Food Economy & Food Hub Assessment

Regional District of Bulkley Nechako | Final Report April 2021

Prepared for:
Regional District of Bulkley Nechako

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Executive Summary

Within the Regional District of Bulkley Nechako lies a diverse food economy. This includes a wide-range of small to large farms, food processors, food retailers and markets, food distributors as well as about 38,000 eaters. Together, the food economy in the RDBN is valued at about $150 million per year.

Like other areas of the province many produce and protein producers have to build or contract storage and processing infrastructure either off-farm or out of the region for a range of reasons. As a result, the RDBN and producers have identified the need to examine what regional food infrastructure could be established to support a wide range of producers, food businesses and customers in the region and beyond.[1]

This Food Economy Assessment and Food Hub Feasibility Study was launched in January of 2020. The project team lead by Urban Food Strategies in association with Greenchain Consulting and Sustainability Ventures conducted research, webinars, interviews, small group meetings and steering committee meetings to gather information around what kind of food hub model could best support the food economy in the region.

A food hub network model emerged out of research and engagement findings. A food hub network is a distributed model of coordinated food assets (e.g. processing kitchens, cold storage, refrigerated transportation). Based on research and key input, the regional food hub network model has 10 core elements:

1. Set up a coordinating body for the food hub network.
2. Establish a region-wide online marketplace for region-made foods.
3. Provide an aggregation and distribution service available to all local producers.
4. Add a food storage component to new or existing facilities.
5. Establish a processing facility.
6. Identify other value-added processing opportunities.
7. Improve meat slaughter and processing capabilities.
8. Provide business and technical farming services.
9. Find ways to collaborate with First Nations.
10. Establish complimentary local "farmers' stores".

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[1] Both the 2012 and 2020 Agriculture Plans identified an examination of food hubs as part of an economic development goal.

In order to shift the regional food economy by 2%, an implementation plan for the food hub network is presented that includes three phases:

- Phase 1 – Set up network and online orders.
- Phase 2 – Rent a permanent warehouse space.
- Phase 3 – Add a small retail presence and processing facility.

Table 1 Food hub network phases and key revenue categories

	Phase 1	Phase 2		Phase 3	
Food hub network elements and revenues categories	**Year 1 Set up network+ online orders**	**Year 2 Activate existing assets/services**	**Year 3 Add low capital initiatives**	**Year 4 Add processing facilities**	**Year 5 Buildout + specialty elements**
Key elements	Membership fees Online ordering 2 packing sites Third party rentals	Membership fees Online ordering 2 packing sites portable coolers reach in freezers	Membership fees Online ordering 2 warehouses 2 walk in coolers 2 walk in freezers 1 comm. Kitchen	Membership fees Online ordering 2 warehouses 2 walk in coolers 2 walk in freezers 2 comm kitchens 1 training rm 1 cross/dock site	Membership fees Online ordering 3 warehouses 3 walk in coolers 3 walk in freezers 2 comm kitchens 1 training rm 1 warehouse Specialty/equip. Retail presence

The proposed operations plan involves:

- Establishing an online sales platform
- Fulfilling orders placed on the online marketplace
- Providing access to ambient, refrigerated and frozen storage space
- Providing access to a food processing facility
- Re-establishing a poultry abattoir in Vanderhoof
- Providing access to technical and business training services

The proposed governance structure involves setting up a steering committee.

Table 2 provides a summary of financial projections for the food hub network. These projections aim to shift the food economy by 2%, which we believe is the lowest threshold for generating enough interest to make investment worthwhile.

In short, while there are many interested parties, including producers and retailers as well as market potential for RDBN goods, at this time, there is not enough critical mass to launch a region- wide food hub network to shift the regional food economy 2%. However, there are small pieces of a future network that could be established to help keep building momentum and capacity for regional coordination namely, paid coordination and implementation of an on-line food brokerage program.

The total is greater than the sum of the parts. If small to medium scale food businesses, non-profits, universities, and others work together to establish a region-wide food hub network, then the economics for all are improved and the feasibility of success is greater.

Table 2 Summary five-year financial projections for the Food Hub Network

Food hub network elements and revenues categories	**Phase 1**	**Phase 2**		**Phase 3**	
	Year 1 Set up network+ online orders	**Year 2 Activate existing assets/services**	**Year 3 Add low capital initiatives**	**Year 4 Add processing facilities**	**Year 5 Buildout + specialty elements**
Retail value of food sales	**$206,360**	**$552,750**	**$1,104,900**	**$1,856,000**	**$2,986,000**
Revenues					
Memberships	$5,000	$10,000	$15,750	$22,000	$32,000
Online sales + distribution	$96,000	$212,500	$340,200	$668,800	$1,150,000
Sales to Institutions	$10,000	$36,000	$70,000	$96,000	$126,000
Third party distribution	$560	$1,620	$5,200	$7,500	$14,400
Equipment rentals	$8,000	$30,000	$60,000	$80,000	$100,000
Processing Facility rentals	$3,840	$15,000	$62,400	$97,200	$168,000
Food storage rentals	$1,440	$9,000	$18,000	$36,000	$72,000
Consulting services	$14,400	$36,000	$72,000	$144,000	$216,000
Training programs	$12,000	$24,000	$60,000	$90,000	$120,000
Other revenues	$1,462	$7,282	$20,634	$48,780	$98,320
Total revenues	**$151,240**	**$374,120**	**$703,550**	**$1,241,500**	**$1,998,400**
Cost of Goods Sold					
Online sales + distribution	$82,560	$172,550	$270,799	$541,728	$931,500
Cost of sales to institutions	$9,000	$32,400	$63,000	$86,400	$113,400
Third party distribution	$392	$1,134	$3,380	$4,500	$7,920
Equipment rentals	$7,040	$25,500	$48,000	$52,000	$50,000
Processing Facility rentals	$3,379	$13,200	$54,912	$85,536	$147,840
Food storage rentals	$1,296	$8,100	$13,500	$27,000	$54,000
Consulting services	$12,000	$30,000	$60,000	$120,000	$180,000
Training programs	$10,200	$168	$480	$810	$1,200
Other revenues	$1,170	$5,680	$15,682	$36,097	$70,790
Total Cost of Sales	**$127,037**	**$288,732**	**$514,071**	**$917,974**	**$1,485,860**
% gross margin	16.0%	22.8%	26.9%	26.1%	25.6%
Overhead labour	$80,000	$100,000	$140,000	$190,000	$220,000
labour as % of revenues	52.9%	26.7%	19.9%	15.3%	11.0%
Non-labour expenses	$18,149	$41,153	$70,355	$111,735	$179,856
Expenses as % of revenues	12.0%	11.0%	10.0%	9.0%	9.0%
Surplus/loss	**($73,946)**	**($55,765)**	**($20,876)**	**$21,791**	**$112,684**
Surplus/loss as % of revs	-48.9%	-14.9%	-3.0%	1.8%	5.6%

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1.0 Introduction

1.1 Project background

Food and agriculture are a major part of our region's culture, environment, and economy.

The RDBN updated and approved the RDBN *Food and Agriculture Plan* in March, 2020. Through this process the RDBN heard that there is a desire to increase access to regional food and increase the marketability and distribution of the products both within and outside of the region. The RDBN Food and Agriculture Plan identifies eight priority areas, including Priority 3: *Develop the RDBN food and agriculture sector and market(s).* Actions to address this priority include undertaking a food hub feasibility study and a regional food economy assessment. Implementation funding for this action is provided through the RDBN's Northern Capital and Planning Grant.

1.2 Project overview and objectives

This assessment has two main components:

1) Assessing the regional food economy and creating a plan to incrementally increase regional food consumption by 2%, 5%, and 10%

2) Assessing the feasibility of food hub(s) and how the RDBN can work with communities to implement findings.

The RDBN is interested in better understanding the value of the regional food economy (e.g. how many jobs, how much is spent) and strategies in how to grow the regional economy. The RDBN is also interested in the BC Food Hub Network being promoted by the BC Ministry of Agriculture as well as working with communities and non-profits to implement recommendations in the food economy and hub assessments.

This project has four objectives:

1. Assess the environmental and economic contribution of the regional food and agriculture economy.
2. Engage mainstream agriculture, emerging agriculture, indigenous communities and a wide range of businesses participating in the regional food system space in identifying both gaps and opportunities for expanding the regional food economy.
3. Project the cultural and economic benefits of 2%, 5%, and 10% increases in food that is consumed regionally, supported by implementable strategies.
4. Develop and test the viability of a model for investing in food hub infrastructure as well as develop 2-3 pilot project ideas for implementation in cooperation and collaboration with communities and non-profit groups in 2021.

