

Food Systems Planning Evaluation Framework

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Cover photo of Strathcona Community Gardens by Strathcona Residents Association

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Executive Summary

There is a broad spectrum of interventions used by local governments to address food systems related issues, which includes but is not limited to community gardens, boulevard gardens, farm stands, and urban agriculture. This broad spectrum results in complex and divergent sets of land-use legislation, policies and practices being employed by municipalities to address (or exacerbate) key issues facing their constituents (e.g., land dispossession, food insecurity, social isolation, community connectedness, social justice etc.). The evaluation of policies, programs and projects is an integral part of determining progress on sustainable, resilient, and equitable food systems (Blay-Palmer et al, 2019; Pérez-Escamilla et al, 2017). However, a key challenge remains developing appropriate and relevant indicators to measure, track, and document progress on social justice, particularly in the context of food systems planning (Blay-Palmer et al, 2019). Evaluations require significant and various types of data to assess the multi-dimensional scope of food systems related issues at various levels, including federal, provincial/territorial, and municipal (Blay-Palmer et al, 2019). The presence of multiple agencies (i.e. The Ministry of Agriculture and Ministry of Health, non-profit organizations, etc.) responsible and accountable for food systems policy results in disjointed efforts to address and evaluate food systems related issues (Blay-Palmer et al, 2019; Candel and Pereira, 2017). The various sets of data and collection methods used across these agencies, compounded with isolated and independent monitoring and evaluation efforts, results in limited true understanding of whether policies, programs and interventions are meeting the needs of communities (Blay-Palmer et al, 2019).

Given the set of complex and interconnected factors that touch food systems, scholars and experts argue that food systems transformation and associated policies and programs must have both an intersectional lens and be cross-cutting across fields. In recent years, there has been a push across the industry that food security is not possible without considering and embedding social justice in the analysis and interventions targeted at improving these issues (Cadieux and Slocum, 2015; Allen, 2008; Bedore, 2010). In the context of community food security, social justice is defined as “the injustice of hunger and food insecurity” as well as “the adequacy of wages and working conditions for all those who earn their livelihoods from the food system” (Winne, n.d., p. 2). By promoting the importance of equity and inclusion to bring about systemic change to the current food system, this approach distances itself away from the status quo of simply encouraging “local” systems and consumption to address inadequate and unjust access to food (Horst, 2017; Mares and Alkon, 2011; Wekerle, 2004; Born and Purcell, 2006; Bedore, 2010).

Social justice concepts are often qualitative in nature, which makes it difficult to evaluate their impacts without tangible and context specific outcomes and indicators. There has been growing research and literature related to this issue to develop strong approaches and improve the monitoring and evaluation of these types of efforts. Scholars and experts argue the importance of centering values and communities into outcomes and performance indicators to better evaluate social justice in the context of agriculture (Klugman, 2010, Vang, 2019; Kosheleva, 2016; Abi-Nader et al, 2009). Outcomes such as increased organizational/community capacity, increased participation of marginalized groups, strengthened relationships with marginalized groups, and equitable allocation of resources/funds are a few examples of ways to embed social justice values into measurable outcomes (Klugman, 2010). It is essential that communities, including marginalized groups, be actively involved, and consulted throughout both the planning and development of policies/interventions, as well as evaluations (Klugman, 2010; Vang, 2019; Kosheleva, 2016; Lennie, 2006). This will ensure that the appropriate values are embedded in the evaluation design and create a strong baseline to measure progress.

The objective of the Food Systems Planning Evaluation Framework (Framework) is to: (i) map out potential future visions of the food systems in BC, including agricultural-related activities and social justice outcomes, and (ii) provide measures and metrics on how these future visions can be achieved and the degree to which these activities are successful in achieving desired outcomes. Based on the structure of a Logic Model, the Framework can be used by communities, organizations, and/or local governments to develop and implement new policies and interventions, as well as measure and monitor progress on existing efforts.

To improve and complete the Framework, there are several actions that are proposed. Namely, the Framework could be restructured and re-formatted to include a colour coding system by core theme area and a search function could be added to quickly identify desired outcomes and/or activities. The Framework could also be transitioned towards an online interactive tool to improve user experience and navigation of the Framework. Additionally, further discussions with communities and/or subject matter expert(s) related to the environmental, health, and equity core themes should be held to develop and refine the activities, outcomes, and performance indicators. This would be valuable as it would ensure that the activities and outcomes are relevant to the core issues and various contexts related to these themes, and that the performance indicators are realistic and measurable. Finally, consultations should be held with various communities across the province to verify and identify the current policies and interventions in place related to food systems and what kind of data is available, as well as test the functionality of the Framework once it has been refined and finalized.

Background

There is a broad spectrum of interventions used by local governments to address food systems related issues, which includes but is not limited to community gardens, boulevard gardens, farm stands, and urban agriculture. This broad spectrum results in complex and divergent sets of land-use legislation, policies and practices being employed by municipalities to address (or exacerbate) key issues facing their constituents (e.g., land dispossession, food insecurity, social isolation, community connectedness, social justice etc.). Food systems are also associated with a multitude of co-benefits related to common community objectives, such as providing green infrastructure for temperature and stormwater regulation, reducing greenhouse gas emissions from food transportation, supporting plant-pollinator relationships, etc. Some municipalities have created stronger, more supportive food systems policies and practices than others, and reasons for these successes include financial, human, and physical resources, municipal land base, political leadership, champions among local government staff, community-driven collective action, and non-profit sector vibrancy.

One of the most problematic policy areas for agriculture surrounds urban agriculture activities across municipalities. The policies and practices used by municipalities to support urban agriculture differ greatly and have various levels of adoption and support among municipalities. They cover a broad range of policies across different city departments, from planning, parks and recreation, engineering, and economic development. While some municipalities have a vision or suite of policies to support urban agriculture allow for policy adoption across departments, many municipalities do not. This has resulted in inequities across municipalities in BC; those with stronger supportive policies and those without.

