's Agricultural Land Reserve. *Land Use Policy, 59*, 227–240. https://doi.org/10.1016/j.landusepol.2016.07.004

Otero, G. (2018). The neoliberal diet: Healthy profits, unhealthy people. University of Texas Press.

Pingali, P. L. (2012). Green Revolution: Impacts, limits, and the path ahead. *Proceedings of the National Academy of Sciences*, 109(31), 12302–12308. https://doi.org/10.1073/pnas.0912953109

Pitt, H., & Jones, M. (2016). Scaling up and out as a pathway for food system transitions. *Sustainability, 8*(10), 1025. https://doi.org/10.3390/su8101025

PolicyLink. (2015). Equitable Development Toolkit Local Food Procurement. PolicyLink.

Pothukuchi, K., & Kaufman, J. L. (2000). The food system: A stranger to the planning field. *Journal of the American Planning Association, 66*(2), 113–124.

Qazi, J. A., & Selfa, T. L. (2005). The Politics of Building Alternative Agro-food Networks in the Belly of Agro-industry. Food, Culture & Society, 8(1), 45–72. https://doi.org/10.2752/155280105778055416

Qualman, D. (2017, February 28). Agribusiness takes all: 90 years of Canadian net farm income. Darrin Qualman.

Rantanen, M. (2023, March 3). 150 acres of Richmond farmland removed from ALR for landfill, recycling operations. Richmond News.

Reynolds, J., & Hunter, B. (2017). Purchasing Power: 10 Lessons on Getting More Local, Sustainable and Delicious Food in Schools, Hospitals and Campuses. J. W. McConnell Family Foundation.

Reynolds, J., & Hunter, B. (2019). From contracts to culture: Exploring how to leverage local, sustainable food purchasing by institutions for food systems change. *Canadian Food Studies / La Revue Canadienne Des Études Sur l'alimentation, 6*(1), 8–21. https://doi.org/10.15353/cfs-rcea.v6i1.285

Robert, N., & Mullinix, K. (2018). Municipal Policy Enabling Regional Food Systems in British Columbia, Canada: Assessing Focal Areas and Gaps. Journal of Agriculture, Food Systems, and Community Development, 8(B), Article B. https://doi.org/10.5304/jafscd.2018.08B.003

Roche, E., Becot, F., Kolodinsky, J., & Conner, D. (2016). Economic contribution and potential impact of local food purchases made by Vermont schools. Center for Rural Studies, University of Vermont.

Roseland, M. (2012). Toward sustainable communities: Solutions for citizens and their governments. New Society Publishers.

Ruetz, A. (2022). Canadian School Food Programs and the Prospect of Linking Farms and Schools in Regional Agri-Food Value Chains [Doctoral Dissertation, University of Guelph].

Ruetz, Amberley T; Tasala, Kirsti; McKenna, Mary; Martin, Alicia; Michnik, Kaylee; Edwards, Gabrielle; Engler-Stringer, Rachel; Everitt, Tracy; Maximova, Katerina; Mosby, Ian; Seko, Yukari; Woodruff, Sarah; (2023) School Meals Case Study: Canada. Working Paper. London School of Hygiene and Tropical Medicine, London. https://doi.org/10.17037/PUBS.04671115

Salvatore, F. P., Fanelli, S., Lanza, G., & Milone, M. (2021). Public food procurement for Italian schools: Results from analytical and content analyses. *British Food Journal, 123*(8), 2936–2951.

Sidaner, E., Balaban, D., & Burlandy, L. (2013). The Brazilian school feeding programme: An example of an integrated programme in support of food and nutrition security. *Public Health Nutrition, 16*(6), 989–994. https://doi.org/10.1017/S1368980012005101

Simon, D. (2016). Green cities: from tokenism to incrementalism and transformation. In Simon, D (ed), Rethinking sustainable cities. Policy Press: Bristol, UK, pp. 61-106.