1.3 How we got here and who was involved

Phase 1:
START UP

- Completion of the RDBN Agriculture Plan update (2020)
- Hiring of project contractors (Urban Food Strategies in association with Greenchain and Sustainability Ventures)
- Formation of the Food and Agriculture Working Group 2 (FAWG 2)
- Meeting #1 of the FAWG 2

Phase 2:
ASSESSMENT

- Document and data review
- Interviews (~30 key players)
- Webinar on Food Hubs for Rural and Remote Regions
- Group meetings accross the region
- Assessment of regional food economy and market research for food hub
- Meeting #2 of FAWG2

Phase 3:
STRATEGY

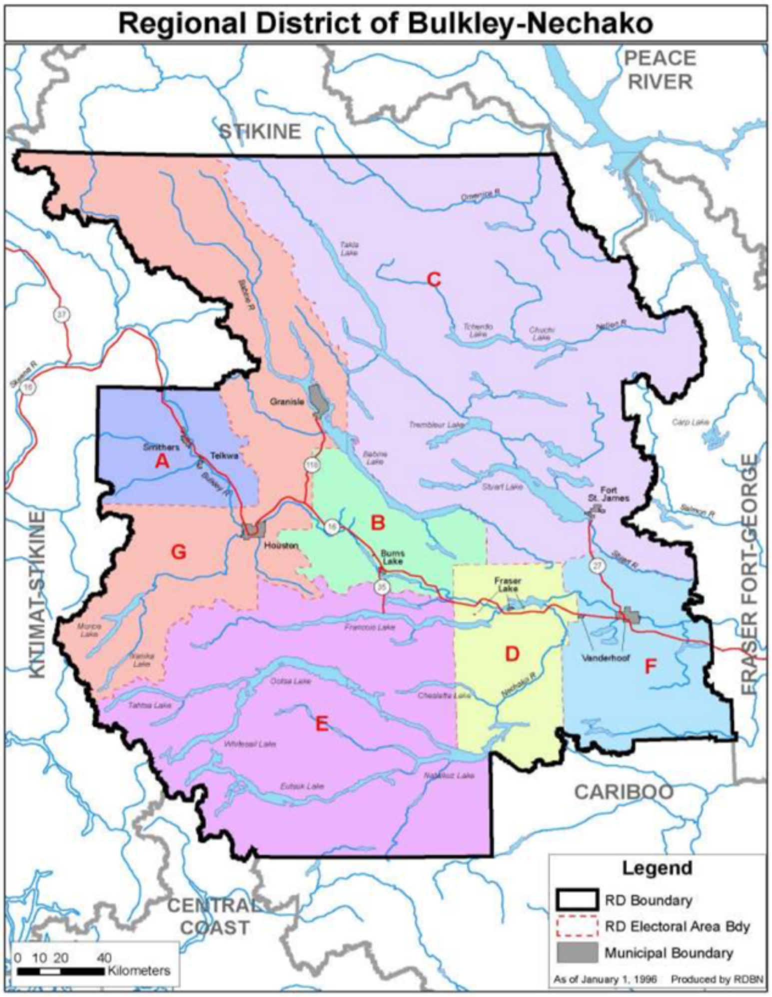
- Draft Shift Plan and Food Hub Feasibility Study/Pilot Projects
- Workshop findings with small groups
- Meeting #3 FAWG 2
- Produce revised document
- Present strategy
- Meeting #4 FAWG2
- Promote strategy

1.4 Study Area

The RDBN is located north of the Cariboo in north-central BC. The region covers 73,419 sq. kilometers and has a population of 37,896 (Stats Can 2016, Census Profile). Figure 1 depicts the boundaries and areas within the RDBN.

Although the assessment is focused in the RDBN, linkages and opportunities to work with other regions are considered throughout this process.

Figure 1.1 Map of Regional District of Bulkley-Nechako



1.5 Study Methods

The project team used a variety of methods to obtain information for this project. These included:

- Document reviews
- One-on-one phone interviews
- Large and small group teleconference calls
- A producer survey

In addition, the project team brought knowledge from other projects to help further develop concepts for the RDBN. Some of the recommended concepts and content in the report have been drawn from other food hub initiatives the consulting team have previously worked on.

2.0 Food Economy Assessment Overview

2.1 Food Producer Economy Assets

2.1.1 Primary food production

RDBN has a large agricultural sector in relation to its population and other industries. While less than 1% of the British Columbians reside in the region, the region accounts for 4% of the farms in the province and 4.5% of the food workers. The total land area of the Bulkley Nechako Regional District is about 7.3 million hectares with 373,000 ha within the Agricultural Land Reserve (5% of the region). About 40% of the land within the ALR (148,000 ha) was actively farmed in 2012. Given that the total land area that is actively farmed in the Regional District in 2012 was 251,000 hectares, this suggests that just over 100,000 ha of land is farmed on private or crown land outside the ALR.

Table 2.1: Number and type of primary producers in the RDBN, including employment

Product categories	**Smithers Rural A**	**Burns Lake R B**	**Fort St. James R C**	**Fraser Lake Rural D**	**Francois/ Ootsa Lake E**	**Vanderhoof Rural F**	**Houston Rural G**	**Indigenous Nations + Other**	**Total for the Region**	**% of total**	**Total British Columbia**	**% of total**
Beef cattle	41	10	8	24	26	98	21		228	31%	2,362	13%
Dairy cattle	14	0	0	0	0	2	0		16	2%	517	3%
Hogs	3	0	1	0	0	2	1		7	1%	101	1%
Poultry and egg	0	0	1	1	2	3	2		9	1%	1,220	7%
Sheep and goat	5	2	2	2	6	2	3		22	3%	553	3%
Horse	22	3	4	7	6	27	9		78	10%	1,955	11%
Multiple animal	18	5	1	9	9	28	7		77	10%	942	5%
Apiculture	5	0	0	1	0	1	1		8	1%	303	2%
Oilseed and grain	0	1	1	0	0	11	0		13	2%	304	2%
Fruit and veg	13	0	1	2	1	6	0		23	3%	4,607	26%
Greenhouse	7	1	1	1	0	4	1		15	2%	1,499	9%
Hay	50	13	12	20	25	106	10		236	32%	2,635	15%
Other	4	0	0	0	2	9	0		15	2%	530	3%
Total farms 2016	**182**	**35**	**32**	**67**	**77**	**299**	**55**		**747**	**100%**	**17,528**	**100%**
% of total farms	24%	5%	4%	9%	10%	40%	7%		4% of BC			
Total farms 2011	**219**	**50**	**35**	**83**	**95**	**305**	**53**		**840**		**19,759**	
% change 2011 to 2016	-17%	-30%	-9%	-19%	-19%	-2%	4%		-11%		-11%	
Demographic/employment Data	**A**	**B**	**C**	**D**	**E**	**F**	**G**		**Total**	**% of BC**	**Total BC**	
Population 2016	11,984	3,717	3,013	2,460	1,593	8,104	4,199	2,827	**37,897**	0.8%	4,648,055	
Population 2011	12,142	4,131	3,120	2,901	1,507	8,182	4,425	2,800	**39,208**		4,400,057	
% change in population	-1%	-10%	-3%	-15%	6%	-1%	-5%	1%	-3%		6%	
Farms/1000 population in 2016	15.2	9.4	10.6	27.2	48.3	36.9	13.1	-	**19.7**		**3.8**	
Land Area (sq. km)	3,699	3,639	25,604	4,407	15,897	5,451	14,561	234	**73,491**	8.0%	922,503	
Residents per square kilometre	3.2	1.0	0.1	0.6	0.1	1.5	0.3	12.1	0.5		5.0	
Agr, Forestry, Fishing & Hunting Workers	605	235	270	220	220	865	390	105	**2,910**	4.5%	65,205	
Food workers as % of population	3.7%	4.8%	6.3%	7.1%	13.8%	7.7%	1.9%	3.7%	7.7%		1.4%	
Food worker distribution with the region	21%	8%	9%	8%	8%	30%	13%	4%	100%			

Source for farms by farm type: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3210040301&pickMembers%5B0%5D=1.2162

Source for food workers: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CD&Code1=5951&Geo2=PR&Code2=59&SearchText=bulkley&SearchType=Begins&SearchPR=01&B1=All&TABID=1&type=0