In light of the COVID-19 global pandemic and recent extreme weather events that have resulted in the loss of life and impacted crop production, there is a need for integrated approaches to urban agriculture, as well as food systems, that recognize the complex and positive role urban agriculture and food systems can play in mitigating these vulnerabilities. This requires a series of intentional research projects that align and build off of each other to ensure equity is foundational to any further policy and practice development, urban agriculture is viewed by rural agriculture and the provincial government as an important intervention, and evaluation frameworks, policy implementation and long-term visions are integrated into urban foodland planning efforts.

Problem Statement

The evaluation of policies, programs and projects is an integral part of determining progress on sustainable, resilient, and equitable food systems (Blay-Palmer et al, 2019; Pérez-Escamilla et al,

2017). However, a key challenge remains developing appropriate and relevant indicators to measure, track, and document progress on social justice, particularly in the context of food systems planning (Blay-Palmer et al, 2019). The presence of multiple agencies (i.e. The Ministry of Agriculture and Ministry of Health, non-profit organizations, etc.) responsible and accountable for food systems policy results in disjointed efforts to address food systems related issues (Blay-Palmer et al, 2019; Candel and Pereira, 2017). The various sets of data and collection methods used across these agencies, compounded with isolated and independent monitoring and evaluation efforts, results in limited true understanding of whether policies, programs and interventions are meeting the needs of communities (Blay-Palmer et al, 2019). Moreover, limited data related to social justice measures further compounds the challenges in making progress towards achieving sustainable and equitable food systems. As a result, it is difficult to monitor and adjust policies, programs, or interventions to better meet the needs of the target population.

The purpose of this project was to identify key performance indicators and general inputs, outcomes, and outputs of intended agricultural activities and develop an evaluation framework based on the data set produced from the Public Health Association of BC's (PHABC) 2020 Urban Foodlands case studies. This research explored the following questions:

- (a) How can community food systems organizations evaluate progress on social justice?
- (b) What are the key performance indicators that can measure progress on food system outcomes?

Methodology

To complete this project, a comprehensive mapping exercise was completed in two phases: (i) literature review, and (ii) framework development and mapping. For Phase (i), a four-step approach was used to conduct the literature review on existing sustainable food systems frameworks, evaluation theories and approaches, and social justice evaluation practices and indicators. This approach included the following:

1. Identified key search terms and potential channels/sources (see Appendix A for the list of search terms);
2. Conducted the web search using Google;
3. Reviewed documentation; and
4. Saved and classified documentation in the research log (see Appendix B). The search terms and channels/sources were reviewed and updated as needed based on the findings and results.

The following criteria was used to determine whether to include or exclude the documentation as it was reviewed:

- **Type of literature:** documentation was included if it was a peer-reviewed article. However, some grey literature was included if peer-reviewed literature on the topic was also available to support it.
- **Geographic location:** documentation was included if the context and/or research was in Canada or the United States or was global in scope.
- **Language:** documentation was included if it was in English.
- **Relevancy:** documentation was included if it was deemed relevant to the research questions, including food security and systems, evaluations, and social justice.

For Phase (ii), a comprehensive analysis and mapping exercise was completed to develop the evaluation framework using Microsoft Excel. The evaluation framework structure was developed based on a Logic Model (Figure or Table insertion – even a chunk to see how this looks) structure and the data set of policy recommendations from the Urban Foodlands Case Studies report. Using the literature and theoretical frameworks identified in Phase (i), internet searches by core theme (e.g. Community Building, Economy, Education, Environment, Equity and Health) were conducted as needed to identify best practices and existing food policies and relevant interventions. These findings were used to support the development of the activities, outputs, outcomes, and performance indicators mapped against the data set of policy recommendations from the Case Studies analysis. Further information on the evaluation framework development and mapping exercise process can be found in the Evaluation Framework section on page 9.

The Framework is based on the structure of a Logic Model, which includes activities, outputs, and outcomes. A logic model is defined as a visual and structured way to illustrate relationships between the planned resources and activities and intended results from these (W.K. Kellogg Foundation, 2004). These are often used in monitoring and evaluation work to assess the progress and impacts of a given program in achieving its intended objectives (W.K. Kellogg Foundation, 2004).

Literature Review

Food Security and Governance

Food insecurity has been identified as one of the most urgent issues of the 21st century, the focus has long been on increasing production to achieve security rather than a systemic change of food systems (Cadieux and Slocum, 2015).

However, recent food related crises, such as widespread hunger, malnutrition, and food insecurity, rising incidence of obesity, environmental degradation, and food price instability, have demonstrated the importance of looking at food issues from more than strictly an agricultural lens (Margulis, 2013; Candel and Pereira, 2017). Overconsumption and the rapidly changing and unpredictability of weather due to climate change further highlights the importance of building a more resilient and sustainable food system. A significant transformation to integrated governance

structures and holistic policy approaches are required to better address the root cause of these complex food related issues and their structural limitations (Margulis, 2013; Candel and Pereira, 2017; Ruiz-Almeidaband Rivera-Ferre. 2019; Pérez-Escamilla et al, 2017).

In the context of local food security, community food security is defined as a “condition in which all community residents obtain a safe, culturally appropriate, and nutritionally sound diet through an economically and environmentally sustainable food system that promotes community self-reliance and social justice” (Hamm and Bellows, 2003; Sattano, Swisher and Moore, 2007). It is an approach to food security that ensures that the various factors impacting availability, cost, and quality of food for households within a community are considered (Winne, n.d., p2). This definition shifts away from the focus of food security on hunger and food production to a more holistic approach to achieve a sustainable food system (Sattanno, Switsher and Moore, 2007).

