

**Farm to School in B.C.: The Role of Food System  
Planning in Facilitating Local Food Procurement for  
Schools**

**Elina Blomley**

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**Name:** Elina Blomley

**Degree:** Master of Resource Management (Planning)

**Title:** Farm to School in B.C.: The Role of Food System Planning in Facilitating Local Food Procurement for Schools

**Committee:**

**Chair:** **Naomi Robert**  
PhD Candidate, Master of Resource and Environmental Management

**Tammara Soma**  
Supervisor  
Assistant Professor, Resource and Environmental Management

**Christine Callihoo**  
Committee Member  
Adjunct Professor, Resource and Environmental Management

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## **Abstract**

The Farm to School (F2S) movement seeks to connect youth with their food system and community. In the emerging field of food systems planning, public institutional procurement through F2S programming also offers a key leverage point to scale up resilient, place-based local food systems. This movement, however, relies on the continuity and sustainability of local food production in British Columbia (B.C.). Provincially, aspects of the food system have been considered through farmland preservation through the Agricultural Land Reserve. In order for planners to sustain local food production, however, preserving farmland is insufficient without the necessary local food infrastructure and economic development planning and support. Planning related barriers and opportunities for F2S procurement are identified in drawing upon key informant interviews (n=21) with planners, farmers, educators, and policymakers. As the federal government rolls out a pan-Canadian school food policy, this research emphasizes the invaluable roles that farmers, public institutions, and planners can play in reimagining a just and sustainable food system transition.

**Keywords:** school food; policy; local food infrastructure; agriculture; food systems

*We have assumed that there is only one way to be in the world – and that way is certain, self-evident and without alternatives, at least to sane, healthy people. We have tried to adopt the language and assumptions of development and progress, to force our eyes to see food as the product of the marketplace, instead of gift; our dreams for meaningful work as empty, if not bottom-lined by the motivation to make money. But there are rumors of ancient futures, and we are beginning to see how this monoculture of mind no longer serves the diversity and expansiveness of human and other-than-human beings; we are seeing how the one usurped the many. We are seeing – like you are – that growth is not enough (...) The call to localize is a response to the poetry of diversity, and coincides with this end of truth, with the refutation of the ‘complete dictionary’ – that system of creeds that once roped us in, and in whose tight wager a beautiful plurality of worlds still struggles for breath. Economic decentralization, driven by the realization that there are many ways of knowing and being in the world, coincides with this planetary urge to play with new forms, to revive the messiness of being alive, to leave the corrupt security of a monologue and venture out into the wildness we once called home. It implies that we are learning to come home to ourselves. The building of a temple without steeples. We are regaining our power, once invested in intergovernmental agencies, trade treaties, nation-states, and trickle-down policies.*

Dr. Báyo Akómoláfé (2014)

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# Chapter 1. Introduction

Food is essential to life and provides a lens into culture, health, economy and environment, as well as how we organize ourselves in societies more broadly (Belasco, 2008; Blay-Palmer et al., 2021; Coca, 2021). When exposed at its root, dominant food growing practices (i.e., large scale monoculture agriculture) display a concerning relationship established on the commodification of the earth, soil, plants, and people. Neoliberal globalization has effectively forced the global population to rely on this scaled up agricultural food production 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 necessary for transportation, distribution, and consumption followed suit, establishing the corporate food regime (McMichael, 2005). In 2020, 10% (69 Mt CO<sub>2</sub> eq) of Canada's total greenhouse gas emissions were attributed to solely agricultural crop and livestock production, not including emissions from fossil fuel or fertilizer production (Environment and Climate Change Canada, 2022). The shift to high-input globalized agriculture has produced a consolidated and industrialized agriculture economy reliant on high emissions and aggressive federal export-oriented policies to maintain the siloing of food as a commodity (Fenton et al., 2021).

The corporate food regime infringes on the needs of present and future generations. 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). Canadian farmers are caught in indebtedness within this consolidated and volatile market. The most recent agricultural census identified over 115 billion dollars in collective farm debt (Statistics Canada, 2021). This is further evidenced by a 2016 analysis that showed that agri-food corporations (e.g. Monsanto, Agrium, John Deere, Shell) capture 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. The COVID-19 pandemic has exacerbated this, elevating food insecurity in Canada (Blay-Palmer et al., 2021; FAO, 2020). A 2020 study confirms this, with one in seven Canadians (15%) experiencing 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 is legally contradictory on the global stage. As a signatory under the United Declaration of Human Rights, the Canadian government has a legal obligation to ensure the right to food (Food Secure Canada, 2011). According to the right to food approach, the government should ensure that everyone has ongoing available, adequate, and accessible access to food through the land or through ensuring people's livelihoods to purchase and or grow food (Food Secure Canada, 2011).

To address this federal governmental policy failure in British Columbia (B.C.), Farm to School B.C., a program of the Public Health Association of B.C, has provincially filled this gap with the 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). Additional advocacy for increased federal support for school food programming stemmed from national associations, such as Coalition for Healthy School Food, Food Secure Canada, and numerous other organizations.

After years of lobbying, the federal government committed to creating a national school food policy in late 2021 (Government of Canada, 2022). As cohesion and political wills form at the federal level, provincial and municipal governments have the opportunity to proactively solidify a system that supports local growers and farmers, ensuring local, culturally appropriate, nutritious food can exist in schools. A larger opportunity underlies the potential of this system, which could engage communities in strengthening their local food systems, creating resilient local food economies, and fostering a healthier relationship between youth, food, and the soil.

This opportunity, however, relies heavily on the continuity and sustainability of local food production. In B.C., planners have been engaged in efforts to currently preserve approximately 4.6 million hectares of arable farmland from development through the Agricultural Land Reserve (ALR) (Agricultural Land Commission, 2022).

Preservation through land use regulation has proven insufficient, as farmers in the province face rising input costs, land speculation (Rantanen, 2023), and unreliable local markets (Nixon & Newman, 2016; Tomlinson, 2016). In undertaking a food systems approach, planners have the opportunity to support farmers and 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 seeks to explore the feasibility and preparedness of scaling up local food to school (F2S) procurement programming in the province. Drawing upon key informant interviews (n=21) with farmers, planners, government officials, educators, and non-profit administrators in B.C., this study seeks to explore 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 will explore the unique and invaluable roles that farmers, public institutions, and planners can play towards supporting better access to local, equitable and sustainable foods, and in building stronger relationships between youth and their food system. In undertaking local food procurement at a provincial scale, this study will highlight opportunities for planners to engage with the complex food system in B.C. through schools. Appropriate and place-based scaling up of F2S procurement strategies can bolster local food economies and establish more stable markets for farmers (Buchan et al., 2015), feed and connect youth to food and community, and contribute to the broader effort to establish a resilient local food system capable of responding to shocks and disruptions.