Table 2.2: Farm receipts and direct to consumer sales channels within the RDBN

Farm receipts	Smithers Rural A	Burns Lake R B	Fort St. James R C	Fraser Lake Rural D	Francois/ Ootsa Lake E	Vanderhoof Rural F	Houston Rural G	Indigenous Nations + Other	Total for the Region	Region as % of BC	Total British Columbia
Farm receipts 2016 ($millions)	$15.18	$0.99	$0.9	$5.4	$5.0	$32.7	$3.0	N/A	$63.2	1.7%	$3,729
Farmer receipts 2011 ($millions)	$11.97	$1.02	$0.9	$7.6	$4.3	$26.3	$2.2	N/A	$54.2	1.8%	$2,936
% change in farm receipts	27%	-3%	3%	-29%	17%	25%	36%	N/A	17%		27%
Average receipts per farm	$83,407	$28,286	$29,563	$80,269	$64,566	$109,498	$54,091	N/A	$84,579	40%	$212,766

Direct to consumer sales channels	A	B	C	D	E	F	G		Total	% of tot	Total BC	% of tot
Farms selling direct to consumer	61	9	9	13	13	47	12	N/A	164	22%	5667	32%
Farms selling agricultural products	59	9	8	12	13	47	12	N/A	160	21%	5532	32%
Farms selling value added products	8	-	2	3	2	2	1	N/A	18	2%	592	3%
Farmer selling at farm gate	56	9	8	11	12	40	11	N/A	147	20%	5047	29%
Farmers selling at farmer's markets	11	1	2	3	1	7	1	N/A	26	3%	1244	7%
Farmers seliing through CSAs	3	-	-	1	-	1	-	N/A	5	1%	249	1%
Farmers selling using other methods	4	-	-	2	-	6	1	N/A	13	2%	243	1%

Source for Farms classified by total gross farm receipts: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3210043601&pickMembers%5B0%5D=1.2162

Source for Farms selling ag products direct to consumers : https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3210044701&pickMembers%5B0%5D=1.2162

Analyzing information from Statistics Canada (Tables 2.1. and 2.2) provides an overview of farming in the region:

- In 2016 there were 740 farms in the region, 2/3 of them located in the Smithers and Vanderhoof regions.
- The number of farmers in the region declined by 11% between 2011 and 2016.
- About 90% of the farms are engaged in meat or hay production.
- Beef cattle farms are by far the most popular livestock farm (31% of total farms).
- Farm size ranges from under 10 acres (27 farms) to over 3,520 acres (38 farms).
- Eight large farms (2,880 to 3,519 acres) operate in the region (2016 census).
- The 740 farms in the region generated $63 million in revenues in 2016, a 17% increase from 2011 (even though the number of farms declined by 11%).
- 38% of farm gate receipts was generated by just 3% of farms, which had annual sales of >$500k in 2016.
- The average revenue per farm is only 40% of the average farm revenue for BC.
- Vanderhoof has the highest revenue per farm, followed by Smithers and Fraser Lake.
- Over 75% of total farm receipts are generated in the Smithers and Vanderhoof areas.

There is a clear shift toward larger farms in the region, which is also reflected provincially and nationally. These large farms tend to focus on a limited number of products (i.e. hay or beef) and on markets outside of the region, limiting the opportunity of diverting their current production to local consumption.

However, 22% of the farms in the region do sell direct to consumers (by comparison 32% of all farms in BC sell direct to consumers). Since 2014, the Regional District of Bulkley Nechako has compiled an annual guide called Connecting Consumers & Producers. The guide lists over 100 food producers in the region and neighbouring Regional District of Kitimat-Stikine. Of the food producers listed, 80 offer direct sales to customers, 24 sell at farmers' markets, 46 have an online presence (e.g. website, Facebook page, Instagram), 8 offer delivery, just 3 are listed in a major retailer such as Bulkley Valley Wholesale and 17 are listed in independent grocery stores.

A 2006 report titled *B.C.'s Food Self-Reliance: Can B.C.'s Farmers Feed Our Growing Population?* highlighted that, given current production technology, just over half a hectare of farmland (0.524 ha) is needed to produce enough food for one person for one year, 10% of which would need to be irrigated. By this calculation, the 250,000 hectares of actively farmed land in the region, could potentially feed over 130,000 people, far greater than the current population of about 40,000 people. This suggests that, even with a shorter growing season, the region has more than enough agricultural land to be food self-reliant.

It is generally accepted that becoming more food self-reliant has significant environmental and cultural benefits. Food that travels shorter distances between the production location and consumption location greatly reduces the greenhouse gas emissions associated with food transportation and local food is generally fresher and therefore healthier to eat.

2.1.2 Food processors

A number of food processors exist in the region (see Appendix A, table A-1 List of Food Processors in the Region), most of which are small scale food processors mostly selling their products within the region plus several home-based food processors that sell at the local farmers' markets. The type of food processed in the region include:

- Baked Goods
- Beer
- Preserves, Jellies and Sauces
- Processed fruits and vegetables
- Honey
- Meat products
- Flour
- Coffee
- Prepared meals

The RDBN Foundations Report (2020) highlighted that 80% of 44 farms who responded to a 2019 survey indicated that they did not have on-farm processing. Of those that reported that they have on-farm processing, 4 farms have cold storage, 3 have frozen storage, 2 have dry storage, 3 have washing and bagging stations, and 2 have commercial processing equipment. Several farms have unique equipment, including meat processing equipment, honey spinner, grain storage and milling, forage compression, baling and labelling.

2.1.3 Non Timber Forest Products

Only two registered businesses in the region harvest or process non-timber forest products (see Appendix A, List of Food Processors in the Region). Due to the nature of the sector, there are also numerous unregistered individuals and groups that harvest non-timber forest products in the region. In and around neighbouring Prince George there are a significant number of non-timber forest product businesses registered. There are two distributors that operate in the region, buying from local harvesters, but are headquartered in the Lower Mainland, these are West Coast Wild Foods (Vancouver) and Mikuni Wild Harvest (Burnaby).

2.1.4 Commercial kitchens

There is no publicly accessible commercial food processing kitchen in the region. However, there are several commercial kitchens, although it is not clear how many are available to rent by external parties. Most communities have one community-run commercial kitchen and the larger towns have two kitchens. A list of these can be found in Appendix A - Table A-2. Several churches in the region also have kitchens for rent, (e.g. the St. James Anglican Church and the Old Church).

2.1.5 Abattoirs

The region has two abattoirs, one in Telkwa and one in Vanderhoof. All facilities are class A and B and between them process cattle, hogs, sheep, goat and bison. A poultry and rabbit processing facility in Vanderhoof recently closed (see Table 2.3). *Note that Class A facilities can slaughter and process while Class B facilities are only allowed to slaughter.* The region does not have any class D abattoirs as it is not a Ministry of Agriculture designated area for Class D facilities. The number of class E abattoirs in the RDBN is unknown as they are not publicly listed. The region has other businesses that process meat either on behalf of meat producers or for customers who have bought whole carcasses or block portions (see Appendix A Table A-3).

Table 2.3 Abattoirs in the region

Name of Abattoir	Location	Class and Animal Type
Bulkley Valley Custom Slaughter	Telkwa	Class A: Poultry and rabbit
Bulkley Valley Custom Slaughter	Telkwa	Class B: Cattle, hogs, sheep, goat
Country Locker	Vanderhoof	Class A: Cattle, hogs, bison, sheep
Newsat Farm (No Longer Operating)	Vanderhoof	Class A: Poultry and Rabbit

Source: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/food-safety/meat-inspection/bc_meat_plants_public_list_by_region.pdf

2.1.6 Food distributors and storage

Food distribution and storage services in the region include the following.

- **Wholesale food distributors -** Bulkley Valley Wholesale (part of the Overwaitea Group) in Smithers BC, is the only wholesale distributor in the region. It distributes to restaurants, convenience stores, institutions, remote mining and lodge camps across northern BC plus hospitals and colleges. They distribute as far west as Prince Rupert and as far east as Prince George and north on Highway 37. Several wholesale food distributors operate in the region, but are headquartered outside the region:
  - Neptune Food Service
  - Clark Freight
  - Sysco
  - Gordon Food Services
  - Distributors for major food businesses, such as Safeway
- **Third party transport companies** – there are two in the region, Bandstra Transport and TST-CF Express (Canadian Freightways), that have the capacity to transport dry, chilled and frozen items throughout BC.
- **Regional food producers** - mostly do their own distribution.
- **Cold storage** – no formal businesses exist in the region for food producers to store their products. Therefore, food producers store products in their own facilities or through informal relationships such as a friend's or neighbour's facility.

