Final Research Report

October 15, 2024

Boundary Food Systems Inventory and Assessment

Understanding the Needs and Opportunities for Producers and Processors in the Boundary Region

Overview

This Boundary Food Systems Inventory and Assessment, conducted between May and August of 2024, focuses on the food producers and processors within the Boundary region. In collaboration with the Regional District of the Kootenay Boundary (RDKB), the Boundary Community Ventures Assn. (BCVA) and Selkirk Innovates, this report aimed to identify existing agricultural businesses in the region and their characteristics; to assess the challenges and needs of food producers and processors in the region and support their growth through understanding of these challenges. Through a survey and one-on-one semi-structured interviews, the study collected data on business characteristics, awareness of the BCVA Food Hub programs, needs, and key challenges and opportunities. We learned that transportation and distribution are challenges for many businesses in the Boundary region, with an emphasis on the high cost of transportation as well as the limited transportation options. The need for a commercial processing space was noted by a significant number of producers and processors, who said they lack access to commercially inspected processing spaces and equipment, which are necessary for scaling up. The majority of participants expressed interest in scaling up, specifically with interest in accessing broader markets, improving marketing and strengthening distribution networks. The insights generated from this report will inform future opportunities for the BCVA Food Hub to support local food producers and processors and strengthen regional food systems. Recommendations from this report center on increasing engagement with the BCVA's Food Hub programs and addressing logistical barriers related to transportation and distribution to better serve the local food system.

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Introduction

Background and Scope

In the spring of 2024, the Regional District of the Kootenay Boundary (RDKB), Boundary Community Ventures Assn (BCVA), who operate the Boundary Food Hub, and Selkirk Innovates collaborated to create a survey with the goal of better understanding the needs of the producers and processors in the Boundary region and using the data to inform future opportunities for the Food Hub. This project took place from May 2024 until August 2024.

Project Purpose and Importance

The purpose of this project was to understand what food and agricultural businesses exist in the Boundary region and what their characteristics are. We also wanted to know what the perceived challenges and needs of businesses were, if they wanted to scale up, and how the BCVA might be able to support the producers and processors and address common challenges and needs.

The RDKB is made up of two regions (the South Kootenay and the Boundary); and due to economic and environmental factors, the two regions are distinct. This project primarily focuses on the Boundary region. This study was conducted to understand the needs and opportunities of the producers and processors in the Boundary region. The study was driven by a gap in understanding of not only the demographics of producers and processors in the region but also the current needs and the challenges they face, and thus how to meaningfully meet their needs in a way that will promote regional food security[1].

In order to address regional food security in the Boundary, it is essential to improve our understanding of how localized food production and processing can better serve the region, necessitating understanding both needs and challenges. For example, within the Boundary region, the BCVA has identified the many small processors in the region that have the potential to scale up[2] (RDKB, 2018a; RDBK, 2018b), however further detail is required to understand how to best enable businesses to scale up. Processors in the region also face challenges in scaling up; one notable challenge is in the form of dependable, affordable transportation. The challenge of transportation and distribution has been repeatedly noted by multiple sources as a challenge to agricultural production in the region (Anderson, Brynne & Davies, 2019).

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[1] The Boundary Food Security Backgrounder uses the BC Centre for Disease Control's outlined goals of food security as "increase[ing] physical, social, and economic access to nutritious, safe, personally acceptable food with a focus on increasing availability of healthy food produced in a sustainable manner" (RDKB, 2018b).

[2] For the purposes of this project we defined scaling up based on the Investment Agriculture Foundation of BC's Small Food Processor Scale-Up Program, "increasing production and/or selling into new markets. This includes the tools and resources needed to increase production and sell to broader markets (e.g., new equipment, training, etc.)." (IAF, 2024).

The knowledge gaps related to services highlighted above raised questions related to who is producing what, how many producers exist, and what scale they are and could be producing at. There is also missing information related to the demographics of producers. Understanding local producers' needs and challenges will benefit a variety of audiences in addition to the BCVA and Boundary Food Hub, including the agricultural, meat, and dairy sectors, local markets, and the general public living in the jurisdiction of the Boundary. By addressing information gaps we aim to better support producers and address challenges.

This research project was designed to support the goals of the Boundary Area Food and Agriculture Plan (2018). Notably, the goals of improving local food and agriculture support services and infrastructure; stewarding connections between environmental sustainability and the regional food and agricultural system; supporting multigenerational and emerging farmers; strengthening awareness of and skills in the local food and agricultural system; and increasing capacity and leadership.

Methodology

Timeline and Activities

We wrote and revised the survey in early May 2024 and the survey was approved by the Selkirk College Research Ethics Board (REB 2024 - 007). The survey was developed in collaboration with the Boundary Community Ventures Assn and Selkirk College, Selkirk Innovates. Selkirk Innovates provided insight into survey development, background research and the REB application, while BCVA gave insight into what would provide the most help to producers and processors in the region.