The following chapter (Chapter 2: Literature Review), will cover research on food system planning, local food infrastructure, and institutional food procurement and its relevance in the context of local food procurement in B.C. Chapter 3 provides a spatial and policy context for this study through an overview of the establishment of the ALR

and presenting food system planning practices in B.C.'s regional and municipal governments. The methodological approaches and limitations are also discussed in this chapter. Chapter 4 (Findings) and 5 (Discussion) offers an overview and analysis of the study's data in response to the guiding research questions. Chapter 5 concludes with a series of recommendations for planners. The concluding Chapter 6 will provide a summary and direction for further research.

## Chapter 2. Literature Review

### 2.1. Food System Planning

The food system is characterized as a social-ecological system, which includes the activities of production, processing, distribution, and consumption of food (Ericksen, 2008; Tendall et al., 2015). Historically, the ways in which food is grown, distributed, and consumed have been increasingly shaped by a corporate food regime (McMichael, 2005). Coined by Phillip McMichael, the corporate food regime characterizes the “... global deregulation of financial relations, calibrating monetary value by credit (rather than labor) relations – as practiced through the privatizing disciplines internalized by indebted states, the corporatization of agriculture and agri-exports, and a world-scale casualization of labor” (2005, p.267). Negative environmental externalities like climate change (Mahato, 2014; Morton, 2007; Ostry, 2011), biodiversity loss (Dudley & Alexander, 2017; Norris, 2008) and soil degradation (Alam, 2014; Kopittke et al., 2019) are not accounted for in the true cost of food under the corporate food regime (Dury et al., 2019; McMichael, 2005). Without intervention from the public sector, the future of farmers and food production is under threat (Bowness et al., 2020; Pereira et al., 2020).

Globally, communities are asserting their right to “Food Sovereignty” in defining their own agriculture, food systems, and policies in response to a broken food system (La Via Campesina, 2003). Democratizing the food system is increasingly regarded as a strategy for communities to reclaim, localize, and promote resilient alternatives to the corporate food regime (Dahlberg, 2001; Hendrickson et al., 2020; Spear, 2014). To democratize and localize food systems in Canada, local governments must play a critical role in this process (Buchan et al., 2015). Planners working within local governments are intended to “safeguard 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.).

Though food has an impact on the sustainability of social, economic, and environmental factors of society, it has been absent in planning practice, research, and education (Hodgson, 2009; Pothukuchi & Kaufman, 2000; Soma & Wakefield, 2011). Planners have historically neglected food systems, as it was not viewed as part of their jurisdiction of the built environment, nor as needing fixing (American Planning

Association, n.d.). However, as planners began to value sustainability and social well-being at the turn of the millennium, there was increased interest in planning for food systems (Hodgson, 2009; Pothukuchi & Kaufman, 2000; Soma & Wakefield, 2011).

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.). While still in its infancy, food system planning offers a framework through which planners can shorten the distance between food and consumer. Food systems and needed assets often extend past municipal jurisdictions.

Kwantlen Polytechnic University's Institute for Sustainable Food Systems suggests B.C. is already well poised to undertake a bioregional approach in planning for food systems (Hansen et al., 2020). Bioregions are geographically mapped through 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. Balancing the outputs and inputs of shared cultures, economies, climates, and ecological factors, bioregions provide ideal frameworks to plan for food systems (Hansen et al., 2020).

Planners can re-localize a community's food systems through providing resources, undertaking projects and programs, advocating and facilitating, and regulating or establishing policy (Buchan et al., 2015). Food system planning often intersects through both land-use and social planning. For example, food asset mapping is a baseline tool used by planners to assess local food infrastructure and sites of food-related community value (Soma, Li, et al., 2022; Soma, Shulman, 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). 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 (Buchan et al., 2015; Eagle et al., 2015; Hammer, 2004; Nixon & Newman, 2016).

Within B.C., planners have played an important role in farmland preservation in establishing the Agricultural Land Reserve (ALR) in 1973 (Eagle et al., 2015; Nixon & Newman, 2016). Through a food system approach however, farmland protection alone is

insufficient (Robert & Mullinix, 2018). This is evidenced in the case of B.C., with half of the zoned ALR not being used for agriculture (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 whole food system, namely infrastructure and economic development, farmers and food production in the province are at risk (Tatebe et al., 2018).

## 2.2 Local Food Infrastructure

To address this risk, 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 promote local food systems (e.g. farmers markets, agritourism, 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 (Allen, 2008; Allen & Guthman, 2006; Born & Purcell, 2006). Born & Purcell (2006) express that efforts to localize food conflate spatial relations with ethical relations without considerations of scale (Morgan & Sonnino, 2008). When local food efforts are founded in morality and voluntarism, elitist, exclusive, and inequitable access to food is commonly perpetuated (Cleveland et al., 2015; DuPuis & Goodman, 2005). Scaling up local food efforts is a challenging balancing act of sustaining growth without eroding overarching goals of sustaining social, environmental, and positive localized economic impacts (Berti & Mulligan, 2016).

Authors such as Stahlbrand (2016) have identified numerous barriers to localizing the food system, including the “infrastructure of the middle”, addressing both hard and soft infrastructures (e.g. relationships, processing and distribution facilities, governance structures, and logistics) required to support small and mid-scale farmers in processing and distributing produce (Stahlbrand, 2016). This infrastructure is disappearing due to the corporate consolidation of food processing and transportation, and lack of investment in domestic processing and retail within Canada (Constance, Douglas H et al., 2020; MacRae, n.d.; Stahlbrand, 2016). On the retail end of local food infrastructure in British Columbia, consolidation can be evidenced by 73.1% of total food grocery store sales attributed to supermarket chains in 2017 (Canadian Grocer, 2018). As the infrastructure required to process, distribute, and sell food becomes homogenized



and centralized, small to mid-scale farms are excluded out and unable to meet the order demands of larger scale purchasers (Constance, Douglas, et al., 2020; MacRae, n.d.; Stahlbrand, 2016).

Advocates for localizing food systems emphasize the critical role aggregators play in re-building the infrastructure of the middle (Day-Farnsworth & Morales, 2011; Stahlbrand, 2017). Aggregation is “the consolidation of products from multiple growers” (Day-Farnsworth & Morales, 2011, p. 229). 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). Provincial support is additionally indicated by the B.C. Food Hub Network, which seeks to improve access to facilities, equipment, technology, business support, and technical services for local food growers and processors (BC 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; Nehring et al., 2017). Argued to be 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 centers, 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 have shown to be highly effective tools in fostering a resilient local food system (Blay-Palmer et al., 2013; Matson & Thayer, 2013; Stahlbrand, 2016; UNIDO, 2020).