The food system includes numerous actors, elements and activities with complex relationships and sub-systems (FAO, 2018). The complexity of this system makes it particularly difficult to implement sustainable and effective interventions to improve food security and nutrition for the most vulnerable and marginalized. As a result, to achieve food security for all, a significant shift to

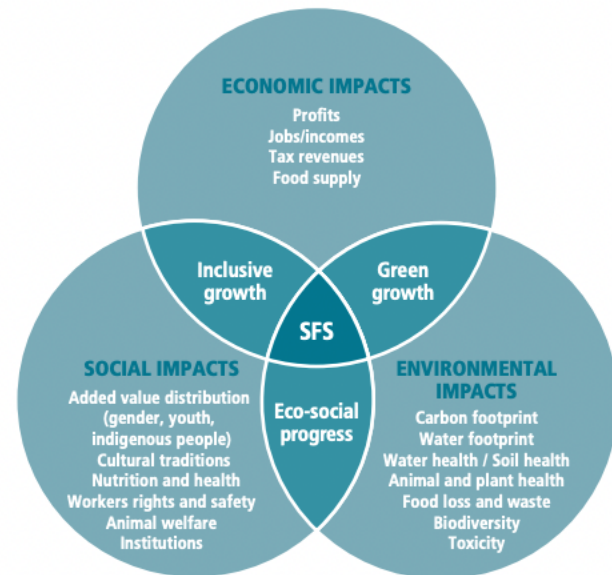


Figure 1 - Sustainable Food Systems (FAO, 2018)

sustainable food systems is required to reduce vulnerabilities, while also protecting the environment. Sustainable development, as defined in the Brundtland Report by the World Commission on Environment and Development and used by the United Nations' 2030 Agenda for Sustainable Development, is when the "needs of the present are met without compromising the ability of future generations to meet their own needs" (WCED, 1987). A three-pillar approach is used to frame this definition and includes the following intersecting considerations: social, environmental, and economic (Blay-Palmer et al, 2020; FAO, 2018). Figure 1 above illustrates the three (3) pillars and their intersecting components. The illustration demonstrates that when weighing any new food system related intervention, it should be assessed against all pillars to ensure that there are no adverse or negative effects (FAO, 2018). This strategy ensures that both inclusive and green growth can be achieved while also simultaneously promoting social and economic progress.

Given the set of complex and interconnected factors that touch food systems, scholars and experts argue that food systems transformation and associated policies and programs must have both an intersectional lens and be cross-cutting across fields. Candel and Pereira argue that food policy has historically been ineffective as often governments work in siloes and as a result, their efforts to address food systems issues are not successful (Candel and Pereira, 2017). These siloes create fragmented efforts to address food related issues without considering the complex and interrelated impacts of these issues and further creates a power imbalance between various interests (Candel and Pereira, 2017; Candel, 2016; Margulis, 2013). For example, although increasing access to food charity increases immediate access to food, it does not address the root cause of other key food security issues (i.e. high food prices, difficulty accessing fresh and nutritious foods in food deserts and low incomes of the most vulnerable). Significant restructuring of the current state of food policy would be required to improve the integration of food system efforts from a local/municipal led effort to a provincial/territorial and/or federal priority.

Sustainable Food Systems and Evaluation

Evaluation is an important tool in the context of sustainable food systems, as it provides governments and policymakers with the information needed to make informed decisions about policies, program, and interventions (Pérez-Escamilla et al, 2017; Blay-Palmer et al, 2019). However, evaluations require significant and various types of data to assess the multi-dimensional scope of food systems related issues at various levels, including federal, provincial/territorial, and municipal (Blay-Palmer et al, 2019). Although quantitative data is collected through various federal and provincial/territorial government efforts (e.g. Census of Canada, etc.), the data sets across provinces and territories are not linked to one another (Blay-

Palmer et al, 2019). Further, the qualitative data that is required to assess and understand the granular socio-economic factors impacting food security and systems requires significant resources (i.e. time and financial) and as a result, are not consistently and equally being collected across municipalities (Blay-Palmer et al, 2019). This lack of centralized data and coordinated evaluation efforts has made it difficult to establish baselines to measure progress against for monitoring and evaluating policies and programs. Policymakers and governments require specific indicators across the various disciplines to effectively assess all the various determinants that impact food security and systems. However, it is particularly challenging to develop indicators that specifically measure and capture the entire system construct as a whole (e.g. including all dimensions) (Pérez-Escamilla et al, 2017). The development of measurable indicators also requires expertise across various policy areas, which is particularly challenging when various government agencies are working in siloes (Blay-Palmer et al, 2019; Candel and Pereira, 2017).

Food systems experts have argued for the importance of using an interdisciplinary approach to assessing food systems to generate more fulsome knowledge on the interconnected issues of food systems (Blay-Palmer, 2019; Candel and Pereira, 2017; Ruben, Veergen and Plaisier, 2018). Specifically, Candel argued that should governments neglect to address the structural components and issues that lead to food security, they are not able to meaningfully contribute towards reducing food insecurity (Candel, 2014). Thus, multidisciplinary and coordinated approaches to food systems policy and evaluation across and within governments, as well as with external stakeholders and organizations, is paramount to make more informed and evidence-based policy decisions (Candel, 2014; Pérez-Escamilla et al, 2017). This further supports the importance of using a sustainable food systems framework when evaluating food systems, as it ensures that the various economic, social, and environmental considerations that impact food issues are reflected (Ruben, Verhagen and Plaisier, 2018; Blay-Palmer, 2019). Through this approach, shared knowledge between various fields is produced, which ultimately leads to stronger and more targeted policies and programs.

Food and Social Justice

In recent years, there has been a push across the industry that food security is not possible without considering and embedding social justice in the analysis and interventions targeted at improving these issues (Cadieux and Slocum, 2015; Allen, 2008; Bedore, 2010). In the context of community food security, social justice is defined as “the injustice of hunger and food insecurity” as well as “the adequacy of wages and working conditions for all those who earn their livelihoods from the food system” (Winne, n.d., p. 2). Advocacy for social justice includes three key interconnected values: (1) resources should be distributed equitably to ensure that all people can live a decent life; (2) all people have equal human rights, and their diversity should be

recognized; and (3) all people should be represented and be able to advocate for themselves on their own behalf (Klugman, 2010).