We developed an inventory of existing producers and processors in the Boundary region. This inventory was compiled based on publicly available information such as business name, location of business, business outputs, and contact information. This inventory was created a baseline understanding of the existing number of regional businesses, helping us identify the size of the business sector, as well as communication details we could use to distribute the survey. Our recruitment consisted of phone calls to key businesses in the area, to invite them to participate in a semi-structured interview, and emails to all businesses in the area to invite them to take our survey. The survey had an option for a follow up interview as well.

The survey was open from mid-June until the first week of August. Along with the survey, we conducted qualitative, semi-structured interviews with key informants and those who wished to elaborate on their responses from the survey. As part of the research process, the Selkirk Innovates research intern went to the Grand Forks Farmer's Market to inform potential respondents of the survey, meet producers and processors in the region, and observe, speak to, and listen to vendors at the marker's experiences, challenges, and opportunities. These will support the survey's findings throughout this report.

Respondent Population

In total, 38 people responded to the survey. We screened the survey responses to remove respondents who did not fit the eligibility criteria (see appendix for the disqualification questions). Of the 38 people who responded to the survey, 28 of the respondents fit our criteria, 12 were producers and 16 were processors. Additionally, the identifiers for interview participants (e.g., Interviewee A) have been randomized to protect participant anonymity.

In addition to the 28 respondents that did not fit our criteria, three responses did not fit into our criteria, specifically, they were not producers nor processors, however, they were engaged in issues related to the Food Hub's projects, and were deemed relevant for certain questions (e.g., challenges related to transportation), and removed for others (e.g., the number of employees, or producer-specific challenges).

Analysis

Once the survey was closed, we exported the raw data from SurveyMonkey into Excel and cleaned the data. The cleaning process ensured the accuracy of the results by filtering incomplete surveys out of the data set, removing duplicates, and standardizing the formats of responses, which facilitated data analysis. We used the qualitative analysis computer software, NVivo, to identify themes in the interview transcripts and open-ended survey responses. These emergent themes were identified through an iterative coding process, starting with initial themes identified from the survey, and iteratively adding themes that were prevalent in the interviews. We used the NVivo results to compare the qualitative themes with the survey results.

Results

We analyzed results of the respondent's needs, and challenges, and explored areas of key interest of the producers and processors of the region. This section begins with an overview of respondent demographics and their awareness of existing BCVA programs, and is then divided by topic, based on the prominent overarching themes identified through the survey, interviews, and participant observation.

Respondent Demographics and the Boundary Producer and Processor Landscape

Of the 31 respondents (including 3 that did not fit into criteria but were deemed relevant), 28 of the respondents fit our criteria: 12 were producers and 16 were processors.

Location: Our survey focused on producers and processors located in the Boundary region (see Figure 1). This study area is the same area as the Boundary Food Security Backgrounder Report (2018). Respondents were from across the study region. The largest geographic representation of respondents was from Area ‘D’, Rural Grand Forks (35%). The next largest representation was from Grand Forks (27%), and the third most prominent geographic representation was Area ‘E’, West Boundary (23%).