2.2 Food Consumer Economy Assets

2.2.1 Food expenditures in the region

No region-specific information exists on food expenditures within the region. However, by making a household income adjustment for the region compared with BC as a whole and applying it to the BC household food expenditure from Statistics Canada, we calculate that residents in the region spend about ~$150 million on food every year, including both grocery and restaurant purchases (see Table 2.4). Grocery purchases account for about 68% of total food purchases across BC, although the percentage is likely higher in the Bulkley Nechako Region. The Smithers area accounts for over one third of total food purchases in the region, while the Vanderhoof area accounts for 22% of total food purchases.

Note that there is an additional amount of purchasing from institutional buyers but there is no readily available information on this and we do not believe that it is a significant number.

Table 2.4 Annual household food expenditures by area with the RDBN

Food expenditures in the region	Smithers Rural A	Burns Lake R B	Fort St. James R C	Fraser Lake Rural D	Francois/ Ootsa Lake E	Vanderhoof Rural F	Houston Rural G	Indigenous Nations + Other	Total for the Region	Region as % of BC	Total British Columbia
Median household income $2015	$82,976	$75,265	$82,514	$73,187	$66,091	$82,213	$71,752	$36,000	$76,008	109%	$69,995
Expenditures on goods and services	$76,338	$69,244	$75,912	$67,332	$60,804	$75,636	$66,011	$33,120	$69,927	109%	$64,395
% of total expenditures spent on food	14.3%	14.4%	13.9%	14.2%	14.3%	13.9%	14.2%	15.3%	14.3%		14.4%
Expenditures on food per household	$10,916	$9,971	$10,552	$9,561	$8,695	$10,513	$9,374	$5,067	$9,975	108%	$9,245
Number of households	4,807	1,460	1,254	1,111	621	3,131	1,785	936	15,105	0.7%	2,063,217
Total food expenditures ($millions)	**$52.5**	**$14.6**	**$13.2**	**$10.6**	**$5.4**	**$32.9**	**$16.7**	**$4.7**	**$150.7**	0.8%	$19,074
Distribution of food expenditures in reg	34.8%	9.7%	8.8%	7.0%	3.6%	21.8%	11.1%	3.1%	100%		

Source for detail food expenditures in E https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110012501&pickMembers%5B0%5D=1.13
Source for food expend. relative to incc https://www150.statcan.gc.ca/n1/daily-quotidien/171213/t002b-eng.htm

2.2.2 Where RDBN residents buy their food

Statistics Canada provides data on the primary types of locations where BC residents buy their food. If residents in the region are representative of BC as a whole, they would be expected to buy 87% of their grocery shopping from supermarkets and other grocery stores. The remaining 13% is purchased from convenience and speciality stores. When it comes to eating out 50% of purchases are at full-service restaurants, 37% from limited-service eating places (e.g. fast food) and the remaining 13% from special food services and drinking places (e.g. pubs). Further details can be found in Appendix A, Table A-4-5)

2.2.3 Food enterprises

The following types of food enterprises operate in the region:

- **Major retailers** – several major retailers operate in the region (see Appendix A, Examples of major grocery retailers in RDBN), some of which sell some products from the region but only from a select number of producers (see Appendix A, Table A-6). Bulkley Valley Wholesale carries the largest selection of locally produced products.
- **Independent retailers** – several independent retailers operate in the region and tend to list more regional products (see Appendix A, Examples of independent grocery retailers in RDBN). However, their volumes are smaller than the major retailers.
- **Markets** – the region has 7 farmers' markets (see Appendix A, Table A-7) which only sell locally produced products. However, they have limited sales because they are only open once a week during the growing season, apart from one which is year round.
- **Restaurants** - the region has a good number of independent and chain restaurants and café's but only a few highlight that they source from food producers in the region (see Appendix A, Restaurants that highlight they use local ingredients).
- **Hospital and care facilities** - Most health care facilities in the region are managed and operated by Northern Health (see Appendix A, Hospitals and Care Home facilities in the region). It is estimated that these facilities purchase $250,000 per year of food,

however none of it from regional producers. There are several other care facilities in the region (Please see Appendix A). It is estimated they buy less than $250,000 worth of food per year, but it is not known if they buy from local producers.

- **Educational institutions** - several schools exist in the region, but it is not known if or how much local food they buy (Please see Appendix A).

2.2.4 Local food education and advocacy groups

The region has several food education and advocacy groups including food security Not-For-Profits and farmer associations (see Appendix A, Table A-8).

2.2.5 Regional food security programs and initiatives

Several programs and initiatives have emerged to enhance the region's food security and local food economy, these are listed in Appendix A Table A-9 with an overview of each and their status.

3.0 What We Heard

The approach to this project involved connecting with as many producers and food businesses as possible throughout the region as well as the associations and non-profits that support them. The project team used multiple methods to connect with key players.

- Working with a Food and Agriculture Working Group (FAWG), who provide guidance and feedback at key points during the process. FAWG members are acknowledged at the beginning of this document.
- Hosting a *Food Hubs for Rural and Remote Regions* webinar with guest speakers from other successful food hubs.
- Twenty-Seven one on one interviews (for full summary please see Appendix C).
- Producer survey (for full summary please see Appendix D).
- Multiple small group meetings (for full summary please see Appendix E).
- Review of previous discussions, workshops and research (e.g. Agriculture Plan).

The following themes represent a synthesis of this engagement and input. Detailed findings summaries are provided in Appendices C-E. **Please note that the views expressed in this chapter are those of the interviewees. They are not necessarily the views of the consultants.**

3.1 General feedback on food hub and food economy

General feedback on the regional food economy

- Interest in local food is growing in the region and more retailers are offering it.
- There are many existing food assets in the region as well as Parties that are already working to develop food hub services in the region. There are also food hub related services and facilities that already exist in the RDBN.
- What works in southern BC does not necessarily work for northern regions.
- There is a strong farmers' market sector, but it has challenges.
- Outside of farmers markets and farmgate sales, it is hard to buy local food.
- Marketing and distribution channels outside the region are needed.
- Producers are (fiercely) independent and have a built-in instinct for and pride in an ethic of self-reliance and independence. As such, they already have established marketing systems.
- Prices charged for regional beef, produce, eggs and honey vary widely.
- Food and agriculture are of interest but are perceived to be a small economic opportunity for many First Nation representatives.

- Most local food is sold through direct-to-consumer channels.

General feedback on a food hub

- If you build it, they won't necessarily come.
- Most participants are generally in favour of a local food hub network but need support in initial stages as well as to address core questions around ownership and operations, as well as overall coordination.
- A food hub network in the RDBN should start with the produce sector.

3.2 Challenges and opportunities for agri-food producers in the region

Challenges and opportunities in the agri-food sector have previously been identified through a review of key regional documents, such as the agricultural plan as well as input from key players.

Challenges

General

- Cost of doing business is higher compared to other regions (e.g. shipping over larger distances, challenging growing conditions, higher input costs, lower production economies of scale and higher utility costs).
- Recruitment and retention of staff is challenging because production and processing is very seasonal, especially in the meat industry.
- Major retailers and institutions have strict requirements for listing products.
- The size of the local market is small.
- Non-local products are mainly cheaper than locally produced products (see Appendix A, Table A-10).
- There is a lack of processing facilities and capacity, especially in the meat industry.
- Access to entrepreneur training and business supports is limited.

Producer

- Many producers view government regulations as a key barrier to local food expansion.
- Distance is a key barrier in the region.
- Small producers feel that they cannot afford food hub services.
- Existing kitchen spaces are insufficient for producer needs.
- Food producers must complete many steps to get listed in retail stores.
- Many wholesale food buyers require GAP certification, which can be difficult to obtain.

- Finishing sites for cattle are in short supply

Buyer

- Buyers face challenges buying local meat because they only need selected cuts.
- Some grocery store chains do not make purchasing decisions at the store level.