The field of food justice has emerged as a key player in this space, where it is defined as the “transformation of the current food system across four key interventions: inequity, exchange, land, and labour” (Cadieux and Slocum, 2015). By promoting the importance of equity and inclusion to bring about systemic change to the current food system, this movement distances itself away from the status quo of simply encouraging “local” systems and consumption to address inadequate and unjust access to food (Horst, 2017; Mares and Alkon, 2011; Wekerle, 2004; Born and Purcell, 2006; Bedore, 2010). The local trap is a term used to identify this issue and refers to the assumption that local food and systems are inherently better than a food system at the national or global scale (Born and Purcell, 2006). Although local food has its benefits, the context is equally as important to consider. It is essential to understand the actors, policies, culture, and priorities across the environmental, economic, and social pillars (see Figure 1 above) in order to promote a more just and sustainable food system (Born and Purcell, 2006). As a result, this further supports the importance of using a sustainable food system framework to ensure that social justice values are considered by policymakers and organizations.

Evaluation and Social Justice

Evaluation is an approach for organizations and governments to better understand the needs of communities and assess the degree to which interventions, programs and policies in place are effective (Vang 2019; Kosheleva, 2016). However, evaluations can often have unintentional negative impacts on communities, such as reinforcing power imbalances and stereotypes (Vang, 2019; Bawden, 2006). A key principle of evaluation work is that evaluators must remain objective and neutral (e.g. no presence of bias or prejudices), while also interpreting participants’ responses and their context(s) (Vang, 2019). All evaluators inherently have their own positionality to consider and as such, evaluations can be impacted by a variety of socio-economic factors (Vang, 2019; Kosheleva, 2016).

Social justice evaluation is a relatively new practice emerging to incorporate social justice values into evaluation work to promote methodological inclusiveness and equity principles and address some of the limitations of evaluations (Kosheleva, 2016; Thomas and Madison, 2010). This practice is defined as “seeking to increase understanding of the interdependency of individual, community, and society using a more judicious democratic process in generating knowledge about social problems and social interventions to advance social progress” (Thomas and Madison, 2010). This approach is founded on the principles of Participatory Monitoring and

Evaluation (PM&E)¹, which aims to forge equal partnerships between participants and the evaluator(s) and generate knowledge through evaluation that leads to positive change and action (Lennie, 2006; Vang, 2019). Through a bottom-up approach, participants play an active role in the design, implementation, decision-making, and interpretation of findings (Lennie, 2006; Vang, 2019). This approach ensures that trust is built between the participants and evaluator(s), and promotes mutual knowledge sharing, inclusivity and diversity, and critical thinking (Meterns, 2012; Vang 2019). Moreover, PM&E promotes the use of simple methods adapted to local contexts and sharing results quickly through the active involvement of community members (Vang, 2019; Narayan-Parker, 1993). This ensures transparency and accountability for results, while also increasing community engagement and long-term support of policies, programs, and interventions.

Social justice concepts are often qualitative in nature, which makes it difficult to evaluate their impacts without tangible and context specific outcomes and indicators. There has been growing research and literature related to this issue to develop strong approaches and improve the monitoring and evaluation of these types of efforts. Scholars and experts argue the importance of centering values and communities into outcomes and performance indicators to better evaluate social justice in the context of agriculture (Klugman, 2010, Vang, 2019; Kosheleva, 2016; Abi-Nader et al, 2009). According to the Community Food Security Whole Measures working group, this includes the numerous interconnected fields that play a role in sustaining a “healthy and whole community” (Abi-Nader et al, 2009). Outcomes such as increased organizational/community capacity, increased participation of marginalized groups, strengthened relationships with marginalized groups, and equitable allocation of resources/funds are a few examples of ways to embed social justice values into measurable outcomes (Klugman, 2010). It is essential that communities, including marginalized groups, be actively involved, and consulted throughout both the planning and development of policies/interventions, as well as evaluations (Klugman, 2010; Vang, 2019; Kosheleva, 2016; Lennie, 2006). This will ensure that the appropriate values are embedded in the evaluation design and create a strong baseline to measure progress.

Evaluation Framework

Objective

The objective of the Food Systems Planning Evaluation Framework (Framework) is to (i) map out potential future visions of the food systems in BC, including agricultural related activities and

¹ Examples of social justice-orientated evaluation frameworks used under the PM&E approach include: empowerment evaluation, transformative evaluation and culturally responsive evaluation. (Vang, 2019)

social justice outcomes, and (ii) provide measures and metrics on how these future visions can be achieved and the degree to which these activities are successful in achieving desired outcomes. The Framework can be used by communities, organizations, and/or local governments to develop and implement new policies and interventions, as well as measure and monitor progress on existing policies. There are six core themes that have been identified below from the Urban Foodlands Case Studies report (PHABC, 2021).

- **Community building:** Developing a sense of community and promoting community-led engagements for urban agriculture and food.
- **Economy:** Stimulating local economies, creating jobs, strengthening infrastructure, and raising incomes for farmers and workers across food systems.
- **Education:** Building skills and promoting knowledge sharing related to agriculture (i.e. farming practices, technology, conservation, etc.) and food (i.e. healthy diets, cooking, etc.).
- **Environment:** Promoting sustainability, reducing greenhouse gas emissions, and protecting the environment, including ecosystems, biodiversity, and air quality.
- **Equity:** Promoting inclusivity and diversity and protecting marginalized groups for more equitable food systems.
- **Health:** Promoting healthy eating practices, mental and physical health, and nutritious and culturally relevant diets.