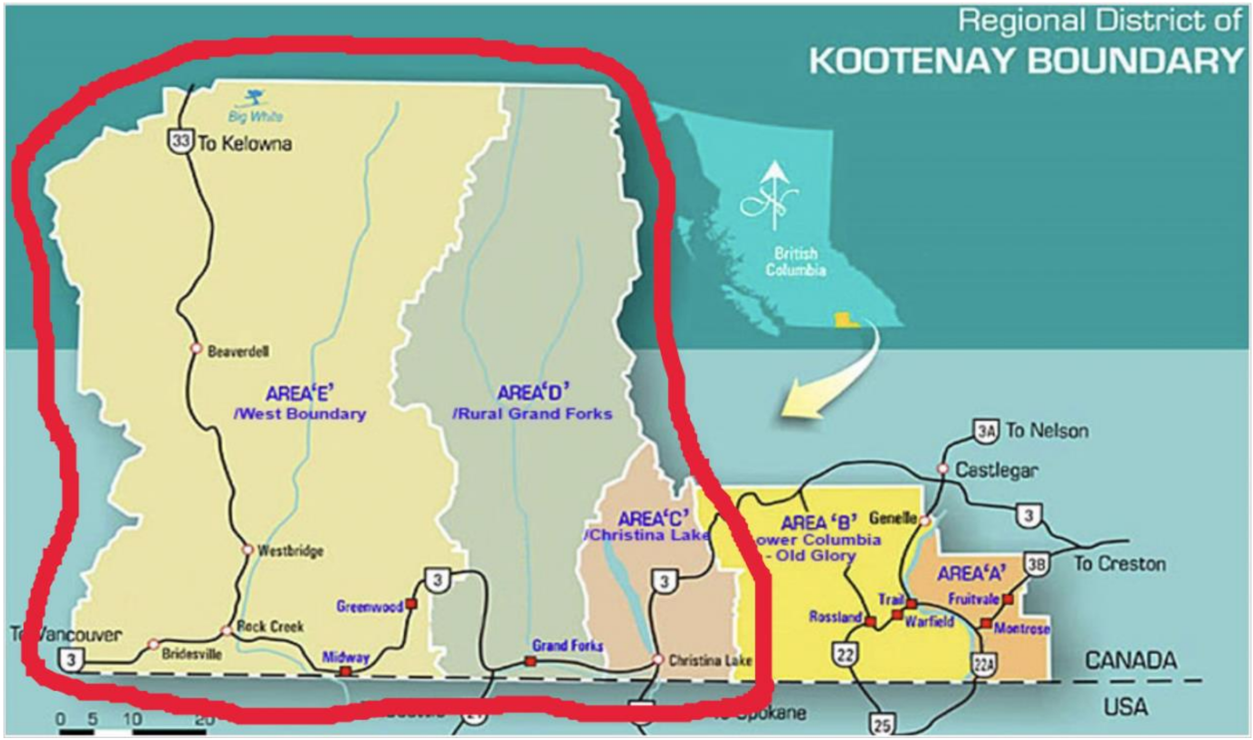

Figure 1. Study Area

Sales: The majority (74%, or 17) of respondents sold their products directly to consumers in the Boundary, whether at farmers markets, or farmgates. The next most prevalent distribution channel was divided equally among four categories – first, to retailers in the Boundary Region (30%), direct to consumers in the Kootenay Region (30%), to retailers in the Kootenay Region (30%), and lastly, direct to consumers in the Okanagan region (30%). For the purposes of the survey and this report, the Boundary Region refers to Areas ‘C’. ‘D’. and ‘E’, and the municipalities of Grand Forks, Greenwood and Grand Forks as seen in Figure 1, and the ‘Kootenay Region’ refers to the rest of the Kootenay Geographic Area. These numbers indicate that the majority of transactions are direct to consumers.

Employment: The respondents averaged 2 full-time employees based on the last year’s employment numbers. They averaged 2 part-time employees, 1 casual, and 1 seasonal, following last year’s employment numbers as a point of reference. These numbers indicate the relatively small businesses that are present in the producing and processing sector of the Boundary. With most producers or processors in the survey having less than 5 full time employees, which indicates that 100% of the respondents’ businesses are considered small businesses according to the BC government definition (Ministry of Citizen’s Service & Ministry of Jobs, Economic Recovery and Innovation, 2020).

Awareness of the BCVA Projects

The survey was conducted to better understand the needs of the producers and processors in the Boundary, and to understand the opportunities for the Boundary Food Hub to support producers and processors in the region. Respondents were asked about their awareness of the six major BCVA Food Hub projects.

The BCVA Food Hub is a suite of facilities and services that will enable food producers and processors to reach commercial, retail and institutional markets both inside and outside of the Boundary Region. The Food Hub is operated by the BCVA. The Boundary Food Hub is one of the regional food processing and innovation hubs funded by the Ministry of Agriculture. It serves the City of Greenwood, the Village of Midway and the City of Grand Forks, as well as three electoral areas (Area C – Christina Lake, Area D – Rural Grand Forks, and Area E – West Boundary). It is the only Food Hub with a focus on meat. As seen in Figure 2, respondents were given 4 options to categorize their awareness of each BCVA Food Hub project. Within this table, the option of 'Not Applicable' was provided, however there were no contextualizing factors to the response of not applicable, beyond the option to engage in a follow-up, one-on-one interview.

	AWARE OF	ARE/WILL BE INVOLVED	WOULD LIKE TO BE INVOLVED	NOT APPLICABLE	TOTAL
Planning Stage - Distribution mapping project (Grow & Connect Interior) – platform showing where, when, and how food is distributed and identifying opportunities for reducing transportation costs.	47.83% 11	13.04% 3	26.09% 6	13.04% 3	23
Proposed - Food processing space (Grand Forks) – shared value added processing area for rent. Pop up retail options.	36.36% 8	9.09% 2	31.82% 7	22.73% 5	22
Construction fall 2024 - Meat processing facility (Rock Creek) - includes cut and wrap, value added processing, rentable freezer space.	63.64% 14	9.09% 2	4.55% 1	22.73% 5	22
Operational - Reefer trailer rentals – 3 rentable reefer trailers, one with rails for hanging meat.	54.17% 13	4.17% 1	0.00% 0	41.67% 10	24
Operational - Food Recovery Program - recovery, processing, and distribution of unsold food that would otherwise go to waste.	34.78% 8	21.74% 5	8.70% 2	34.78% 8	23
Feasibility Study - Boundary Heritage Grain Project - this project seeks to redevelop and expand grain production and processing in the Boundary	39.13% 9	4.35% 1	21.74% 5	34.78% 8	23