Soma, T., Krishnan, R., & Kozhikode Rajiv. (2021). Tilling food under: Barriers and opportunities to address the loss of edible food at the farm-level in British Columbia, Canada. Resources, Conservation and Recycling, 170, 105571. https://doi.org/10.1016/j.resconrec.2021.105571

Soma, T., Li, B., & Shulman, T. (2022). A Citizen Science and Photovoice Approach to Food Asset Mapping and Food System Planning. *Journal of Planning Education and Research*, 0739456X2210889. https://doi.org/10.1177/0739456X221088985

Soma, T., Shulman, T., Li, B., Bulkan, J., & Curtis, M. (2022). Food assets for whom? Community perspectives on food asset mapping in Canada. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 15*(3), 322–339. https://doi.org/10.1080/17549175.2021.1918750

Soma, T., & Wakefield, S. (2011). The emerging role of a food system planner: Integrating food considerations into planning. *Journal of Agriculture, Food Systems, and Community Development, 2*(1), 53–64.

Sonnino, R. (2010). Escaping the Local Trap: Insights on Re-localization from School Food Reform. J*ournal of Environmental Policy & Planning,* 12(1), 23–40. https://doi.org/10.1080/15239080903220120

Sonnino, Roberta, Morgan, K., & Morley, A. (2008). The school food revolution: Public food and the challenge of sustainable development. Earthscan.

Stahlbrand, L. (2016a). A typology of "infrastructure of the middle" in university food procurement in England and Canada. *Raízes* (Campina Grande, Paraíba, Brazil), *36*(2), 32–46. https://doi.org/10.37370/raizes.2016.v36.457

Stahlbrand, L. (2016b). Short food supply chains and "infrastructure of the middle": The role of university food procurement in sustainability transition. 12th European International Farming Systems Association (IFSA) Symposium, Social and Technological Transformation of Farming Systems: Diverging and Converging Pathways, 12-15 July 2016, Harper Adams University, Newport, Shropshire, UK, 1–14.

Stahlbrand, L. (2017). Can Values-based Food Chains Advance Local and Sustainable Food Systems? Evidence from Case Studies of University Procurement in Canada and the UK. *The International Journal of Sociology of Agriculture and Food*, 77-95 Pages. https://doi.org/10.48416/IJSAF.V24I1.117

Streeck, W., & Thelen, K. (2005). Beyond continuity: Institutional change in advanced political economies. Oxford: University Press.

Statistics Canada. (2021). Farm Debt Outstanding, classified by lender [Data set]. Government of Canada. https://doi.org/10.25318/3210005101-ENG

Sumner, J., & Lapalme, H. (2019). The public plate in the transnational city: Tensions among food procurement, global trade and local legislation. *Canadian Food Studies / La Revue Canadienne Des Études Sur l'alimentation*, 6(1), Article 1. https://doi.org/10.15353/cfs-rcea.v6i1.268

Tatebe, K., Robert, N., & Mullinix, K. (2018). Protection is Not Enough: Policy Precedents to Increase the Agricultural Use of British Columbia's Farmland. Kwantlen Polytechnic University.

Tendall, D. M., Joerin, J., Kopainsky, B., Edwards, P., Shreck, A., Le, Q. B., Kruetli, P., Grant, M., & Six, J. (2015). Food system resilience: Defining the concept. *Global Food Security, 6*, 17–23. https://doi.org/10.1016/j.gfs.2015.08.001

Townsend, D. (2021, July 12). Increasing housing flexibility in the ALR | BC Gov News. BC Government News.

Vakil, T. (2009). Changing public service values: Limits of fundamental reform and rhetoric. University of Victoria (Doctoral dissertation).

Young Agrarians. (n.d.). B.C. Land Matching Program. Young Agrarians.

Zapata, M. (2021). Planning Just Futures—Introduction. *Planning Theory & Practice, 22*(4), 613–642. https://doi.org/10.1080/14649357.2021.1956815

Appendix A. Interview Scripts for Farmers.