Opportunities

General

- Some food service buyers rely on major distributors.
- Freshwater aquaculture could be a bigger part of the food economy.
- Some costs are lower compared to other regions (e.g. land).
- A growing demand for local products.
- Plenty of available land for agricultural production.
- Processing capacity exists outside of popular times.
- A growing demand for BC meats.
- Interest in investing in the industry.
- Interest in supporting local producers further.
- Hardier berries such as huckleberries, Saskatoon berries and haskap berries grow well in the region.
- Education and training (see Table 3.1)

Table 3.1 Education and training areas of interest

Education and training areas of interest	**Responses**
Business planning and marketing for small business	26
How to do soil/nutrient testing/create proper food packaging labels	26
Webinars with guest speakers on local food topics	25
How to grow particular crops/do value added processing	23
Take food certification courses (Food Safe 1 and 2, Market Safe)	19
How to operate/manage a local food business	14
How to develop and market products	13
Learn about specialize equipment to grow/raise/process certain products	12
How to start and operate an agricultural cooperative	11
How to become GAP or HCCAP certified to sell to retailers/institutions	11
An incubator program for food entrepreneurs	10

(Source: Producer Survey)

Producer

- Many barriers to institutional food procurement exist, especially for small to medium-scale producers, but these could be overcome in time.
- An opportunity exists to raise beef and sheep on the same land.
- Expanding meat production and processing (primary and secondary).
- Improve product development, processing and marketing.
- Broaden customer base to include regional customers and beyond.
- Meat slaughtering and butchering enterprises face significant labour constraints, which may create new job opportunities.

Buyer

- Buyers liked the idea of ordering a wide range of local products from a single website and have it delivered.
- Pipeline and mining camps could be potential food hub buyers.
- There are good opportunities to be listed in local retail stores.

3.3 Feedback on Potential food hub elements

Feedback on potential food hub products

In addition to traditional RDBN products such as beef and hay, producers identified the following products as having good potential:

- Wild and cultivated berries (e.g. huckleberry, haskap, black currants)
- Fresh and processed produce (e.g. frozen veggies, dehydrated fruit)
- Hemp
- CBD oil production and extraction
- Fresh and dried wild mushrooms (jack pine mushrooms were specifically mentioned)
- Balsam bark harvesting for medicinal use
- Value-added processing for freshwater fisheries
- Value-added products from honey (beeswax candles, soap)
- Grass-finished meat production
- Potatoes
- Greenhouse grown tomatoes, squash and cucumbers for year-round production
- Asparagus, which is ideally suited to grow in northern BC
- Expanded small-scale chicken and egg production (to meet growth in demand while staying below the marketing board threshold)
- Local crafts that can be sold during the winter, potentially as gifts, to create more stable revenues year round
- Wineries, brewhouses, and distilleries, all of which generate revenues year-round.

Feedback on potential food hub equipment, facilities, and services

Producers are interested in a range of food equipment, facilities and services including:

- Food related Equipment
  - Commercial dishwasher
  - Washing, bagging, labeling equipment
  - Canning, freezing, preserving equipment
  - Food processor
  - Dehydration/drying equipment
- Facilities
  - Root cellars to store potatoes, carrots, cabbage to sell throughout the year

- A central place to make direct sales; pick-up drop-off location and warehousing (must have good access to water and ample power)
    - Nutrition label creation station
    - Meeting space
    - Community processing place where I can wash and package products to GAP standards
    - Walk-in cooler and/or freezer space or individual food storage lockers
    - Indoor market/retail outlet
- Food-related services
    - Custom meat processing services (processing meat for own consumption)
    - Shared marketing and brokerage services
    - Distribution service to other areas
    - Collaborative shipping to food labs for nutrient testing
    - Workshops and training classes (canning 101, cooking for families, food safe)
    - Webinars hosted by a BC food processing association
    - Food box program delivered to peoples' homes

The most popular food hub service is a 'local food store' although there was good interest in other potential food hub services. The relative popularity of other food hub services is presented in the following table.

Table 3.2: Potential Food Hub Services (Source: Producer Survey)

Potential Food Hub Service	Responses
Sell products at small 'local food only' retail outlets open 5 days/week	37
Online sales platform where customers can easily order your products	33
Ambient, refrigerated and/or frozen storage space (within 1 hour drive)	25
An aggregation service where your products are packaged (along with other producers) and delivered to customers (within a 1 hour drive)	23
Commercial kitchen / Food processing facility (within 1 hour drive)	21
Food delivery to wholesale customers (eg: retailers and restaurants)	19
Food delivery to homes or consumer drop-off points	18
Business skills training programs for farmers / processors	17
Food delivery to large buyers (eg: institutions, major grocery stores)	15
An incubator program for food entrepreneurs	9

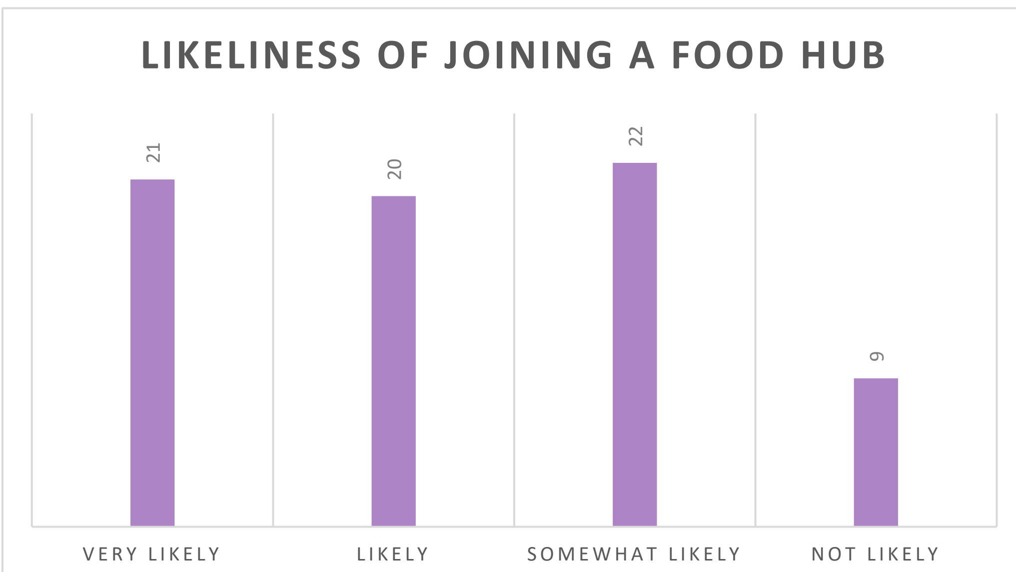
Some existing facilities could be suitable for a food hub. While there are many possible sites within the region, these specific locations were tentatively identified through interviews and surveys:

- The community hall in Telkwa, which has a commercial kitchen.
- The old Dairyland building in Smithers opposite BV Wholesale.
- A 2,000 sf building and fenced yard next to Jim's Independent Grocer in Vanderhoof
- The airport hangar at Fraser Lake
- One of the buildings along the highway at Fraser Lake

Level of readiness to join a food hub

Many people indicated that they would be likely to join a food hub if it helped them to improve the economics of their business. Of survey responses, a high percentage of people (87%) said they were somewhat to very likely to join a food hub.

Table 3.3 Likeliness of joining a food hub



Of the 38 respondents who indicated they are more likely to join a food hub in the near future, their characteristics are as follows:

- 88% are small and medium sized producers with< $100,000 annual revenues.
- 70% are livestock farmers and/or fruit and vegetable growers.
- 88% sell direct to customers/farm gate sales.
- 78% are interested in expanding their business.
- 48% of them are from the Vanderhoof/Fort St. James area.

However, when asked in a separate question if they were ready to join a food hub, the largest segment (45%) of survey respondents indicated that they are not ready or are doing fine now. Although this indicates a lack of readiness/interest, if considered together, 54% of respondents indicated they were almost ready, ready now, or ready yesterday, potentially indicating a good level of readiness for certain producers.

In terms of the interests of these "food hub-ready" respondents, they are most interested in the following hub services:

- Retail outlet (73% of "food hub ready" respondents)
- Online store (65%)
- Food storage (48%)
- Business planning courses (48%)

Based on the responses from "food hub ready" respondents, establishing a retail outlet in Vanderhoof with an online store for livestock and produce growers has strong potential.

3.4 Feedback on Requirements for success of a food hub network

- A better understanding of who would own and operate the food hub is needed.
- Engage grocery chains as shareholders in the food hub.
- Collaborating with post-secondary institutions (who can provide training services) and funders would be beneficial.
- Finding better ways to market local food is key.
- An 'eat local' marketing campaign would enhance a food hub initiative.
- Follow examples of successful operations like Sprout Kitchen in Quesnel.

People expect a food hub to deliver specific outcomes to make it worth it to join. Many respondents highlighted the need for the food hub to be able to reach new markets and customers (regionally and beyond), overcome barriers, provide knowledge and so on. These comments are grouped under the categories below.

- It should increase access to new customers and new markets.
- It should help reduce costs.
- It should improve producer knowledge.
- It should help address regional meat processing gaps.
- It should provide additional benefits.

3.5 Input on key elements of a food hub network

The consulting team asked key players in the region to provide input on the following elements.