A prominent through-line in FH literature is their ability to be place-based and designed to adapt to the continuously shifting needs of the community they serve (Berti & Mulligan, 2016; Marsden & Sonnino, 2012; Matson et al., 2014; Stahlbrand, 2016). Consolidating products from small and mid-scale farms through FHs can achieve larger volumes of a single product, and diversify the products offered to meet the demands of larger scale purchasers, such as public institutions (Day-Farnsworth & Morales, 2011). 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

(Fesenfeld, 2016; Reynolds & Hunter, 2019; Soma et al., 2021; Sumner & Lapalme, 2019).

## 2.3 Institutional Food Procurement

Under the notion that we are what we eat, the public sector's food services and programming affect the lives of millions of people (Morgan & Sonnino, 2013). Given their scale, public sector institutions such as municipalities, academic institutions, health authorities, and school boards (i.e. the MASH sector) hold significant purchasing power in their food services' procurement policies (Morgan & Morley, 2014). Institutional food procurement is the process of how and where food is purchased through food services. Food services either self-operate, or more commonly externally contract food service management companies from low-cost global supply chains or broad-line distributors (Reynolds & Hunter, 2019).

The public sector, especially at the municipal level in B.C., is notoriously underfunded and under-supported (Harney, 2022). The lack of funding, infrastructure, and rigid contracts result in public institutions relying on cheap 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 strategies and solutions (Fesenfeld, 2016; Jones & Hills, 2021; Sumner & Lapalme, 2019).

The Ministry of Agriculture has recognized the complexity of food procurement in schools, given the different forms school food takes and variability in food availability (Bodnar, 2022). A 2020 survey identified that schools in B.C. were inhibited by a lack of funding, capacity, and necessary processing facilities in supporting local food procurement (BC 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 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 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 in Italy (Filippini et al., 2018; Morgan & Sonnino, 2007; Salvatore et al., 2021), Brazil (Kitaoka, 2018; Sidaner et al., 2013; Soares et al., 2017), the United Kingdom (Nelson et al., 2007), among others (Hock et al., 2022; Niebyski et al., 2014) have been well researched. This incorporation of local food into schools has economic (Motta & Sharma, 2016; Roche et al., 2016) and social (Bagdonis et al., 2009; Izumi et al., 2010; Zepeda & Leviten-Reid, 2004) benefits for farmers, students, and the public sector. However, incorporating local food into schools is only possible if the food system hosts appropriate local food infrastructure and supportive policies.

Like all re-localization efforts, harnessing public purchasing power in schools can also perpetuate the " (i.e. reproducing neoliberal values without consideration of scale) (Allen, 2008; Allen & Guthman, 2006; Born & Purcell, 2006; Sonnino, 2010). Countering this concern, Sonnino (2010) argues that the 'local trap' diminishes the potential of local food as sites of resistance against the depredations of the corporate food regime. In an analysis of two innovative school procurement strategies in the UK, Sonnino (2010) illustrates that school food procurement can still be scalable and incorporate aims of social justice. Building on this, Stahlbrand's (2017) "value based food chains" offer a framework for foregrounding values (e.g. social and environmental objectives), alongside economic functions into institutional food procurement.

Progress to establish cohesion on a national level for a school food policy has been slow. Without national or provincial cohesion, school meal programming in B.C. has been offloaded onto underfunded school districts (Bodnar, 2022). This dispersal of accountability results in school procurement programs fragmented in funding, execution, tracking, and reporting across the province (Bodnar, 2022). Furthermore, current research on Canadian public procurement in schools lacks the perspective of farmers and food growers. This is especially concerning, given the critical role they play in food systems, and the potential benefits of connecting farmers with public sector purchasers, such as schools (Berti & Mulligan, 2016; Conner et al., 2012; Nehring et al., 2017). The success of procuring local food in schools relies on the capacity of local growers to

supply it. To move forward, an understanding of the current perspectives and barriers experienced by farmers in the province is essential.

In response to the recent momentum to build a pan-Canadian school food policy by the federal government (Government of Canada, 2022), planners in B.C. have an opportunity to connect local food producers and public institutions to the broader food system. The multi-functional character of food and associated problems will require multi-disciplinary solutions (Cabannes & Marocchino, 2018). In linking different actors, sectors and spatial scales involved in B.C.'s food-related barriers, planners will have to undertake creative strategies to harness the public sector's purchasing power and establish viable local food infrastructure.

## Chapter 3. Methods

### 3.1 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 scope of B.C.'s Agricultural Land Reserve (ALR). The province has a unique jurisdiction over the development and zoning of agricultural land through the 1973 provincially legislated Agricultural Land Commission Act (ALCA) (Agricultural Land Commission, 2022). The Act has three primary purposes:

- (a) to preserve the agricultural land reserve;
- (b) to encourage farming of land within the agricultural land reserve in collaboration with other communities of interest;
- (c) 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 Agricultural Land Commission (ALC) is an administrative tribunal independent of the provincial government and responsible for upholding the Act's purposes (Agricultural Land Commission, 2022). ALC staff are responsible for analyzing policy, reviewing regional planning directives, and engaging with local governments to align with the Act (Agricultural Land Commission, 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 (Agricultural Land Commission, 2022).

Despite limited zoned arable land, agriculture in the province is a significant economic contributor. Prime farmland within B.C. is concentrated around dense population centers, 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 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 production and exports of dairy,

poultry, greenhouse vegetables and floriculture, and fruit (Ministry of Agriculture, 2022). Farmland preservation under ALR zoning in the province has proven economically important.

In recent years, farmers and planners have identified gaps and barriers within the ALC Act that prevent or 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 their commitment to revitalize the ALR and ALC through a series of public consultations from stakeholders, farmers, ranchers, and the public (Agricultural Land Commission, 2019).

These consultations outlined policy priorities, emphasizing B.C. farmer's need for stronger, place-based local economies, and interest for the provincial government to promote F2S programming and procurement (Agricultural Land Commission, 2019).. These policy directives were later acted upon, as both the B.C. Minister of Education and B.C. Minister of Agriculture included directives to advance local school food programming in their 2020 mandate letters (The Coalition for Healthy School Food, 2020). Cohesion at the federal level began late in 2021, with a commitment to creating a national school food policy (Government of Canada, 2020; Fawcett-Atkinson, 2022).

Given the present temporal and policy context in B.C., planners have the opportunity to establish a strong F2S procurement strategy for farmers on the ALR through a food systems approach. Food system planning is already being implemented across the province at municipal and regional scales (Robert & Mullinix, 2018). Official Community Plans (OCP) are the long-term goals of municipal and regional districts that guide land use decisions and policies (Local Government Act, 1998, C.1).