Figure 2. Awareness of Food Hub Programming

Project #1: Grow and Connect Interior

Grow and Connect Interior is a collaborative project between the Boundary Community Ventures Assn, the Kamloops Food Policy Council, the Central Kootenay Food Policy Council, and other organizations. Grow and Connect is a platform showing where, when, and how food is distributed. The platform aims to create opportunities for collaboration, reduce transportation costs, and act as a tool to visualize your place in the food system. It is a tool that helps create a unified platform that reduces barriers to collaboration and promotes inclusivity in the food industry. For more information about Grow and Connect Interior, follow this link to view the platform: https://foodsupplychain.ca/

46% of the respondents were aware of the platform, 12% are or will be involved in the project, 31% would like to be involved, and 12% deemed it not applicable to their business. Participants spoke about their interest in the project in the interviews and further explained solutions they have tried to facilitate transportation, distribution and aggregation in their businesses. Some explained they negotiated rates with Canada Post for small businesses, while others explained they shared transportation costs. Despite this, access to and cost of transportation and distribution services to market remained the highest-ranked transportation-related challenges. This data indicates that the Grow and Connect platform would be helpful for respondents in the region to ease the burden of the high cost of transportation and to facilitate broader distribution for more businesses.

Project #2 Grand Forks Food Processing Space

The next Food Hub project that we asked participants about was the Grand Forks Food Processing Space. This processing facility is a planned project of the Food Hub, with three planned sections of the facility. First, a shared value-added area for hourly or daily rental (e.g., canning, bottling, soup making, dehydrating, freezing); next, a retail space available for long-term lease; and lastly, a pop-up café for daily rental.

33% of the respondents were aware of this project; 8% stated they are or would be involved in it; 38% of respondents stated they would like to be involved, making this project the one with the highest interest in involvement; and 21% considered it not applicable.

Those who were aware of this facility explained how they thought it would be useful to their business in the future. The use of processing space will be discussed later in the report.

Project #3 Meat Processing Facility (in Rock Creek)

A meat processing facility in Rock Creek is in the planning stage, with hopes to start construction in the fall of 2024. The facility will be divided into three sections: (1) a cut and wrap space leased to an anchor tenant, and (2) a shared commercial food processing space available for short-term rental, and (3) reefer trailer storage and shared freezer space. The shared commercial space will include a “multi-use thermal enclosed unit”, which can be used for smoking, baking, roasting, drying, steaming and fermenting.

67% of respondents were aware of this program, making the Meat Processing Facility the project with the most respondent awareness. 8% of the respondents are or will be involved; 4% would like to be involved; and 21% considered this project to not apply to their business.

Project #4 Reefer Rental Trailers

Purchased in 2021, two reefer trailers are available to rent, to get processor's products to and from processing facilities and to market.

56% of respondents were aware of the reefer rental trailer program; 8% were involved or will be 0% would like to be involved; and 41% said this program was not applicable to them.

Project #5 Food Recovery Program

The food recovery program at the Gospel Chapel in Grand Forks involves over 50 volunteers under the direction of the Food Hub staff. Recovered food is processed and distributed for free across all the communities in the Boundary in many different forms: raw fruits and vegetables, soups, and dehydrated goods.

33% of respondents were aware of the food recovery program; 19% are or will be involved in it; 7% would like to be involved; and 30% considered it not applicable.

Project #6 Boundary Heritage Grain Project

The Food Hub is working on planning and designing a stone ground flour mill in Rock Creek. This mill will be built with the intention of promoting local tourism, with plans to have a viewing area for visitors to view the processing; a pop-up or micro bakery that will be rentable by the hour or the day; and an outdoor stone oven.

Working with local Indigenous stakeholders, there are plans to integrate plants that are Indigenous to the region in this project. There will be options to use the outdoor stone oven to demonstrate how to cook products like bannock.

In this same project, the Food Hub has been working with the local Doukhobor Heritage Milling Society in Grand Forks to restore the Pride of the Valley mill.

30% of respondents were aware of the Boundary Heritage Grain Project; 4% are or would be involved in it; 21% would like to be involved; and 38% responded it was not applicable.

Key Topics

Transportation and Distribution

Transportation and distribution were prominent themes in the surveys and interviews. Participants were asked to tell us where their products going, with a variety of options, as seen below. Most of the respondents' products remained within the Boundary, where they were sold directly to consumers, mainly through farmer's markets or at farm gates. The next most prominent regions where respondents sold products were the Kootenay and Okanagan regions, where products were also primarily sold directly to consumers (see Figure 3).