Element 1: Set up a coordinating body for the food hub network. Provide more information on how existing organizations like the Smithers Farmers Institute, Nechako Valley Food Network, Springhill, and the RDBN can participate in a coordinating body. Paid coordination time was noted as requirement for this to succeed. For profit and not-for profit models were discussed.

Element 2: Establish a region-wide online marketplace for region-made foods. An on-line platform that addresses gaps of existing ones could provide an important place for food aggregators and brokers to sell product and overcome the hesitancy of many producers in using an online system. This could be preferred as opposed to individual producers selling their own directly to buyers.

Element 3: Provide aggregation/distribution service to fulfill online orders. Highlight the need for someone (e.g. a paid contractor) to work with producers to coordinate crop planning as well as product aggregation and storage (e.g. pick-up/drop-off).

Element 4: Provide a food storage (ambient, cold, and frozen) rental service. Many people have their own on farm storage and that it may be worthwhile to connect with Haskap producers on their plans to build storage and processing for berries.

Element 5: Establish a processing facility. There is a further question on if and how commercial and community food processing could happen in the same facility. Also, as many are already processing on farm, there may not be sufficient demand for this.

Element 6: Identify new value-added processing opportunities. Frozen diced vegetables done at scale to sell to the institutional market and to have a processor that can buy surplus product from farmers to create value-added products.

Element 7: Improve meat slaughter and processing capabilities. Any support in this area would need to benefit a wide range of users and there is likely good opportunity in this area.

Element 8: Provide business, farming and certification services. Both the Nechako Valley Food Network and the Smithers Farmers Institute have been providing this service already. Any food hub network could work to support these existing entities to expand programs.

Element 9: Find ways to collaborate with First Nations. There are many areas of common interest that should be pursued.

Element 10: Establish complimentary local-only "farmers' stores". Changing this to a *local first* store to ensure there is always goods on the shelf. Also, in some areas, there is not likely demand for a local store as there are already businesses filling this role.

4.0 Shifting the Regional Food Economy

As presented in the introduction, the primary goal of this project is to assess the regional food economy and identify strategies to shift the economy in favour of local food. The goal is also to explore the feasibility of a food hub as **an integrated approach** to expand the regional food economy, which encompasses most individual food economy expansion strategies. This section offers potential strategies to: expand the RDBN food economy, present options for a food hub network in the RDBN, gather further input to refine the model, and eventually seek interest from residents to collaborate to develop one.

4.1 Initial Goal: A 2% shift in local food purchasing

Based on our estimates of household food purchases in the Regional District of Bulkley-Nechako, residents in the region purchase about $150 million worth of food at grocery stores and restaurants plus an additional unknown amount through institutions (e.g. hospitals, nursing homes, etc.). A reasonable short term (3-5 yr) goal would be to shift the local food economy so that the percent of total foods purchased from within the region increased by 2%. This would result in an additional $3 million in new local food purchases in the region.

This would also create over 50 new jobs. We calculated this number using the following method. In Table 4.1, we provide information from three studies, one from Ontario, one from the Northeast US and one for Canada about 20 years ago, that suggest that food workers make up about 7% of the total population.

Table 4.1 Estimated number of food workers as a % of population

Jurisdiction	Percent	Information source
Ontario 2013	6.2%	https://www.cbc.ca/news/canada/windsor/ontario-s-wynne-in-a-local-food-fight-with-ottawa-1.1347188
Northeast US 2010	7.6%	https://community-wealth.org/content/25-shift-benefits-food-localization-northeast-ohio-and-how-realize-them
Canada 1996	7.2%	https://www150.statcan.gc.ca/n1/en/pub/21-006-x/21-006-x2002008-eng.pdf?st=9BXPngiL
Average	7.0%	

Based on the current population of the region, we estimate that the current number of food workers (including production, processing, wholesale, and retail sales) is 2,653. Given the $150 million in food spending noted above, this works out to 17.6 jobs per $1 million in food spending. Therefore, if local purchases were to increase by $3 million, this should create about 50 new jobs for local economy. It is likely much higher than that because research studies have shown that for every new local food job created an additional 0.5 to 0.8 job is created other industries that support the food industry.[2]

[2] https://www.google.ca/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjviKLp87ztAhWLtZ4KHf_vDzgQFjACegQIAxAC&url=https%3A%2F%2Fwww.foodsystemsjournal.org%2Findex.php%2Ffsj%2Farticle%2Fdownload%2F664%2F650%2F&usg=AOvVaw2ztYP4PLcDOINkbWyKALqp

Several regions across North America have studied their local food economy and its impact on the community (e.g. jobs, welfare, and nutrition). In Appendix B we provide an overview of some of those studies, the impact of an improved local food economy and their recommendations. The studies show that an investment in the local food economy and an increase in local food purchasing results in a corresponding significant increase in local jobs and the size of the local economy. In the next section we present a range of strategies that will help expand the local food economy to meet the 2% Local Shift.

4.2 Potential strategies for shifting the RDBN food economy

Many RDBN strategies and initiatives are underway to help expand the local food sector. These initiatives, found in the RDBN Food and Agriculture Plan, include climate adaptation pilot projects for agriculture, food economy planning, and webinars. Other strategies include but are not limited to:

- ✓ Extending the slaughter season to more months of the year (e.g. introducing a program to provide cost savings for off-season slaughter).
- ✓ Increasing sales of products to existing distributors.
- ✓ Import substitution - substituting imported products with regional ones.
- ✓ Implement RDBN Food and Agriculture Plan 2020 recommendations:
    - Continue to update and promote the Connecting Consumers and Producers Guide (Action 3.2).
    - Conduct specific product market studies to better understand emerging opportunities, such as haskap berries and non-timber forest products (e.g. like the former *Planning for Profit sheets* provided by the Ministry of agriculture). Products should be Northern appropriate and show promising signs of emerging interest and meeting new demand. (Action 3.4).
    - Develop an overall marketing plan and supporting print and online communication materials for promoting RDBN food and agriculture. This could include branding regional products and develop a shared marketing campaign to promote quality RDBN products (Action 3.5).
- ✓ Work with First Nation Economic Developers and representatives, Northern Development Initiative Trust, College of New Caledonia and others to become a centre of excellence for sustainable management of non-timber forest products.
- ✓ Continue to implement agriculture pilot projects and recommendations from the Regional Adaptation Strategies: Bulkley-Nechako & Fraser-Fort George[3] as well as undertake additional activities to support agriculture adapting to climate changes.

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[3] BC Agriculture & Food Climate Action Initiative. 2019. *Regional Adaptation Strategies: Bulkley-Nechako & Fraser-Fort George*. BC Agriculture & Food Climate Action Initiative.

- ✓ Undertake food hub pilot projects and develop a regional food hub network.
- ✓ Support and encourage investors and entrepreneurs in emerging markets that align with the region's economic development strategies.

4.4 How a food hub network can support most local food strategies

As outlined above there are several strategies that could help shift the local food economy. These strategies encompass different food producers in different areas of the region and would best be tackled collaboratively. One way to do this is to establish a **food hub network**. A food hub network is different from a food hub in that a food hub network links together different components of a local food system whether they are in the same location or not or run by the same organization or not. For example, the BC Ministry of Agriculture currently has a BC Food Hub Network[4] that links current and planned food processing hubs across BC. The benefit of this is it allows food hubs to be tailored to the needs of their community (e.g. seafood processor), while still bringing together services and technology that improves the food industry across the province. Figure 4.1 tries to show how this may look in the region. New Venture Advisors[5], which has worked on several food hub networks in the States, defines a food hub network as:

> "A model through which food hubs across a state or region collaborate formally or informally, to share best practices, business services and (perhaps most importantly) buy, sell and distribute to and from each other."

Benefits of Food Hub Networks

In rural areas, the benefits of food hub networks outweigh the challenges more than urban areas. Food hubs on their own have a limited geography, especially compared with food hub networks. Food hub networks allow communities to connect with other communities increasing the customer base. They can also extend further afield and connect with other food hubs in urban areas, significantly increasing the customer base. Rural areas also tend to have limited services and facilities spaced out over a large area. Having a food hub network links these services and facilities together for food producers and consumers across the region. The result is a more "localised food shed"[6] where more and more food grown in the region is consumed in the same region.