A study conducted by Robert & Mullinix (2018) of 49 rural and urban municipal OCP's in B.C. referencing food system planning initiatives emphasized the discrepancies in policy and economic development priorities related to food. Of relevance, only 12% of reviewed OCP's in both urban and rural municipalities showed policies supporting local institutional procurement (Robert & Mullinix, 2018). The complex nature of food systems in the province extends beyond municipal policy efforts, and local food procurement offers a policy window to bridge the urban and rural divide (Robert & Mullinix, 2018). This study seeks to identify opportunities for planners to

collaborate, connect and strengthen food system initiatives beyond jurisdictional boundaries through F2S procurement initiatives through key informant interviews.

## **3.2 Study Methodology**

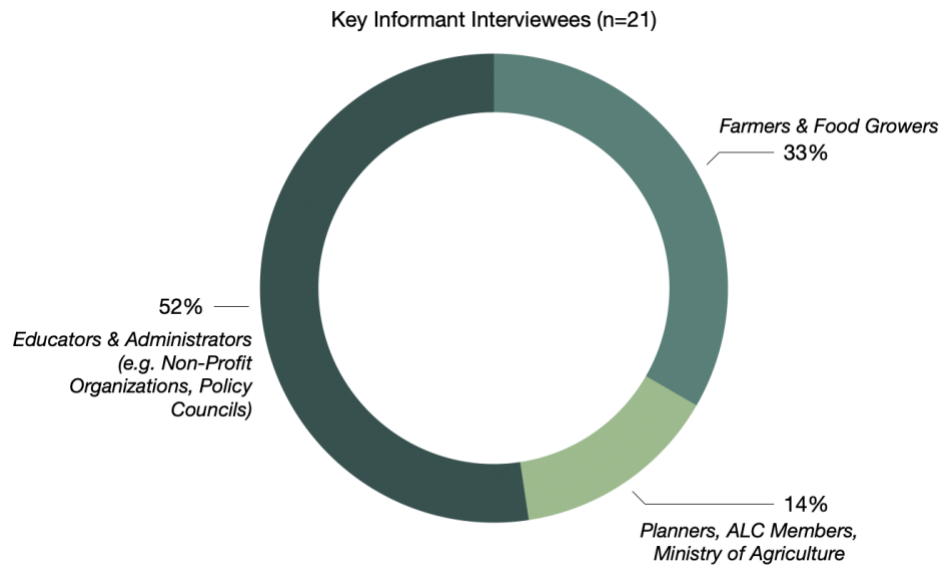
### **3.2.1 Sampling, Recruitment and Data Analysis**

This study secured research ethics approval by the Simon Fraser University Research Ethics Board. From September 2021 to March 2022, 21 semi-structured key-informant interviews were conducted with farmers and food growers, planners, educators and non-profit administrators, and government employees working within B.C. (see: Figure 1). Some interview participants also had overlapping work and volunteer experience in these professions. To determine the interviewees, a list was assembled in collaboration with SFU and Public Health Association of B.C. to identify potential participants already working in agriculture and/or F2S efforts.

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, one for farmers and food growers (see: Appendix A), another for B.C. planners and government workers focused on agriculture (see: Appendix B), and finally a script for educators and administrators in the non-profit sector (see: Appendix C). The questions asked were catered to the professions of the interviewees to better understand 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.

Researchers have a responsibility to conduct systematic, procedural, and rigorous qualitative data analysis through coding (De Wet & Erasmus, 2005). These transcripts were coded into themes (e.g. barriers and opportunities) and sub-themes based on relevance to the two guiding research questions. The analysis of themes and direct quotes of interviewees was compiled in the findings section of the following chapter (See: Chapter 4).





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

### 3.2.2 Limitations

There were a number of limitations in this study. Due to the spatial scale of this study, the number of key informants (n=21) is not representative of the entire province's perspective on F2S procurement. Furthermore, with one of the research objectives of the study being to better inform planners, the lack of input from planners and government officials already working in food systems is a shortcoming in the study's findings. In attempting to mediate this limitation, additional time was spent researching food system planning literature and current practices in B.C., as well as reviewing planning reports on the trends and challenges around agriculture in the region.

A second limitation was that demographically, 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 were growing food in the ALR or owned the land they were growing on. This resulted in varying degrees of knowledge among the interviewed stakeholders regarding the role of planners in the province. Furthermore, this demographic of farmers is not representative of the diverse agri-sector throughout the province. 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 scope of this research, Indigenous food systems and food growing practices were not incorporated. Settler colonial agricultural practices on this land sustain the dispossession of land and erasure of Indigenous food growing practices (Harris, 2004). While still a limitation, the intention was to avoid co-opting and homogenizing the diverse Indigenous knowledge into colonial planning practices and research. Erasure can be further perpetuated in attempting to homogenize Indigenous Nations' respective assertions of food growing, ways of knowing, and sovereignty on their land.

Indigenous relationships to food are not meant to be homogenized or diluted into the colonial planning strategies focused on in this paper. Taiaiake Alfred (Kanien'kehá:ka) (2005) reminds us (settlers) to "embrace the process of contention" (p.76) in seeking this harmony and balance within pluralistic food systems. It is important to recognize that over half of the ALR exists upon stolen, unceded, and unsurrendered Indigenous land. Further research should be conducted inter-governmentally with Indigenous Nations and colonial governments, to identify opportunities to scale up self-governing and culturally appropriate food systems that would benefit Indigenous growers, entrepreneurs, and farmers. Additionally, further research could explore how different food growing and harvesting practices can be respectfully honored and included in school food programs and education.

# Chapter 4. Findings

The findings from this study illustrate the complexities of planning-related barriers and opportunities to scale up local food procurement in F2S programming. Insight on barriers (see: Section 4.1.) and opportunities (see: Section 4.2.) from the perspectives of the interview participants, namely farmers, non-profit intermediaries, and planners are included. 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. These complexities will then be analyzed in the discussion (see: Chapter 5).