	DIRECT TO CONSUMERS (FARMER'S MARKETS, FARM GATE)	RETAILERS	INSTITUTIONS (E.G. HOSPITALS, SCHOOLS)	RESTAURANTS	AUCTION	TOTAL RESPONDENTS
In the Boundary	85.71% 18	28.57% 6	14.29% 3	19.05% 4	0.00% 0	21
To the Kootenay Region	70.00% 7	60.00% 6	10.00% 1	20.00% 2	0.00% 0	10
To the Okanagan	87.50% 7	37.50% 3	0.00% 0	12.50% 1	0.00% 0	8
To the Coast	50.00% 3	66.67% 4	0.00% 0	33.33% 2	0.00% 0	6
Rest of BC	57.14% 4	28.57% 2	14.29% 1	28.57% 2	0.00% 0	7
Rest of Canada	50.00% 3	16.67% 1	16.67% 1	16.67% 1	0.00% 0	6
To the USA	60.00% 3	40.00% 2	0.00% 0	0.00% 0	0.00% 0	5

Figure 3. Distribution of Respondent's Products

The data from this prompt shows that the majority of the products produced in the Boundary are staying in the Boundary and are being sold directly to consumers. It also shows that of the top three most prevalent locations to sell, all three are directly to consumers. This could indicate challenges related to selling to broader markets, such as access to equipment and certification processes. This will be discussed in further detail later in the report. This also indicates potential for expansion into other markets.

When analyzing the responses, transportation and distribution were primarily seen as challenges to the businesses. Challenges associated with transportation and distribution were the cost of hiring companies and the lack of viable options. For example, one respondent said, "*We would love to deliver further, or I guess, distribute. But I think a big challenge with that too, for us. And it's interesting, when I saw that demonstration of the distribution platform, there was a lot of other producers there. And it sounded like everyone had the challenges, when you're small. We don't have a lot of margin. So we can't, we really can't afford to pay a distributor*." (Interview E).

Aspects of transportation and distribution that were noted as particularly challenging were access to transportation services for distribution to market and the cost of transportation. Some respondents noted that they did not see transportation and distribution as challenges, because of the scale of their business. For example, one mentioned they were too small to consider transportation and distribution beyond direct sales to consumers since transportation and distribution were significant costs to small businesses.

We asked about strategies these businesses had employed to address challenges of transportation. Strategies of sharing transportation cost was the most prevalent strategy employed by respondents. Within these discussions, others mentioned that due to the small size of their business, transportation was not a challenge, since they were unable to transport or distribute their products.

Scaling up

"'Scaling up' refers to increasing production and/or selling into new markets. This includes tools and resources needed to increase production and sell to broader markets (e.g., new equipment, training)." Respondents were asked if they were interested in scaling up and what aspects of scaling up might be of interest to them if so. We asked, in separate questions, if they were interested in scaling up, which aspects of scaling up were of interest to them, and what they needed support with.

The majority (78%) of respondents indicated they were interested in scaling up. The top three aspects of scaling up for the producers or processors were access to commercial processing space, aggregation and distribution, and selling to broader markets (see Figure 4).