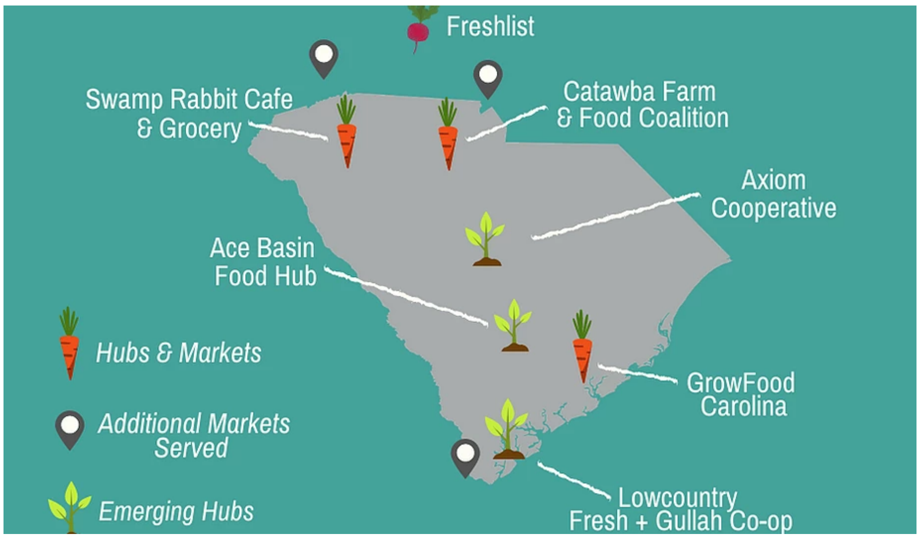
Food hub networks allow existing food businesses or organizations to connect and collaborate to increase the access of local food in the region. The network could also identify gaps within their network and work together to fill them. Services and facilities of a food hub network are the same as a food hub, the challenge is how they collaborate. Technology is

[4] https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/growbc-feedbc-buybc/bc-food-hub-network
[5] https://www.newventureadvisors.net/food-hub-networks-the-local-food-movements-future/
[6] https://www.canr.msu.edu/news/what_is_a_food_shed

helping address this with platforms such as Farm Fare[7] and Local Line[8], providing tools that allow food organizations to collaborate.

A good example of a food hub network is South Carolina Food Hub Network (SCFHN).[9] SCFHN links together 6 hubs and markets in South Carolina and 3 just outside. These are identified below in Figure 4.2.

Figure 4.2 South Carolina Food Hub Network



Their mission is to ensure food hubs of South Carolina have the capacity, network, and support to advance the visibility and viability of local farms by connecting local foods to local markets. They achieve this by working together as a network to coordinate efforts to increase efficiency from farm to table through coordinated regional crop planning, logistics, and farmer training. Network members work with local farmers from planning and harvest to sales and delivery ensuring farmers at any scale can participate in the market.

Creating a food hub network can be one of the most powerful ways to achieve a local food shift because it is integrative by its very design, bringing most or all parts of the food system together. A food hub network can include food production, processing, storage, distribution, retailing, consumption and food waste recovery. More importantly, it creates a way for current businesses and organizations to work together, obtain training and business skills, identify gaps in the food system, engage in joint marketing and share costs so that the products sold through the network are more price competitive with imported food products. We note that competition between producers can arise in a food hub network but by establishing careful protocols on how new business is allocated to the producers in a transparent and fair manner, competitive challenges can be minimized. Almost all of the strategies presented in the previous section, can be addressed through a food hub network.

[7] http://www.farmfare.io/how-it-works

[8] https://site.localline.ca/

[9] https://www.foodhubnetworksc.com/about

Further, they can be addressed in a much more coordinated way, which should allow them to be implemented at a lower cost.

4.5 Building a food hub network to stimulate a 2% shift to local buying

A food hub network could help generate 2% ($3 million) more local food purchases by linking many or all the following food hub network elements:

- **A region-wide linked online ordering platform** where local producers can list their products and where farmers' market shoppers, local households, retailers, restaurants and institutions can order them.
- **A centralized brokering and marketing service** that actively identifies wholesale opportunities for local producers to sell their products and secures partnerships with wholesale buyers, such as grocery stores and local restaurants.
- **A linked aggregation and distribution network** where producers bring their products to distribution nodes where they can be aggregated into customer orders and then shipped to different customers across the region.
- **Food storage services** where producers can rent ambient, refrigerated or frozen storage space so that they can keep their products fresh and sell them over a longer period of time in line with customer demand.
- **Shared food processing facilities** where food entrepreneurs could rent space and equipment to make their food products and then sell them through the food hub network.
- **Co-working office and meeting spaces** for food entrepreneurs and food policy groups to facilitate networking and collaboration among local food participants.
- **Local-food stores** where local producers could sell their products and customers would know that products in the stores were made within the region.
- **Business and technical advisory services** to food producers and processors to improve their production levels, sales and operational efficiency.
- **A food entrepreneur incubator/accelerator program** which could be offered virtually with in person classes at Vanderhoof and Smithers. Food training/certification courses could be offered at College of New Caledonia and/or at the location of the co-working spaces.

Additionally, other services and facilities that food producers use could also be linked into the food hub network. Farmers' markets could play a key role in a food hub network because a lot of their vendors would use their services. Technology, such as Local Line, allows vendors to upload their product information once which can be shared between food hubs, farmers' markets as well as their own CSA/gate sales.

4.6 Long term goal: A 5% to 10% shift to local food

As soon as the 2% local food shift is achieved and the infrastructure is in place that led to its achievement, the next goal will be to expand all of the initial components as the revenues from the local food producers and processors expands. As more products are listed on the online ordering site in greater quantities, more local buyers will use the site to increase the percentage of local food they are buying because it is easy to do so. In addition, the high production volumes will mean that local food producers can now meet the order minimums of large institutional buyers such as hospitals, colleges, retirement homes, etc.

Over ten years, with continued investment (ideally through a coordinated food hub network), it should be possible to reach a 5% shift to local food, resulting in $7.5 million more local food purchases per year than are purchased today. The next goal will be to aim for a 10% shift ($15 million more local food sales) over the next 20 years. However, for this to be achieved, it will likely require the development of new production sectors, such as the continued development of non-timber forest products and specialty food production (e.g. Haskap berries, land-based aquaculture).

5.0 Food Hub Network Readiness Evaluation

As a large region, a lot of diversity exists between, and even within, the sub regions of Vanderhoof, Smithers, and Burns Lake. This means there are different levels of interest in and/or readiness for a range of food hub services and equipment. This section presents a readiness assessment for services and equipment by the community.

5.1 Key conclusions on readiness based on research and engagement

1. There is cautious interest in learning more about what local food hubs and a regional food hub network could look like.
2. Creating a food hub network, consisting of coordinated access to different food infrastructure assets throughout the region is the most viable way to get to scale and become economically viable.
3. Potential exists to put more farmland into production and allow the region to become more self-reliant and there is likely pent-up regional demand for regional products as well as potential markets for emerging products that are suitable to the RDBN.
4. Paid staff time is required to plan, coordinate, and operate any kind of food aggregation, processing, storage, and distribution. Without some funding, volunteer energy is likely to wane and momentum will be difficult to maintain.
5. Generally, Vanderhoof appears most ready to take next steps towards the governance and planning for some type of mixed-use facility in Vanderhoof. There is also interest in the Burns Lake area and Smithers area, but is less well developed at this time.
6. A food hub network will need to start small with a vision to grow in phases and become regionally coordinated. Food brokerage through an online platform could be the most viable way to start.
7. Existing organizations like the Smithers Farmers' Institute and the Nechako Valley Food Network are well-positioned to form a governance team.
8. In addition to economics, food and agriculture are a way to promote community health and well-being and are an important source of community identity and pride.

5.2 Food hub network readiness evaluation

The stop light method provides a synthesis of information to indicate what food hub network components are of interest and what level of readiness exists for services and equipment.

(red)	Not ready or not interested
(yellow)	Interested, but not yet ready
(green)	Interested and ready to go to next steps

Table 5.1 Readiness evaluation of food hub network services

Food Hub Network Component/Service	**Vanderhoof**	**Burns Lake**	**Smithers**
A. Ambient, refrigerated and/or frozen storage space			
B. A commercial kitchen/food processing facility			
C. An online sales platform where buyers can easily order			
D. An aggregation service where your products are packed			
E. Food delivery to wholesale customers and large buyers			
F. Food delivery to homes or consumer drop-off points			
G. An incubator program for food entrepreneurs			
H. Business skills training programs for farmers and/or processors			
I. Selling your products at small "local-food only" retail outlet			

Table 5.2 Readiness evaluation of food hub network equipment

Food Hub Network Equipment	**Vanderhoof**	**Burns Lake**	**Smithers**
A. Standard commercial kitchen equipment			
B. Dehydrators and freeze driers			
C. Meat smokers			
D. Honey extractors			
E. Egg graders			
F. Produce washing, grading, bagging			
G. Label makers			
H. Walk-in coolers			
I. Blast freezer			

As most food hub components are red and amber rather than green, this indicates that some community-specific ideas could be feasible, but that an integrated food hub network in the RDBN will need to start small and then build in phases based on community specific successes at each stage.