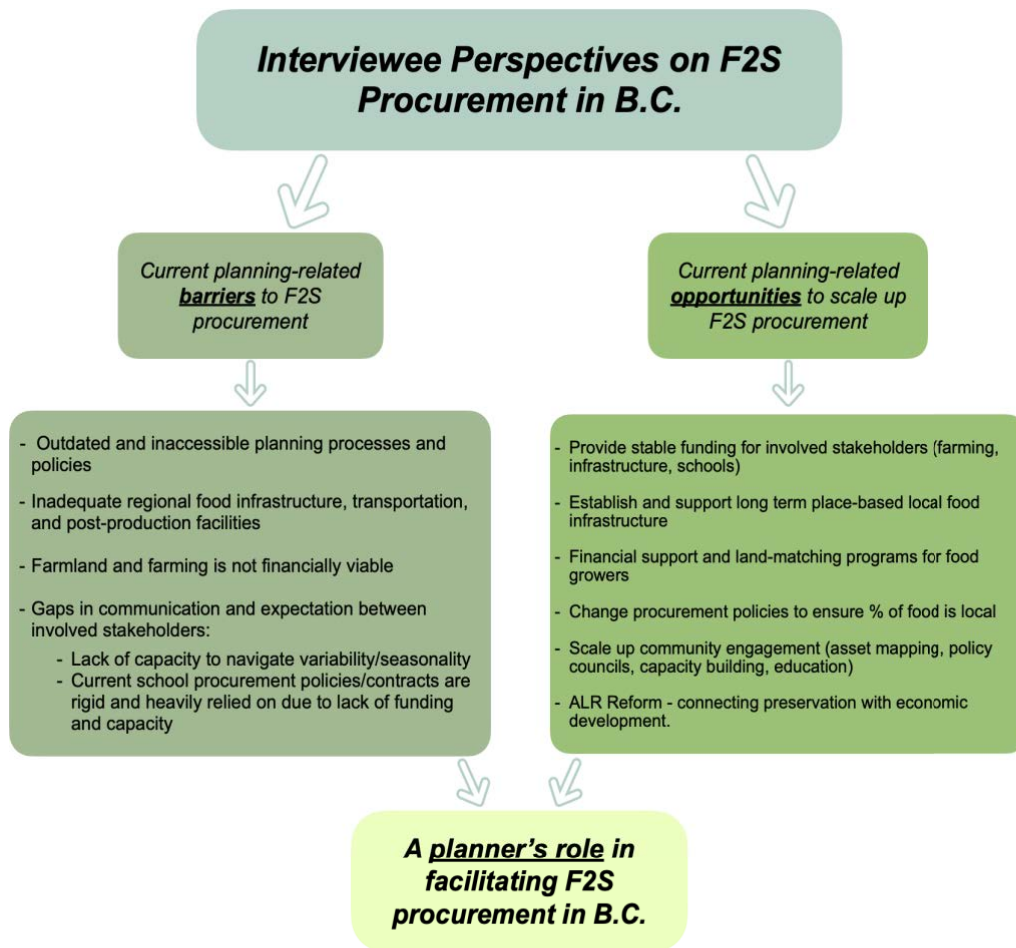


Figure 2 Coding of Themes from Interviews

## 4.1. Current Barriers

### 4.1.1. Inaccessible and slow planning processes and policies

Farmers felt that the consultation process and general engagement from the Agricultural Land Commission (ALC) were lacking. Given that not all interviewed farmers were landowners, or farming directly on the zoned agricultural land, they had often been neglected from consultations. 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's also impeded on farmer's abilities to build on-site infrastructure, such as additional housing for farm workers:

*“And not having access to housing for labor 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 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: Section 4.1.3.). The consensus among the interviewees is that they were disappointed 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 noted also that although the intention of ALR land was to give restrictions that make it 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)

#### **4.1.2. Gaps in the ‘infrastructure of the middle’**

As introduced in the literature review (see: Section 2.2.), Stahlbrand's (2016a) ‘missing’ middle identifies both the hard (e.g. processing facilities, distribution networks, etc.) and soft (e.g. relationships, governance structures, logistics, and relationships) food infrastructure required to support small to mid-scale farms. This following section implements these concepts of hard and soft infrastructure in exploring the current state of local food infrastructure (LFI) in the province. On both ends of procuring food, the purchasers (schools) and farmers felt that navigating the logistics of storage, transportation, and delivery of food was unrealistic due to a lack of capacity. LFI's are discussed both as a barrier and later as an opportunity (see: Section 4.2.2.). A farmer felt the absence of LFI's inhibited the scale at which they could grow food, and in turn affected the amount of on-farm income:

*“...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. To fill in for the missing infrastructures, F2S procurement initiatives was offloaded onto volunteer food-champions and non-profits. Both of which are constrained by inconsistent and minimal grant funding. Many interviewees who were filling this gap shared the challenges associated with low funding and capacities. Though primarily focused on barriers with transportation, aggregation, and processing, one non-profit administrator felt there was also a lack of social infrastructure that connected potential purchasers to food growers:

*“... it's [school food programs] done very differently in every school and often falling on the shoulders of teachers or parents, like small parent groups. So its a lack of capacity. It's probably funding and then lack of connection to some of those local producers...”* (Non-Profit Administrator 1)

Concerningly, current F2S efforts in the province have been offloaded onto non-profits and volunteers navigating inconsistent grant funding. The lack of hard and soft infrastructure in the province to help connect, facilitate, and distribute food between food growers and schools as purchasers is a clear barrier.

### **4.1.3. Farmland and farming is not financially viable**

In 2021, the per acre value of farmland was \$7,511 in the province, showing an increase of over \$2000 from a decade prior in 2011 (Statistics Canada, 2021). Interview participants not only felt that purchasing land was expensive, but also that the career itself was financially unfeasible due to the high cost of inputs. If available, the upfront capital to initiate purchasing farmland is unattainable:

*“(...) when you're looking at growing on a market scale or market garden scale, and you need to have that capital input to begin with, and when we look at something like, if you're purchasing raw land, you need to have a 50% down payment, that's not necessarily accessible for a lot of folks to have that money upfront (...) there's barriers around the cost [of land].”* (Non Profit Administrator 8)

Farmers are therefore required to rent or lease land from those who own it. Operating a farm on rented land is precarious for farmers, who are subjugated by the choices of their landlords. Farming under short term leases under speculative real estate markets inhibits the long term business and land planning potential, and the ability to acquire bank loans (Metro Vancouver, 2016; as cited in Tatebe et al., 2018). An interviewee both working as a farm manager and food policy member illustrated the implications of real estate speculation:

*“(...) because of the speculative nature of real estate, we are losing farmers, and we're going to continue to lose local farmers because folks like myself, who would be interested in farming 10 acres, 20 acres, can't anymore because you need to be a millionaire to do that”* (Planner and Farmer 4)

The speculative nature of farmland in B.C. also shines a light on the policy failures of the Agricultural Land Commission Act. Though farmland was preserved, the regulations and incentives have backfired under the current real estate market. Participants felt the ALR land in their communities is inadequately and inefficiently used for food production:

*“... 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)*

Beyond the costs of purchasing land and required inputs, substantial amounts of ALR land in the province bear the weight of anthropogenically induced climate disturbances, such as flooding, heat waves, and other weather irregularities (Ostry, 2011). Farmers face the economic burden of recovering their land after these crises.