The Framework

While this Framework is not based on a single program, the Logic Model was used to visualize how a given organization, community or local government can bring about policy changes and the links between their policies, activities, and inputs towards achieving intended outcomes. Rather than creating a separate table for the performance indicators (e.g. performance measurement framework), these were embedded directly in the Framework. This allowed for a single tool and document for the Framework, rather than two separate documents, which aims to facilitate the user experience.

Policy options were also included to provide tangible and specific examples of various policies and interventions that could be used to put into practice the activity and achieve the associated outputs and outcomes. This approach ensured that the valuable granularity of the data set was leveraged to provide examples of how a given activity could be implemented in various types of contexts. The following are key definitions for each of the Framework's components:

- **Activities:** The actions implemented to bring about desired change.
- **Outputs:** The direct product or service produced from the implemented activity.
- **Outcomes:** The short- and long-term changes that are expected as a result of the implemented activity.
- **Policy Options:** Examples of various policies and interventions that could be used to put into practice the activity to achieve the associated outputs and outcomes.

- **Performance Indicators:** The measures/metrics used to assess the degree to which an implemented activity has been successful in achieving the outcomes.

Development Process

With this objective and Framework in mind, the data set and thematic areas from the Urban Foodlands Case Studies of Kamloops, Vancouver and Victoria was used as the foundation for the Framework. This data set had six core themes: Economy, Education, Environment, Equity, Health, and Community Building, which informed the development of activities, outputs, and outcomes (PHABC, 2021). These core themes are also key components identified in the literature reviewed as being essential to achieve a sustainable and community food system and for values-based planning and evaluation (Centre for Whole Communities, 2009; Blay-Palmer et al, 2020; FAO, 2018). As expressed by the Community Food Security Whole Measures Working Group, the values-based fields are as follows: justice and fairness, strong communities, vibrant farms, healthy people, sustainable ecosystems and thriving economies (Abi-Nader et al, 2009). The table below illustrates the mapping of these fields to the core themes identified from the Urban Foodlands Case Studies analysis. These values and core themes were used to guide the development of associated outcomes, outputs, and performance indicators for the framework, as outlined in greater detail in the following section.

Core Themes (PHABC, 2021)	Values (Abi-Nader et al, 2009)
Community Building	Strong Communities
Education	
Economy	Thriving Local Economies Vibrant Farms
Environment	Sustainable Ecosystems
Equity	Justice and Fairness
Health	Healthy People

Figure 2 - Mapping of Core Themes and Values

The policy recommendations identified from the community dialogues in Kamloops, Vancouver and Victoria were organized by theme and used to develop the list of activities for the Logic Model. Each policy recommendation was reviewed and assessed to develop a general measurable “activity” that can be implemented in a wide range of contexts and locations. Any duplicated policy recommendations were grouped together to have one single activity encompassing the concept. Policy recommendations that were similar were also grouped under one single activity and the detailed and/or specific policy recommendations were included under the “Policy Options” column. The policy recommendations that were not measurable were removed from the Framework and logged in a separate Excel sheet within the document.

Subsequently, the outputs and outcomes were developed for each activity. Outputs such as food, jobs, and community food production, were common across activities. However, many activities required specific outputs for the context and type of activity. The outcomes were then developed based on both short- (e.g. within zero to three years) and long-term timelines (e.g. over three years) and range across various core themes. Each activity was assessed against all six of the core themes to identify whether it could lead to an outcome within each of the thematic areas. This was intended to ensure that activities lead to co-benefits, which maximize resources invested into interventions. The table below illustrates how a single activity is associated to multiple outcomes across themes.

Activity	Outcomes	Theme
Convert vacant lots to community growing spaces	Reduce the incidence of household food insecurity	Health
	Improve air quality in communities	Environment
	Reduce food miles	Environment
	Increase property values of communities	Economy
	Increase in community food production	Community Building
	Improve the understanding and knowledge of communities related to food and farming	Education

Figure 3 - Mapping of an Activity's Outcomes Co-Benefits

Challenges

While developing the Framework, there were numerous challenges. The following section outline these challenges and the key considerations with this project:

- Understanding of the current state of policies:** The data set available for this exercise was from consultations with communities of possible policy ideas and recommendations that could be implemented. While these ideas are a great starting point to develop the future visions of food systems, it does not include any information on the policies, programs and/or interventions currently in place. As a result, it was difficult to establish a baseline for the Framework, which is an important step to ensure that activities can be measured and monitored against. Additionally, for larger municipalities with more established and robust food policy, it would have been beneficial to include their policies and

interventions currently in place that have demonstrable results and data available. This would have strengthened the Framework to ensure that the activities included are relevant and realistic in achieving the targeted outcomes.

- **Specific policy recommendations:** Many of the policy recommendations from the data set were very specific to a given municipality’s context. As this Framework is intended to be provincial in scope, it was challenging to roll-up these policies to a more general activity that could be applied in a wide range of contexts. For example, under the Community Building and Economy themes, the data set included: Prioritize and resource foodland models that represent intentional community engagement and shared garden stewardship (“our garden” vs “my garden). Although this approach is important, it is difficult to apply to various contexts and measure consistently across local governments.
- **Vague policy recommendations:** Several policy recommendations from the data set were vague and not possible to measure. Given that the Framework is based on a logic model structure, it was important that the activities included could be measured through performance indicators. For example, the data set included “coordinating neighbourhood crops” under the Economy theme and “celebrate effective community food projects” under the Community Building theme. These recommendations did not include sufficient information to identify a concrete and measurable activity.
- **Technical policy expertise:** In certain core themes, it was difficult to develop realistic and relevant outcomes and performance indicators given the lack of expertise in some policy areas. This was namely a challenge for the environment theme, given that technical knowledge in areas such as composting, air quality and greenhouse gas emissions was required.
- **Data availability at the local government/provincial level:** The case studies analysis and data set available does not include any information on the type and quality of data that is available from local governments. This made developing measurable activities, outcomes, and performance indicators particularly challenging. At this stage, it was unknown whether there would be sufficient data and/or resources available to monitor and measure the implementation of the Framework across all local governments.
- **Distinguishing between local government policies and provincial policies:** Given the target audience of the Framework are local governments and community organizations, it was essential that the activities developed could be implemented at the local level. Although the regional level was an important consideration when looking at performance indicators and the availability of data, the focus on local government policies restricted the types of activities that could be included in the Framework.