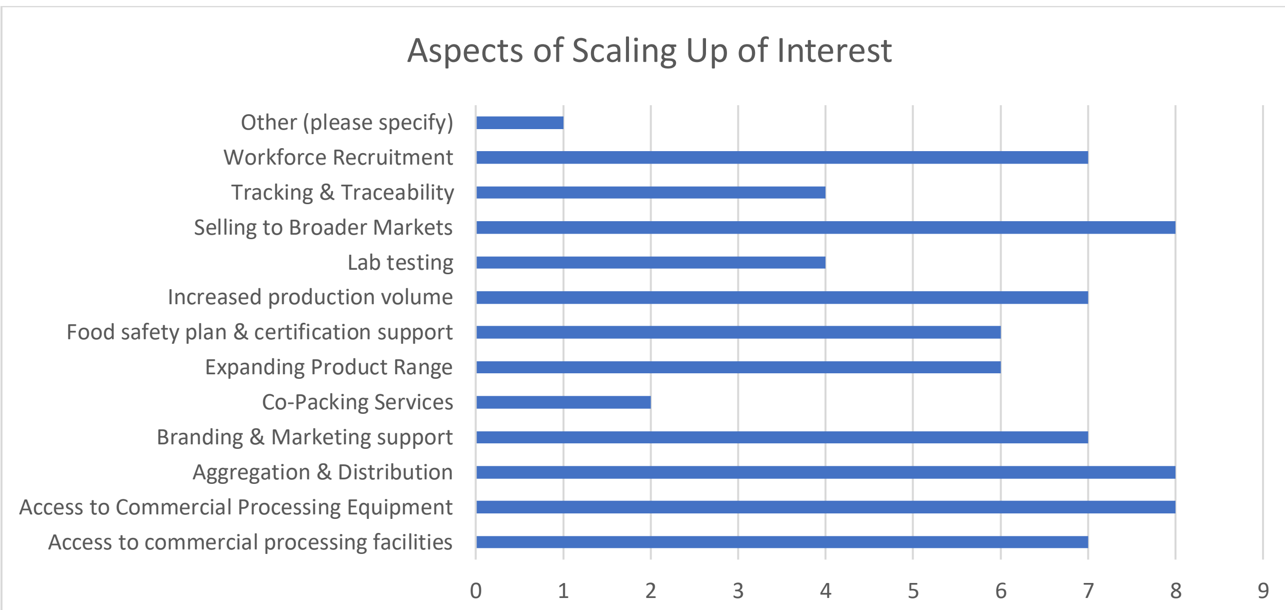

Figure 4. Aspects of scaling up that were of interest to survey respondents

When asked about challenges faced by their business, access to space and equipment that was commercially inspected was ranked the number one challenge for 20% of respondents. It was also noted by 43% of respondents that having access to either commercial processing space and 50% that equipment would facilitate 'levelling' up or increasing production.

Transportation and distribution were also noteworthy topics related to scaling up. When discussing scaling up related to transportation and distribution, one respondent spoke about the need to scale up to facilitate distribution, "*We would need to do some serious work on increasing sales. And I think a lot of that would be distribution again, like if we have access to great distribution across the country. We'd probably scale up tomorrow*." (Interview E).

Processing Space/Access to Equipment

A common theme in the surveys and interviews was commercial processing space. As noted in the previous section, it was indicated that access to a commercial processing space was the highest concern for 20% of the respondents. One respondent commented that it would not make sense to invest in a processing space for their own business at such an early stage. The need for commercially inspected spaces was reflected when asked about what support would be to scale up. One respondent spoke about the challenge of scaling up as a small business, and the requirement of a commercially inspected space in order to do so *"… in order to be above board on selling most types of processed foods or value-added agricultural goods, it needs to be going through a commercial kitchen, which is a huge barrier to entry"* (Interview B).

Of the 16 respondents who identified as processors, 38% of respondents operated out of their home kitchens, and 31% were the sole occupant in a commercially inspected facility. 38% of respondents indicated that they needed help with a food safety plan. Issues such as food safety plans further prove the respondent's interest in a commercially inspected processing space. One respondent indicated it would not be wise to 'scale up' if they did not have access to a shared commercial processing space, as their business was too small to scale up otherwise.

One respondent who represented a program to get local meals to school programs noted the need for a commercial space to get meals distributed to schools would help their program scale up.

Seasonality and Workforce

A common challenge that respondents discussed was employment and workforce constraints. One comment on a question about scaling up pointed directly to this concern; the respondent explained that access to a good workforce, and the ability to offset costs to account for the rural location of their business was something that would help the business scale up. This comment indicates challenges that were echoed by other respondents related to employment, rurality of businesses, and the uncertainty of workforce recruitment as a result of the location and seasonality of the work available.

When speaking to producers and processors at the Grand Forks Farmer's Market, challenges of employment came up. These discussions mirrored what we heard in the interviews and survey. Employment is a challenge for producers and processors in the region for a variety of reasons. Many responses indicated the difficulty in deciding to expand their business by hiring. One interview participant elaborated on this concern: "*We worked with community future step by step to, like, you know, look at what we can do with what we have to slowly build up the orders, make some more money, pay some more employees, because that's the other thing. Like running on volunteers is amazing, but it is not sustainable*." (Interview D).

"*It's an interesting kind of double-edged sword because we don't currently hire anyone… We know we would have to increase our sales to then be able to pay this person, but we probably need someone to help us increase our sales*" (Interview E).

The next is the impact of seasonality of products and processes on employment retention and intake. "*Our biggest challenges would be having a consistent work[force] with animals coming in. Having said that, if the work was evenly distributed year-round, and not just from October or August to January, then we could have consistent employees*." (Interview C). In this interview, the processor explained how difficult it is to maintain employees in the off-season. This sentiment was echoed in the survey comment sections.

Supports and Opportunities

We wanted to learn about the supports those producers and processors used, so as not to duplicate any existing supports, and learn where to best allocate Food Hub resources. 25% of respondents indicated that they were supported by the Small Scale Food Processors Association. 15% indicated support from the Kootenay Boundary Farm Advisors, and 10% said the Kettle Valley Food Co-Op was a support to their business.

When discussing supports, one interview respondent discussed how during COVID-19, programs were offered online. They spoke about how Mission Community Futures offered a course online that they would not have otherwise been able to attend. "*It was good, because, even access to some of those experts, like the people who teach some of those courses, you can then ask them some questions as far as accounting things. And then networking, like there was a woman, she's moved now, but she was here in Grand Forks. And we would kind of try to help each other. And hey, I found out this cool thing. And did you know about this? And so that was great, too, just to kind of create that, I guess. Tech, you know, it's kind of learning, but also networking*." (Interview E). This interview shows how programs can offer both technical skills, and also access to a network of other small-scale producers and processors.

10% of respondents spoke about Community Futures as a support to their business, one interview respondent spoke about how it helped with business administrative planning " … *Community Futures obviously was very helpful to us with the business planning, we got a bunch of free hours to for somebody to help us put that together*." (Interview D).