*“(...) it's certainly not easy for farmers to get started or to purchase the land. And then flooding is another huge part, like so much of our agricultural land and the ALR was sort of sanctioned land that is in the floodplain...and we're going to have more and more of those events. So it's a little bit unfair to have (...) that be the land. I mean, granted is fertile soil, and it's great. But to have that be the land that that's the option for farmers to be protected within those regions is kind of a double edged sword” (Non-Profit Administrator 8)*

#### **4.1.4. Gaps in communication and expectations**

Disparities were identified between 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 felt a diffused accountability to even begin enabling F2S 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, like you need to support food systems or food systems education ... So it's always a frustration, because it tends to, people tend to be like that somebody else's responsibility.” (Non-Profit Administrator 1)*

When stakeholders were able to navigate past this first hurdle, they found additional barriers around logistics and timelines of food growing. Farmers involved in F2S procurement felt purchasers were unable to understand the timing required to plan, grow, harvest, and deliver locally grown produce. Institutional purchasers were lacking in

the capacity to navigate and adapt to the seasonality of local food and the seasonal adjustments associated with smaller scale food production:

*“(...) 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 (...) that’s the challenge. 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)*

Additionally, smaller scale farmers seeking to sell to schools willing to navigate the aforementioned barriers were not able to meet the order minimums required in the school’s procurement contracts:

*“Issues that came up there as challenges were minimum orders. So in that sense, it was the reverse - that generally those clients [schools] wanted large volumes. So small farmers typically don’t have the consistency and volume available that those clients are looking for.” (Planner and Farmer 4)*

The limited institutional capacity within schools was further evidenced in their reliance on large scale food suppliers (e.g. Sysco or Fresh Point). Due to a lack of funding and capacity to navigate the variabilities associated with local food purchasing, schools would reasonably choose an established company and a lower cost option:

*“...it is way easier for us as an organization to have the consistency of being able to purchase from a large food supplier, like Sysco, or Fresh Point (...). They are reliable to us. So when push comes to shove, we will go towards those larger operators rather than purchasing local food.” (Non Profit Administrator 5)“*



## 4.2. Current Opportunities

Despite experiencing barriers, stakeholders still believed in the value of local food in schools. Hosting a multitude of 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)

### 4.2.1. Provide government funding & support:

The farmers and other participants interviewed generally felt that in order to effectively scale up procurement of local food, stable and ongoing funding support from government would be required to navigate the barriers discussed. In tandem with opportunities for mandated policy (see: Section 4.2.3.), 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 non-profit Young Agrarians were already providing invaluable support throughout the province by supporting farmers through their B.C. Land Matching Program (Young Agrarians, n.d.). Funded by the provincial government, this free program connects land holders to farmers and supports in developing mutually beneficial lease agreements:

*“... that's why it's so awesome that we have our northern B.C. land match ... and Young Agrarians. Because there is that opportunity (...) that's another great workaround is to have that connection between folks who own land and folks who want land, and to have that sort of lease agreement be able to be procured.”* (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 burnout and volunteerism (see: Section 4.1.4.):

*“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. So that is a huge challenge in the sort of non-profit industrial complex that I wouldn't want to see carried over to school food.” (Food Policy Member 3)*

#### **4.2.2. Facilitate and establish place-based local food infrastructure**

In parts of the province, there have been promising initiatives to establish local food infrastructure as incentivized by the provincial government (BC Ministry of Agriculture, n.d.). Namely through food hubs, these interventions have sought to provide local farmers with support through the logistics of facilitating sales, aggregating, and distributing food, and providing post-production facilities. In navigating the large orders associated with F2S procurement, stakeholders identified this infrastructure facilitating aggregation as needed (see: Section 4.1.2.). Planning for local food infrastructure to be streamlined, flexible 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 exist, 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. It's not fun to go to those areas for the farmer, and I'm sure for staff to be able to work there. So, food hubs need to be in centralized locations where all of us can be seen... Something like this needs to be central.” (Farmer 1)*

Like other opportunities mentioned, the success is heavily dependent on stable and ongoing funding. In general, the interviewees felt this need was critical in ensuring the success of local food infrastructure. A farmer made the case for this infrastructure to be a central, publicly funded, community asset to aid in navigating the aforementioned 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)*

Equivalently, the value of strong, connected social networks (soft infrastructure) was considered an opportunity. Establishing a database or network within food hubs can streamline the relationship and logistics of a sale between local food growers and schools. An operator of a food hub in B.C. identified that:

*“(…) a directory (…) that schools could go to, or if it is a list of local farms, will be very helpful. Cold calling local farms and asking about their past or distribution. Such as, do the farms deliver? How Often? What are the order minimums? These are important, I think to meet the teachers' needs, and then also an understanding of who's considered the local farmers if this becomes a mandate for schools to say, like order local, like everyone's definition of local for different people.” (Non Profit Administrator of a Food Hub 9)*

### **4.2.3. Creative policy interventions**

Participants felt that policy interventions were a needed tool in scaling up F2S programming. 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)*

The enactment of this policy mandate will require additional support and funding for school budgets, as well as a defined understanding of ‘local’ (see: Section 5.2.2.). Land-use and zoning was 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 F2S 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)*

#### 4.2.4. Community engagement

The role of planners was especially evident in the need for community engagement, mobilization, and networking. The success of currently operating F2S programming required engagement from all stakeholders from their inception:

*“... 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, and that the vision, and then it's sort of very well organized, and facilitated (...) and 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 furthered by implementing food asset mapping 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)*

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 were lacking 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)*

Smaller to medium scale farmers already facing economic challenges expressed the unequal burden in risk in selling to a new market. Without proof and/or trust that the market stream in schools is viable, collective buy-in from farmers already operating on these tight margins will be unlikely.

#### 4.2.5. ALR Reform - land preservation and economic development

Land zoned under ALR was seen both as a barrier (see: Section 4.1.4.) and equally an opportunity for improvement. Farmers interviewed felt that agriculture and farmland protection had been deprioritized by local governments. As planning focuses shift to other forms of development, protected agricultural land is increasingly important to ensure the feasibility 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. So, like we're in a one sort of prime and as zoned by our municipalities, so then they also maintain that as a focus in their planning. So, and then there have been changes throughout the years. But in general, 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, I think is like a double edged sword sort of thing, but that has provided a lot of opportunities for farmers ... 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 currently used and occupied to support more farming. At the time of the study, participants felt the Agricultural Land Commission 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.

## **Chapter 5. Discussion and Recommendations**

### **5.1 Discussion**

The findings of this study stress the urgency for cohesive multi-scale action from local governments, farmers, schools, and involved organizations in response to the recently initiated national school food policy. Participants emphasized the transformative benefits that stem from already existing F2S programming in the province. Since the beginning of this study in 2021, political will and legislative change is underway in the province. Notably in relation to the identified barriers related to land-use regulations and on-site housing (see Section 4.1.1.). Barriers and opportunities determined in this study were similar to a report conducted by the Ministry of Agriculture between 2018-2019 (Agricultural Land Commission, 2019). Since then, promising 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.

The 2019 report conducted by the Ministry of Agriculture additionally emphasizes farmers' interest in government assisted F2S programs, directly identifying government institutions (e.g. schools) as an economic development opportunity (Agricultural Land Commission, 2019). As school food gains political traction on federal and provincial levels, a policy window at the local level is opening. Planners within the province are already 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 (Soma et al., 2021), establish resilient local food economies, and lay the foundation for food sovereign communities.