- **Structure limitations and the duplication of activities:** A key focus of the Framework was to develop activities that can achieve numerous outcomes across multiple core themes to promote multi-functionality. However, the current structure in Excel made it that activities were duplicated across core themes. This could be confusing for readers who are not familiar with the Framework and its purpose. The duplication could also lead to inconsistencies in content across core themes without a thorough review and verification of alignment.
- **Elimination of the Health theme:** Although this is an important theme, the list of policy recommendations from the consultations did not generate any specific policies that were not included in the other core themes. This resulted in a gap in activities and outcomes for this theme within the Framework.

Recommendations

The following section outlines the key recommendations to improve and complete the Framework.

- **Framework Structure:** To improve the Framework and maximize its reach and benefits for users, several adjustments could be made to the structure. Firstly, the Framework's outcomes should be organized by theme, as an activity typically has multiple outcomes across various core themes. Although this would result in duplicated activities under each of the core themes, it would allow the user to easily and quickly identify all activities that produce a given outcome. A search function could also be included in the home page to filter the activities by outcomes. Finally, a colour coding system for the core themes could be created for readers. A colour could be assigned to each of the core themes in the Framework and applied to each outcome for the reader to quickly identify the nature of the activity's outcomes.
- **Platform/Digital Options:** Given the objective of the Framework and its structure, an interactive user-friendly tool would be beneficial. Developing an application which would allow the user to select their desired core themes and drill down on the activities, its policy options and performance indicators would visualize the logic model flow, while also improving the users experience of the tool.
- **Health Theme:** Given that the consultations with communities did not generate any specific policies for the health theme, further discussions and research for activities related to health would be beneficial. Subject matter experts on health could be consulted as well to gather this information. Embedding health outcomes and considerations into the Framework would strengthen the Framework, while also promoting the importance of nutrition and health for a more sustainable food system.

- **Subject Matter Expertise:** Work with subject matter expert(s) on environmental and climate change policy to develop the activities, outcomes and performance indicators related to the environment theme. This would be valuable as it would ensure that the activities and outcomes are relevant to the core issues and various contexts related to climate change and the environment and that the performance indicators are realistic and measurable and that the performance indicators are realistic and measurable. Discussions with subject matter expert(s) will also ensure that the appropriate climate change considerations are embedded in the tool.
- **Next Steps:**
 - a. **Consultations with Communities:** Host consultations with a representative sample of various communities across the province (e.g. major cities and smaller local governments) to verify and identify the current policies and interventions in place related to food systems and what kind of data is available to measure the progress of the activities and outcomes from the Framework. Should limited data and resources be available, the consultations should discuss what would be required to acquire and/or collect the necessary data to implement and measure the activities and apply the Framework.
 - b. **Performance Indicators:** The performance indicators should be finalized and adjusted based on the findings from the additional consultations to ensure that the Framework. This will ensure that they can be used appropriately by communities and achieve their purpose to measure the desired outcomes.
 - c. **Incorporate an Equity Lens:** With the findings from the equity workshops that occurred during the Summer 2022 Sustainability Scholars Planning for Future Food Systems in BC project, an integrated equity lens should be applied to the activities and outcomes. This includes both refining the current list of activities and outcomes to ensure that the equity component is considered, as well as developing specific activities and outcomes for this core theme if required. Discussions with subject matter expert(s) and additional workshops with community organizations may be needed to continue to refine this component of the Framework.
 - d. **Testing:** Once the draft Framework has been refined, a second round of consultations should be held with a sample of communities to test the functionality of the Framework. The objective of these consultations should be to ensure that the Framework can be used by planners, policymakers, and food systems experts to improve food systems across the province.

Appendix A – Search Terms

To complete the literature review, the following search terms were used:

Food Security and Governance:

- “Food security governance”
- “food security” and “governance”
- “Food systems governance”
- “Community food security”
- “Food sovereignty”
- “Urban agriculture” and “governance”

Sustainable Food Systems:

- “Sustainable food systems”
- “Sustainable food systems” or “Food security”
- “Sustainable food systems frameworks”

Social Justice:

- “Food security” and “Social justice”
- “Food systems” and “Social justice”
- “Social justice evaluations”
- “Social justice” and “evaluations”

Evaluations:

- “Logic model”
- “Monitoring and evaluation approaches”
- “Food systems” and “Evaluations”
- “Sustainable food systems” and “Assessments”
- “Food systems” and “Frameworks”
- “Food systems evaluation challenges”
- “Food systems evaluation framework”

Appendix B – Research Log

The following table is the Research Log used to log and track reviewed documentation by literature theme:

Literature Theme	Ref. No	Literature
Food Security and Governance	1.1	Blay-Palmer, A., Conaré, D., Meter, K., Di Battista, A., & Johnston, C. (Eds.). (2019). Sustainable Food System Assessment: Lessons from Global Practice (1st ed.). Routledge. https://doi.org/10.4324/9780429439896
	1.2	Cadieux, K. V. and Slocum, R. (2015). What does it mean to do food justice? College of Liberal Arts All Faculty Scholarship. Paper 3. Retrieved from: http://digitalcommons.hamline.edu/cla_faculty/3
	1.3	Candel, J. J. L. (2016). Putting food on the table : The european union governance of the wicked problem of food security (Order No. 28233459). Available from ProQuest Dissertations & Theses Global. (2564078649). Retrieved from https://www.proquest.com/dissertations-theses/putting-food-on-table-european-union-governance/docview/2564078649/se-2
	1.4	Candel, J. J.L. and Pereira, L. (2017) Towards integrated food policy: Main challenges and steps ahead. Environmental Science & Policy, 73, 89-92. ISSN 1462-9011. https://doi.org/10.1016/j.envsci.2017.04.010
	1.5	Food and Agriculture Organization (FAO). (2018). Sustainable Food Systems: Concept and Framework. Retrieved from: https://www.fao.org/3/ca2079en/CA2079EN.pdf
	1.6	FAO. (2014). Developing sustainable food value chains – Guiding principles. Rome. Retrieved from: https://www.fao.org/3/i3953e/i3953e.pdf