Respondents indicated they needed support in areas related to small business needs. A topic that came up frequently was that of bookkeeping and financial administrative help. Multiple respondents indicated the need for help with business administrative tasks when asked about facilitators to scaling up. Respondents indicated in interviews that they were not trained in business-related activities when starting their business and that as small business owners, they had to navigate the business administrative tasks on their own: "*The thing that you like to do is like 5% of the business. The rest of it is sales and accounting*" (Interview E).

In these discussions, they spoke about opportunities for support related to grants, and navigating administrative tasks that would enable their business to scale-up but were not being done because of the burden of tasks on the small business. *"… That would probably be an interesting thing if someone could somehow kind of aggregate all those opportunities and help people to navigate which ones apply to you and which ones don't*." (Interview E). This discussion presents an opportunity to support small-scale producers and processors in the region.

In addition to bookkeeping and business administrative tasks, challenges related to marketing were apparent in the survey and interviews. Respondents their desire to incorporate marketing into their businesses. One respondent spoke about how their customer base is all by word of mouth. They also spoke about how social media is a free tool for marketing, but how it takes consistency, and with little to no employees, they did not have time to commit to a robust social media strategy. Branding support was the third most prevalent category related to aspects of scaling up that were of interest to the participants. Of those who responded to the question, 7 (or around 30 % of respondents) noted that it was of interest to them.

The topic of environmental concerns was a question in the interviews and survey. It was discussed as a topic of concern, however, only 5% of participants deemed it to be their primary concern. One interview participant discussed their attempts to have less of a climatic impact with their business, through using solar power and electric vehicles. As a result of the relatively small portion of discussion and open-ended answers about environmental concerns, it was not as prevalent as other concerns noted above. This presents an opportunity for further research.

Limitations

While this assessment and report provides valuable insights into the opportunities and challenges faced by food producers and processors, the Boundary region, several limitations should be considered when interpreting the findings.

Firstly, the timing of the report was something that may have impacted the uptake in respondents. As the recruitment began around June, the harvesting season was in full swing when we were conducting interviews and implementing the survey. When reaching out to one respondent over the phone, they said despite wanting to take part, they were too busy harvesting to agree to an interview. As a result of the timing, we acknowledge there may be missing perspectives from those who were too busy harvesting.

Although we received a relatively equal geographic distribution of respondents, the lack of representation of meat processors in the region. We understand that this is a perspective we were unable to fully take into account when analyzing data and writing a report related to the challenges and opportunities of all producers in the area. If we had heard from more meat producers and processors, there would be a greater depth of understanding of meat-specific related challenges and opportunities. This presents an avenue for further research that focuses directly on meat producers and processors of the Boundary region.

Another area that potentially limited the results of this study is the option to choose that an answer was not applicable, without giving a reason. An example of this is in the 'Awareness of Food Hub Programming' question of the survey. There was a significant number of respondents who answered that certain programs were not relevant to them. With many questions, we offered a comment box, however it was used minimally. This is an area that would benefit greatly if we knew more as to why respondents considered certain aspects of Food Hub Programming to be not applicable to them. The limitation of using close-ended questions, despite the inclusion of a comment box, presents an opportunity for further research.

Opportunities for Future Research

The process of creating, implementing and analyzing this survey highlighted some key areas that merit further research. As noted above in the limitations section, based on the absence of perspectives from meat producers and processors in the survey, there is an opportunity to gather important information about the demographic through future research similar to this, but more focused (specifically targeting only meat producers/processors through recruitment criteria and more targeted recruitment strategies).

As noted above, the Food Hub would benefit from further research that targets programming specifically. Having semi-structured interviews that focus specifically on the programs offered by the Food Hubs would give deeper insight into the awareness and use of the programs. It would help provide insight into future programs and direction of current programs.

Discussion

The purpose of this project was to understand what food and agricultural businesses exist in the study area, and what their characteristics are. We also wanted to know about what their challenges are, where there are opportunities for support, and how these challenges and opportunities may relate to the BCVA Food Hub projects. We learned many valuable insights after collecting and analyzing the data from the survey, interviews, and participant observation.

Upon asking about the awareness of the BCVA Food Hub project and interest in involvement, we learned that there was general awareness of the programs. The Meat Processing Facility in Rock Creek had the highest respondent awareness at 63%. The reefer rental trailers had the next highest respondent awareness rate at 54%. Along with awareness, we learned about interest in involvement, where the proposed Food Processing Space in Grand Forks had the highest interest in involvement at 31%. The Grow and Connect Platform had the next highest interest in involvement. The rates at which respondents were interested and aware of these projects highlight the relevance of the programming. Each project also lends itself to one of the major themes presented in the findings of this research.