1. What role do you have within the food and agricultural sector in B.C?
2. What are your current experiences farming in the ALR lands; can you speak of the overall challenges and or opportunities?
3. Have you ever expressed your challenges and concerns around farming in the ALR to the Agricultural Land Commission (ALC)? If so, please provide examples of your interactions with the ALC.
4. What are the relationships like when it comes to interdepartmental collaboration on GI projects? From your experience, what works well and what could be better?
5. Who do you currently market your food to? (Prompt: who are the buyers?), and what is the estimated percentage of sales to the different market types (e.g. retail/restaurant)?
6. How much edible "imperfect looking" food, that nay otherwise be unmarketable to other buyers, would you estimate could be redirected/sold to schools instead?
7. How familiar are you with the idea of food procurement to that you and other farmers may want to explore
8. Have you ever interacted with schools/universities specific to school food procurement (buying)? If yes, how? If not, why? Please detail.
9. What potential in growth do you see around farm to school food procurement? What do you see are the potential barriers and / or opportunities? Please detail.
10. If farmers would like to participate in direct school food procurement, what should the other stakeholders (e.g. schools, policymakers) need to consider? (Prompt: transportation logistics, crop options/preferences, growing/ seasonal considerations to accommodate a typical school year, minimum orders.)
11. What should be the governments' role/ or community planners' role in enabling and supporting school-related local food procurement / ordering?
12. Is there anything else you would like to share or discuss about farm to school food procurement? If not, what related term do you use as a framework or foundation to your work?

Appendix B. Interview Scripts for Planners, Ministry of Agriculture, and/or Agricultural Land Commission

1. What role What role do you serve within the food and agricultural sector in B.C?
2. What is your understanding of the overall purpose of the Agriculture Land Reserve (ALR)?
3. What is your perspective about the Agriculture Land Commission (ALC) activities as it pertains to supporting agriculture in ALR lands? Are there challenges and / or successes you can share?
4. What do you think is the planners/policymakers' role/ ALC's role in ensuring that farmers thrive economically in the ALC?
5. Are you familiar/ have you seen examples of school food procurement initiatives in BC's ALR or other farm areas? What worked well and what would you like to see improved?
6. There has been a growing interest in school food procurement/ cafeteria procurement across Canada. What do you think are the key components (e.g., planning that factor in meal plans and timing of a typical school year+, transportation, infrastructure, staff, policy, etc.) that are required to support a successful farm to school food procurement program in the ALR?
7. What do you think should be the governments' role/ or planners' role in supporting/scaling up school-related local food procurement markets and economic development planning for farmers in the ALR?
8. What do you think should be the governments' role/ or planners' role in supporting/scaling up school-related local food procurement markets and economic development planning for farmers in the ALR?
9. Other jurisdictions such as Ontario are considering Bill 216, the Food Literacy for Students Act, 2020. Are you familiar with this bill (provide summary if required immediately below) and what are your thoughts on how to enable similar legislation in BC?
10. Is there anything else you would like to share or discuss about farm to school food procurement?

Appendix C. Interview Scripts for Educators and Non-Profit Administrators.

1. What is your current role?
2. What do you think is the role of educators and schools in food-related education, literacy, and food security? Please provide examples.
3. Have you had any connections with local farmers to purchase local food directly, visit farms or other? If yes, please describe.
4. Would you be interested in pursuing purchasing food from local farms and cultivating relationships with local farmers as part of food literacy efforts? If so, what resources and support would you require to explore those opportunities?
5. What do you think is the most significant barrier to purchasing food from local farms for school food programming (e.g., meals, snacks)?
6. There has been a growing interest in school food procurement/ cafeteria procurement across Canada. What are the key components that are needed to support a successful farm to school food procurement program? (e.g., planning to factor meal plans and timing of a typical school year+, transportation, infrastructure, staff, policy etc.)
7. What should be the governments' role/ or school boards' role in supporting/scaling up school-related local food procurement?
8. Is there anything else you would like to share or discuss about farm to school food procurement?

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