Literature Theme	Ref. No	Literature
Food Security and Governance	1.7	Garrett, S. and Feenstra, G. (2002). Growing a Community Food System. Western Regional Extension Publication. Retrieved from: https://foodsecurecanada.org/sites/foodsecurecanada.org/files/GrowingACommunityFoodSystem.pdf
	1.8	Hamm, M. W. and Bellows, A. C. (2003) Community Food Security and Nutrition Educators. Journal of Nutrition Education and Behavior, 35(1), 37-43, ISSN 1499-4046, Retrieved from: https://doi.org/10.1016/S1499-4046(06)60325-4
	1.9	Margulis, M. E. (2013). The Regime Complex for Food Security: Implications for the Global Hunger Challenge, Global Governance: A Review of Multilateralism and International Organizations, 19(1), 53-67. doi: https://doi.org/10.1163/19426720-01901005
	1.10	Sattanno, K., Swisher M.E., and Moore, K.N.. (2007). Defining Community Food Security. University of Florida – IFAS Extension. Retrieved from: https://edis.ifas.ufl.edu/pdf%5Carchived%5CWC%5CWC064%5CWC064-11403521.pdf
	1.11	Winne, M. (n.d.). Community Food Security: Promoting Food Security and Building Healthy Food Systems. Retrieved from: https://www.hungercenter.org/wp-content/uploads/2011/07/Community-Food-Security-Mark-Winne.pdf
	1.12	World Commission on Environment and Development (WCED). (1987). Our Common Future. Oxford: Oxford University Press. ISBN 019282080X. Retrieved from: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

Literature Theme	Ref. No	Literature
Food and Social Justice	2.1	Allen, P. (2008) Mining for justice in the food system: perceptions, practices, and possibilities. <i>Agric Hum Values</i> 25, 157–161. https://doi.org/10.1007/s10460-008-9120-6
	2.2	Bedore, M. (2010), Just Urban Food Systems: A New Direction for Food Access and Urban Social Justice. <i>Geography Compass</i> , 4: 1418-1432. https://doi.org/10.1111/j.1749-8198.2010.00383.x
	2.3	Born, B., & Purcell, M. (2006). Avoiding the Local Trap: Scale and Food Systems in Planning Research. <i>Journal of Planning Education and Research</i> , 26(2), 195–207. https://doi.org/10.1177/0739456X06291389
	2.4	Cadieux, K. V. and Slocum, R. (2015). What does it mean to do food justice? College of Liberal Arts All Faculty Scholarship. Paper 3. Retrieved from: http://digitalcommons.hamline.edu/cla_faculty/3
	2.5	Horst, M. (2017) Food justice and municipal government in the USA, <i>Planning Theory & Practice</i> , 18:1, 51-70. Retrieved from: https://doi.org/10.1080/14649357.2016.1270351
	2.6	Klugman, B. (2010). Evaluating Social Justice Advocacy: A Value Based Approach. Centre for Evaluation Innovation. Retrieved from: https://www.evaluationinnovation.org/wp-content/uploads/2010/08/Klugman-Brief.pdf
	2.7	Mares, T. & Alkon, A. (2011). Mapping the Food Movement: Addressing Inequality and Neoliberalism. <i>Environment and Society: Advances in Research</i> . 2. 68-86. Retrieved from: https://www.researchgate.net/publication/233656554_Mapping_the_Food_Movement_Addressing_Inequality_and_Neoliberalism

Literature Theme	Ref. No	Literature
Food and Social Justice	2.8	Wekerle, G. R. (2004). Food Justice Movements: Policy, Planning, and Networks. <i>Journal of Planning Education and Research</i> , 23(4), 378–386. https://doi.org/10.1177/0739456X04264886
	2.9	<u>Winne, M. (n.d.). Community Food Security: Promoting Food Security and Building Healthy Food Systems. Retrieved from: https://www.hungercenter.org/wp-content/uploads/2011/07/Community-Food-Security-Mark-Winne.pdf</u>
Evaluations	3.1	Bawden, R. (2006). A systemic evaluation of an agricultural development: A focus on the worldview challenge. In B. Williams & I. Iman (Eds.), <i>Systems concepts in evaluation</i> (pp. 35- 46). Point Reyes, CA: Edge Press of Inverness. Retrieved from: https://www.alnap.org/system/files/content/resource/files/main/system_concepts_in_evaluation.pdf
	3.2	WK Kellogg Foundation. (2006) Logic model development guide [Internet]. Detroit, MI: W.K. Kellogg Foundation. Available from: https://hmstrust.org.au/wp-content/uploads/2018/08/LogicModel-Kellogg-Fdn.pdf
	3.3	TBS (2010). Supporting Effective Evaluations: A Guide to Developing Performance Measurement Strategies. Canada.ca. Retrieved from https://www.canada.ca/en/treasury-board-secretariat/services/audit-evaluation/centre-excellence-evaluation/guide-developing-performance-measurement-strategies.html#LogicModelCont
	3.4	Ontario Agency for Health Protection and Promotion (Public Health Ontario), Abdi S, Mensah G. (2016) Focus On: Logic models-a planning and evaluation tool. Toronto, ON: Queen’s Printer for Ontario. Retrieved from: https://www.publichealthontario.ca/-/media/documents/f/2016/focus-on-logic-model.pdf?sc_lang=en