Our key findings highlight that transportation and distribution were major factors in almost all of the businesses' responses. We learned that most respondents sold their products directly to producers in the Boundary Region. The next most prevalent customer base was located in the Kootenay and Okanagan regions, both directly to consumers. We learned that there were high levels of interest in further distribution, however, constraints of employment, distributor schedules, and cost of transportation heightened the challenges of broader distribution. The most prevalent solution that respondents had undertaken in order to ease the burden of challenges related to transportation and distribution was sharing costs and sharing transportation. Respondent solutions to their challenges of transportation align with the needs that the Grow and Connect platform aims to address. As one of the Food Hub's six major projects, the Grow and Connect Platform was created as a way to mitigate challenges related to the high cost of transportation and distribution and facilitate relationship building through shared distribution and making distribution routes visible to producers, processors, consumers and beyond.

The need for commercial processing equipment and commercially inspected space was a prominent discussion when asked about scaling up. Respondents indicated that if their need for equipment and space was met, they would be more likely to scale up. This data is an insightful look into how another one of the major Food Hub projects can provide space for local producers and processors to scale up. The two processing spaces, one in Rock Creek and one in Grand Forks could be potential solutions to these barriers to scaling up. The challenge of commercial processing space and equipment was also tied to transportation and distribution. One respondent noted they did not have transportation issues because they were not able to scale up to distribute products until they had access to commercial equipment. If challenges associated with space and equipment are met, it is likely that the solutions around transportation and distribution will maintain an even more pronounced prominence for producers and processors in the region.

Other challenges that came up for respondents were that of workforce retention as a result of rural locations, seasonality of products (primarily growing and processing seasons), and access to business supports. When discussing supports and what might help them scale up, respondents told us that having a business plan from Community Futures helped surmount business challenges, and that the flexibility of the Kettle Valley Food Co-Op helped with difficulties associated with seasonality of products. With this understanding of the diverse challenges faced by businesses, the Food Hub has opportunities to provide informed support. An example of this could be through education programs with flexibility (for example, online options), or in addition to a commercial food processing space that facilitates processing in a commercial kitchen, areas such as greenhouses for year-long growing.

Recommendations

Based on the information gathered and analyzed from the survey, interviews and participant observation, we have identified two key areas for action: increasing engagement and addressing transportation and distribution.

- **Increase engagement with producers and processors around the BCVA Food Hub.** This research project was a facilitator to beginning this process. The recommendation for increased engagement is in accordance with goal number 5 in the Boundary Area Food and Agriculture Plan: To strengthen awareness of and skills in the local food and agriculture system (BCVA, 2018a). We know that there is awareness of BCVA projects, and this awareness is encouraged through the Food Hub's participation at country fairs and the publication of this report. Programs such as the Food Recovery Program and the reefer trailers are also proof of the current support offered by the Food Hub. However, there were several responses that said businesses were not familiar with how projects relate to their businesses, suggesting the need for better engagement and communication. If there was further exposure to the diverse ways that these programs could be implemented, there may be more uptake of the projects. An example is the use of the reefer trailers beyond meat storage. The refrigeration provides a space for a greater diversity of products to be stored and moved; the trailers have been rented for use of haskap berry storage and transportation. The Food Recovery program would benefit from greater producer and processor awareness. As of right now, the program is only recovering products from one supermarket in the area. With increased awareness of the program, there are greater opportunities for farmers to supply their unsold or unusable food to the program, food that would have otherwise gone to waste.

- **Prioritize efforts on developing solutions to transportation and distribution.** Soon, the Grow and Connect platform will provide opportunities for solutions to challenges related to transportation and distribution, and the Rock Creek food processing facility will begin the building process. Awareness of programs on the horizon provides opportunities for producers and processors in the Boundary region to engage with the programs once they are implemented. Long-term recommendations include the implementation of the future Food Hub projects – the food processing space in Grand Forks and the Boundary Heritage Grain Project both offer opportunities for commercially inspected processing space and equipment, challenges which we learned are a priority for producers and processors in the region.

Other recommendations include the incorporation of education programming in each Food Hub program. Along with commercially inspected processing space, the Food Hub could provide opportunities for business development and support through education programming. This type of educational support has been indicated as a need by the results of this report, and in accordance with the BC Food Hub Network, can provide much more than just a physical space – a food hub can improve access to technical services and business supports.

Conclusion

In conclusion, the findings of this assessment underscore both the challenges and opportunities faced by producers and processors within the Boundary. Key challenges such as transportation and access to commercially inspected processing spaces emerged as significant barriers to scaling up and day-to-day operations. However, the data also highlighted potential for solutions, through collaboration and opportunities for businesses to access commercial processing space. By addressing the needs indicated by the respondents of the surveys and interview participants—such as providing inspected processing spaces, fostering networking opportunities, and offering business support—the Food Hub has the potential to strengthen the regional food system. Moving forward, continued collaboration and support will be essential in helping the region’s producers and processors thrive in an evolving market.

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Report Details

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