The third question guiding this following section examined the role of planning and planners in helping facilitate local food procurement in schools. The food systems framework embeds and reconnects communities throughout the entire life cycle of food (see: Section 2.1). Local food procurement through a food systems framework will not be eliminating the inequities and control perpetuated by the private sphere's dominating control and power over food. With appropriate resources and assistance, however, local governments are well poised to identify appropriate, place-based interventions to

strengthen their existing local food systems and economies, while also supporting the health and well-being of people and their right to food.

### **5.1.1. Plan for access through infrastructure and zoning**

Through land-use planning and zoning, planners have a tool to proactively encourage and facilitate F2S procurement. Agriculturally zoned land has proven important in the province to protect arable land (Nixon & Newman, 2016). Findings from this study however reaffirmed that protection of land without economic development and supporting infrastructure to promote food growing is inadequate. To meet the demands and minimum orders of schools, stakeholders emphasized the need to establish local food infrastructures through food hubs, processing facilities and storage space (see: Section 2.2.). The B.C. Ministry of Agriculture has established programs (Feed BC, Grow BC, and Buy BC) already in place to support this infrastructure and social networking. Within Feed B.C.'s program, the provincial government has established the B.C. Food Hub Network (BC 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 (BC 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, and often dependent on underwaged food champions (see: Section 4.2.2.). An alternative to this was identified through municipalities establishing this infrastructure as a publicly funded community asset. An example of this within the BCFHN is the 'Sprout Kitchen Regional Food Hub' was initiated and established by the municipality of Quesnel.

Planners seeking to implement LFIs should also look past jurisdictional boundaries through collaborative planning practices. The City of Nelson provides an example of extending beyond the boundaries of their municipality to collaborate with surrounding municipalities, 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 better integrate 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.

By way of an alternative, planners can help establish local food infrastructure (LFI) (see: Section 2.2) through the municipal tools provided. Planners can amend zoning bylaws to encourage food growing, warehousing, and storage facilities proximate (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 LFI initiatives (Buchan et al., 2015; Wegener, 2009). This infrastructure enables the incorporation of facilities and supports required to meet the unique needs of a food system and its community. Planning for LFIs establishes a versatile response to re-embed the food economy within social networks through locally controlled, shortened food supply chains (Connelly et al., 2011). Planner's supporting LFIs to meet the place-based needs of the F2S procurement will be a crucial intervention.

### **5.1.2. Plan for complexity through policy**

The findings of this study 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 policy interventions (see: Section 4.2.3.) and stakeholder participation (see: Section 4.2.4.) in scaling up F2S procurement. Food policy has historically been standardized to provincial and federal levels, further monopolizing 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 can creatively infuse a food system approach into their community (Hansen & Tatebe, 2020).

Planners can navigate the complexity of food systems through policy design and implementation. Through embedding food systems into comprehensive strategies like official community plans (OCPs), neighborhood plans, or food charters (Buchan et al., 2015; Hammer, 2004). Public institutions purchasing local food can be directly mandated through procurement policies (Buchan et al., 2015). The following examples of



procurement policies have addressed some barriers identified in this study, including rigid contracts, seasonality (see: Section 4.1.4.), and the need for economic development opportunities for farmers (see: Section 4.1.3.).

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 into this funding, requiring municipalities to purchase 30% of food from local farms (Sidaner et al., 2013). Through this funding, farmers can access annual growing contracts of R\$20,000, and are offered further economic incentives to farm with organic or agroecological growing methods (Guerra et al., 2017). The PNAE evidences the importance of cohesion and support at all levels of government, and how policy can ensure place based F2S programming that mandates local food procurement in providing stable, ongoing economic development opportunities for farmers.

Another example for integrating local food procurement was found in Ohio, United States. 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 were legally required to procure 20% of food from local farms and food products (PolicyLink, 2015). This Act also required that food procured be recorded and tracked and ensured that a percentage of funding comes from the government budget. Food procurement policy can also adapt to the seasonal availability of local produce. In Quebec, Concordia University's food services' procurement policy has seasonal targets for local food, with 75% local in summer, 50% in fall, and 25% in winter/spring (Reynolds & Hunter, 2017).

Through food policy councils, 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 creating, or working alongside, pre-existing food policy councils on municipal and regional scales. Food policy councils have been identified as effective tools to garner community knowledge, identify needs, set goals and strategies, and recommend direct food policies regarding institutional procurement (Roseland, 2012). Planners can further indirectly support these councils by offering funding, facilities to meet, and

participating in these councils). For example, planners are well integrated in the Vancouver Food Policy Council, which catalyzed policy changes encouraging city facilities to procure locally, and implement farm to cafeteria programming (Vancouver Food Policy Council, 2022). Furthermore, cohesion on municipal and regional levels enables collective values to inform larger governing bodies like the Agricultural Land Commission, and provincial or federal food policies (Harper et al., 2009).

### **5.1.3. Plan for data collection through multi-dimensional metrics**

Mandating percentages into policy has proven effective, though recording, tracking, and reporting is another important component of policy processes and program implementation. Data on local food procurement helps engage stakeholders and calculate broader impacts for further progress, ensuring the longevity of institutions purchasing local food (Reynolds & Hunter, 2017).

The Los Angeles Good Food Policy Purchasing Program (GFPP) has been considered one of the most comprehensive school food policy documents that accounts for the intersecting impacts often neglected in procurement (Sustain Ontario, 2015); (GFPP, 2019). GFPP embeds principles of redistribution, justice, and equity to address the risk of ‘defensive localism’, where place-based interventions can unintentionally foster potential exclusionary, xenophobic, and elitist politics (Feagan, 2007; Winter, 2003). While primarily focused on scaling up institutional procurement efforts, the GFPP outlines the importance of tracking multi-dimensional metric systems and how to incorporate social values (e.g. environmental sustainability, local economies, workforces, animal welfare, and nutrition) into food procurement policy (GFPP, 2019).

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: Section 4.2.4.) for planners to support community-driven data collection in identifying gaps in infrastructure needed to implement F2S procurement. A study conducted by Soma et al. (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 (...) in order to ensure food system resiliency, Indigenous food sovereignty, and better food accessibility” (Soma, Shulman, et al., 2022, p. 336).

#### **5.1.4. Plan for cohesion and collaboration through bioregionalism**

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 collaboration that crosses jurisdictional boundaries. In collaborating with other jurisdictions and expanding the scope of the food system, planners can look to a bio-regional framework (see: Section 2.1.).

Through this lens, 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 collaborative opportunity to identify the gaps and opportunities available in scaling up F2S procurement. Establishing a feasible scale to plan and coordinate procurement programs, bioregionalism enables place-based interventions and policies that often get lost in provincial and federal food policies.