Literature Theme	Ref. No	Literature
Evaluations	3.5	Global Affairs Canada (GAC) (2017). Results-Based Management Tip Sheet 3.1 – Selection of Performance Indicators by Level of Outcome. GAC. Retrieved from https://www.international.gc.ca/world-monde/funding-financement/rbm-gar/tip_sheet_3_1-fiche_conseil_3_1.aspx?lang=eng&_ga=2.24490234.1914723061.1653688939-1936536280.1653688939
Social Justice Evaluations	4.1	Abi-Nader, J. et al (2009). Whole Measures for Community Food Systems : Values-Based Planning and Evaluation. Centre for Whole Communities. Retrieved from: http://foodsecurity.org/pub/WholeMeasuresCFS-web.pdf
	4.2	Hood, S., Hopson, R.K. and Kirkhart, K.E. (2015). Culturally Responsive Evaluation. In Handbook of Practical Program Evaluation (eds K.E. Newcomer, H.P. Hatry and J.S. Wholey). https://doi.org/10.1002/9781119171386.ch12
	4.3	Kosheleva, Natalia. (2016). Methodologically Inclusive Transformative Evaluation as an Enabler of Social Inclusion. International Organization for Cooperation in Evaluation. Retrieved from: https://webarchive.unesco.org/web/20170529234033/http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SHS/pdf/Workshop-Social-Inclusion_IOCE.pdf
	4.4	Lennie, J. (2006). Increasing the rigour and trustworthiness of participatory evaluations: Learnings from the field. Evaluation Journal of Australasia, 6(1), 27–35. https://doi.org/10.1177/1035719X0600600105
	4.5	Mertens, Donna. (2012). Transformative Mixed Methods: Addressing Inequities. Journal of Research in Crime and Delinquency. Retrieved from: https://journals.sagepub.com/doi/abs/10.1177/0002764211433797

Literature Theme	Ref. No	Literature
Social Justice Evaluations	4.6	Narayan-Parker, Deepa. (1993) “Participatory Evaluation, Tools for Managing Change in Water and Sanitation.” Organisational Learning Participatory Methods. Retrieved from: www.participatorymethods.org/resource/participatory-evaluation-tools-managing-change-water-and-sanitation
	4.7	Schrag, R.V. (2018). Program Evaluation for Social Justice. Retrieved from: https://taasaconference.org/wp-content/uploads/2018/06/40-TAASA-2018-Program-Evaluation-for-Social-Justice.pdf
	4.8	Thomas, V. G., & Madison, A. (2010). Integration of Social Justice Into the Teaching of Evaluation. American Journal of Evaluation, 31(4), 570–583. https://doi.org/10.1177/1098214010368426
	4.9	Vang, K. (2019). Exploring Social Justice-Oriented Evaluations. Congressional Hunger Center. Retrieved from: https://www.hungercenter.org/wp-content/uploads/2019/03/HFCR-Final.pdf
Food Systems Assessments/Frameworks	5.1	Blay-Palmer, A., Conaré, D., Meter, K., Di Battista, A., & Johnston, C. (Eds.). (2019). Sustainable Food System Assessment: Lessons from Global Practice (1st ed.). Routledge. https://doi.org/10.4324/9780429439896
	5.2	Frank, R., Mock, N., Cogill, B., Bailey, L., and Kenefick, E. (1999). Food Security Indicators and Framework for Use in the Monitoring and Evaluation of Food Aid Programs. Arlington, Va: Food Security and Nutrition Monitoring Project (IMPACT), ISTI, Inc., for the U.S. Agency for International Development. Retrieved from: https://pdf.usaid.gov/pdf_docs/Pnacg170.pdf

Literature Theme	Ref. No	Literature
Food Systems Assessments/Frame-works	5.3	Institute of Medicine & National Research Council. (2015) Review of A Framework for Assessing Effects of the Food System. The National Academies Press, Washington, D.C. http://dx.doi.org/10.17226/18846 .
	5.4	Lederer, J. (2008). Community Food Action Initiative Evaluation (2005-2006). Public Health Services Authority. Retrieved from: http://www.bccdc.ca/pop-public-health/Documents/communityfoodactioninitiativeevaluation20052006.pdf
	5.5	Miewald, C. (2009). Community Food System Assessment: A Companion Tool for the Guide. Centre for Sustainable Community Development. Retrieved from: http://www.bccdc.ca/pop-public-health/Documents/communityfoodsystemassessmentacompaniontoolfortheg.pdf
	5.6	Ruiz-Almeida, A. and Rivera-Ferre, M.G. (2019). Internationally-based indicators to measure Agri-food systems sustainability using food sovereignty as a conceptual framework. <i>Food Sec.</i> 11, 1321–1337.. https://doi.org/10.1007/s12571-019-00964-5
	5.7	Ruben, Ruerd & Verhagen, Jan & Plaisier, Christine. (2018). The Challenge of Food Systems Research: What Difference Does It Make?. <i>Sustainability.</i> 11. 171. 10.3390/su11010171 .
	5.8	Pérez-Escamilla, R., Gubert, M. B., Rogers, Beatrice., and Hromi-Fiedler, A. (2017). Food security measurement and governance: Assessment of the usefulness of diverse food insecurity indicators for policy makers, <i>Global Food Security</i> , Volume 14, 96-104. Retrieved from: https://www.sciencedirect.com/science/article/pii/S2211912417300494#bib7

Literature Theme	Ref. No	Literature
Food Systems Assessments/Frame-works	5.9	Candel, J.J.L. (2014). Food security governance: a systematic literature review. Food Sec. 6, 585–601. https://doi.org/10.1007/s12571-014-0364-2

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WK Kellogg Foundation. (2006) Logic model development guide [Internet]. Detroit, MI: W.K. Kellogg Foundation. Available from: <https://hmstrust.org.au/wp-content/uploads/2018/08/LogicModel-Kellog-Fdn.pdf>