Within the province, bioregional planning is already underway as seen in a study in South Western B.C. indicating that bioregionalism supported planners in aligning the “...community and the environment in a relatively uniform and well ordered, yet adaptable, way” (Harris et al., 2016, p.12). Implementing bioregions for scale and capacity building can support local food infrastructure, implement cohesive food strategies and policies, and share multi-dimensional data collection, so that communities, planners, and local governments can better advocate with a collective voice.

In collaborating 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 (Agricultural Land Commission, 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 therefore ensure the viability of school food procurement.

## 5.2 Recommendations

Planners in the province have the opportunity to establish proactive place-based strategies to respond to the progressing provincial and federal support for school food policy. The following recommendations are intended for planners in the province seeking to scale up the procurement of local food in schools:

**Table 1**      **Recommendations to municipal and regional planners in B.C.**

<b>Financial Support</b>
1. Advocate <b>multi-year funding streams</b> from provincial and federal governments for F2S procurement and programming that can support the distribution and processing of local food <b>including funding for coordinator roles</b> at a municipal or regional level.
2. Scale up and support current <b>economic development and land matching programs</b> for farmers and farm workers.
<b>Policy and Land-Use Zoning</b>
3. Embed local food procurement into policies that clearly outline and assign roles to address necessary funding, seasonality, and capacities with <b>clear and mandated minimum % local food procurement targets</b> .
4. Support in establishing a <b>cohesive</b> regional <b>multi-dimensional metric and data tracking system</b> for F2S food procurement programs. Including mandated and embedded metrics of redistribution, justice, and equity as identified by the community.
5. Embed community values and assets within procurement policies and programs through ongoing community engagement processes and/or <b>regional food policy councils</b> .

6. Implement carrot and stick regulatory instruments in the form of **incentives** and/or **restrictions** on existing zoned arable farmland to prevent further speculation and encourage food production

7. Undertake and/or update municipal **food asset maps** to obtain a baseline understanding of available local food infrastructure and sites of community value.

### **Local Food Infrastructure**

8. Scale up and **invest in local food infrastructure** that aids in the procurement, processing, aggregation, storage, and distribution of local food through funding and resource sharing.

9. Engage with planners and communities across jurisdictions to identify, collaborate and share best practices and available infrastructures through a **bioregional** approach.

## Chapter 6. Conclusion

This study sought to better understand the feasibility of scaling up local food procurement through the perspectives of farmers, planners, and advocates within the non-profit sector. Regardless of the interviewed stakeholders' professions, a collective sentiment of burnout, frustration, and disconnection was felt regarding the current state of F2S procurement and programming. Farmers and food growers expressed sentiments of neglect in the provincial government's outdated engagement processes, indebtedness with rising land costs due to speculation, and a lack of supporting food infrastructure. Interviewees working in intermediary non-profits that facilitate F2S procurement were relying on the initiatives of burnt-out food champions, volunteerism, and inconsistent funding streams.

The province's speculative real estate market has been sprawling out to the edges of cities and towns, threatening farmers already navigating indebtedness (Statistics Canada, 2021), unstable, export-oriented, and consolidated markets (Fenton et al., 2021), and increasing anthropogenically induced extreme weather events (Ostry, 2011). The planning profession has both exacerbated and mediated this dissonance between communities, farmers, and their food systems. In response, planners have the opportunity to play an invaluable role in repairing and strengthening local food systems. Acting creatively, planners working through the identified opportunities in the procurement of local food in schools can scale up a system that supports local growers and farmers, ensuring local, culturally appropriate, nutritious food can exist in schools.

As outlined in the discussion section (Chapter 5), planners have numerous tools available to support the scaling up of F2S procurement when undertaking a food systems approach. Planners will be required to implement statutory (e.g., land-use zoning and bylaws), strategic (e.g., policies and programming), and social (e.g. policy councils and food asset mapping) approaches. Supportive funding is already being established at the provincial level within the 2023 budget. A \$214 million investment over three years to scale up school food programming was announced with the intention of ensuring youth can access local food (Ministry of Finance, 2023). Beyond funding, procuring local food into schools requires a relational, transdisciplinary mobilization of diverse actors and ways to know how to grow and engage with food. These opportunities and recommendations will require a shift from historically technocratic top-

down approaches, towards planners engaging as players in a community-led reclamation of food as a complex environmental, social, cultural, and economic system.

Food system planning can play a critical role in decentralizing a corporate-consolidated food sector and asserting the legal right to food. This planning approach envisions the growing and sharing of food as a place-based social, cultural, and environmental system, rather than a linearly produced, commodified product. Without embedded principles regarding social, economic, and environmental inequity, however, this vision is unattainable. As noted by Born & Purcell (2006), efforts in localizing food systems will not inherently lead to greater sustainability, but rather "... it leads wherever those it empowers want it to lead" (p. 196). Planners must be diligently aware that efforts to localize food will not inherently solve racial, social or economic inequities and environmental harms (Feagan, 2007). Unless community values addressing inequity are embedded and mandated within this work, these systemic injustices within the food system will remain status quo.

Faced with the longstanding pursuit of a better future, planners are required to enact decisions, plans, and community aspirations that extend into multiple spatial and temporal scales on behalf of current and future communities. Articulated by Zapata (2021), "[w]hen we make plans, we choose who's futures matter" (p. 641). The 'plan' for food has been left in the hands of the corporate food regime, prioritizing efficiency and growth at the cost of destroying "social and collective knowledges of how to produce and share food" (Autonomous Farmers Collective, 2022, p.5). In efforts to create a different plan, food must be disentangled from the fog of global state-corporate capitalism (De Schutter, 2019).

The procurement of local food in schools within the province will be a keystone in bridging efforts towards attaining the legal 'right to food' (Soma et al., 2021), fostering a relationship and understanding between youth and their food systems (Valley et al., 2018), and assertions of food sovereignty (Powell & Wittman, 2018). Farm to School B.C's programming incorporates three invaluable goals of (1) bringing healthy, local, and sustainable food into schools, (2) experiential and hand-on learning for students, and (3) enhancing the connectedness of communities and schools (Farm to School BC, 2019). Under this umbrella, procurement is just one element that offers the invaluable linkage between food growers, youth, and the purchasing power of schools.

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# Appendices

## Appendix A

### Interview Script 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. Have you heard of the Buy BC, Grow BC, Feed BC program? What are your perspectives on this program? Has your farm benefitted from the program in terms of procurement? (Prompts: what's working well? What needs improvement?)
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 institutions? If familiar, please share your experience/understanding. If not, would this be an area of interest that you think 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?

## Appendix B

### Interview Script for Planners, Ministry of Agriculture, and/or Agricultural Land Commission

1. 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. 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?
9. Is there anything else you would like to share or discuss about farm to school food procurement?



# Appendix C

## Interview Script 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?