6.0 Regional Food Hub Network Model

This section draws on all the findings from the research and engagement work to present and describe a high-level regional food hub network model. We have used the term regional food hub network model to suggest a coordinated, regional approach to food and agriculture infrastructure that works with and, potentially incorporates, existing activities. The regional food hub network model has 10 core elements:

1. Set up a coordinating body for the food hub network.
2. Establish a region-wide online marketplace for region-made foods.
3. Provide an aggregation and distribution service available to all local producers.
4. Add a food storage component to new or existing facilities.
5. Establish a processing facility.
6. Identify other value-added processing opportunities.
7. Improve meat slaughter and processing capabilities.
8. Provide business and technical farming services.
9. Find ways to collaborate with First Nations.
10. Establish complimentary local "farmers' stores".

These elements are described below in the general order of when they will likely occur, rather than in order of priority. Many of these elements are linked to each other and to existing activities in the region. Where possible, these links are also described.

6.1 Set up a coordinating body for the food hub network

A key condition for the success of any food hub network is for all participants (producers, buyers, funders, educators, regulators) to work collaboratively to enhance local food production, processing, storage, sales, distribution, and consumption. One important way to do this is to create a collaborative structure for the network. This could start as an informal network where the participants agree to meet quarterly to discuss ways that the participants can collaborate, support one another, share costs, engage in collective marketing, and so on.

Individual food hub elements can be advanced on their own, but a regional network model will improve the viability of these elements through enhanced coordination, cost sharing and joint marketing. In the short term, it may be sufficient to create sub-regional networks (e.g. Smithers area network, Burns Lake area network, Vanderhoof area network), which then can build into a region-wide network when food sales are sufficient to warrant that.

Growth into a region-wide network will require a more formal structure. Ideally, this would involve establishing a formal steering committee that meets regularly, supported by paid staff.

Suggested implementation lead and support roles:
RDBN could play an initial convening role for the network but ultimately it will be beneficial to create a new organization, independent of but including local government, to govern the food hub network and maximize its potential.

6.2 Establish a region-wide online marketplace for region-made foods

One of the easiest and most effective ways to begin generating more revenues for local producers is to create a user-friendly, region-wide online marketplace where all local producers can list (and price) their products and all food buyers can view them and order them. It is a well-known fact that larger buyers (e.g. grocery stores and institutional buyers) have a limited amount of time to review price sheets and they simply don't have time to look at 30 different price sheets from 30 different producers. By being able to go to one website and see ALL the products that are available in the region and order them with a few clicks on a website, will make it dramatically easier for local food buyers to buy local. Note the grocery stores will likely only be willing to buy from producers that are GAP certified.

It is important to note that online marketplaces have been tried by small groups in certain areas of the RDBN and they have only received modest uptake. One of the reasons is likely because they have not been able to offer a wide enough selection to meet the needs of larger buyers and because they have not had the resources to make all buyers aware of them and find out what those buyers need. Having one website that offers the full range of regionally-produced food products, overcomes the problem of limited selection. Furthermore, by promoting one online food marketplace to all buyers in the region, their marketing impact will be far greater than by each producer operating on their own.

Another reason is that it takes time to make people aware of an online food marketplace and to get people comfortable with buying online for delivery.

To implement this strategy requires first choosing an online food marketplace, which is discussed in the next chapter. The second step is to establish an existing or new entity to manage the marketplace. Initially, an organization such as the Vanderhoof Farmer's Market, which is already using Local Line,[10]could serve as the host, provided that it was willing to allow non-farmer's market producers to list their products on the website. A commission could be charged on all orders made through the website, to cover the costs of administering it and promoting it.

Suggested implementation lead and support roles:
The online marketplace could be run by a non-profit food organization or potentially by a group of producers organized as a co-op or non-profit society. The RDBN could help to promote the marketplace through the Connecting Consumers and Producers Guide.

[10] https://www.localline.ca/vanderhoof-farmersmarket

6.3 Provide aggregation and distribution service

While the online marketplace will help generate many new buyer orders, the challenge will be to fulfill those orders and any other local orders. Initially, producers and processors could manage the fulfilment and delivery/pickup of the orders, which is already happening in the region. BV Wholesale also delivers some local food but is restricted to what it offers and doesn't deliver to households. Therefore, very quickly it would be important to offer an alternative service to allow any local producer to bring their products to central distribution points where the orders can be aggregated and delivered to customers. Large buyers like restaurants, grocery stores and institutional buyers generally require products to be delivered to them and prefer single shipments from many producers rather than multiple shipments from individual producers.

Therefore, the most cost-effective way to fill region-wide orders would be to arrange for someone to travel across the region (or a sub-region), picking up producer products along the way. They would then deliver those products to a central distribution facility where the products would be re-packed into customer orders and delivered to those customers the next day. Initially, third party distributors could be used to pick up from producers and deliver to buyers. However, above a certain volume, it will make more economic sense to have a dedicated driver.

Suggested implementation lead and support roles:
Ideally, the operators of the online marketplace would also operate the distribution facility because they would be packing the orders placed on the online marketplace. However, it would be feasible for those functions to be run by separate organizations provided that there is strong coordination between the online marketplace operator and the distribution facility manager. The Nechako Food Network could perform or coordinate this service in the Vanderhoof area while the Smithers Farmers Institute could do so in the Smithers Area.

6.4 Add a food storage component to new or existing facilities

Few, if any, food storage facilities exist in the region for third party rental. As sales volumes grow through the online marketplace and distribution service, it would make sense to add ambient, refrigerated, and frozen storage space at or near the distribution facilities. Storage facilities could also include rental of root cellars to store products like potatoes, carrots, and cabbage. This would allow producers to drop off their products less frequently and have them stored for a short period of time. Producers that need storage facilities for longer periods of time (e.g. frozen berry storage) could also rent them if sufficient storage space exists. Storage facilities could also be established in other locations as well, provided that the storage revenues would be sufficient to cover the costs of setting up and operate the storage facilities. Shared storage facilities will need to develop and implement protocols so the integrity of products is maintained. For example, organic and non-organic foods can be stored in the same facility, but protocols would stipulate that products would need to be properly packed and labelled.

Suggested implementation lead and support roles:
If cold storage facilities are set up at the distribution facility, it would make sense for them to be run by the same party (e.g. haskap growers). However, if they are set up in other locations, they could be operated by the owners of those facilities, ideally agreeing to charge similar rates for similar storage facilities in collaboration with the food hub network.

6.5 Establish a processing facility or multiple processing nodes

Another component that would help to connect consumers and producers would be to establish one or more food processing facility/commercial kitchen where local food entrepreneurs could rent space and equipment to do value-added processing of local foods.

The economics of the processing facility would work best if it was owned and operated by a food processor that would be the primary user of the facility. Fortunately, this situation exists with a group of haskap growers who are planning to set up a processing facility for their products as well as some frozen storage. If they were willing to allow local food entrepreneurs to rent space in their processing facility, this could significantly increase the production and sale of value-added foods in the region. Note that all of the processed products (including haskap berries) could be sold on the online marketplace, further increasing the percentage of local foods sold in the region.

Suggested implementation lead and support roles:
Given that the haskap growers are in the process of building a processing facility, they would be the natural group to own and operate the processing facility. The Springhill Bison Company could be another good option, or an additional option, if they go ahead with their plans for a commercial kitchen. It would be economically viable to have two processing facilities, provided that there is sufficient demand from third party processors to make the economics work for each facility. Any shared food processing facility in the region would benefit from linking into the food hub network.

6.6 Identify other value-added processing opportunities

Once the food hub network has access to a certified commercial processing kitchen, the goal would be to investigate the economic viability of creating new value-added food products that require some level of processing. These opportunities include:

- Non-timber forest products (eg, wild mushrooms, medicinal herbs)
- Industrial hemp products
- CBD oil production and extraction
- Game farming and fur farming
- Saskatoon berries, chokeberries, and huckleberries
- Processed foods made with locally grown berries (e.g. syrups, jellies and jams)
- Processed fish (e.g. salmon harvested by First Nation fishers)

One opportunity that would require standalone processing facilities but which could generate significant revenues for the local food economy is the development of new wineries, breweries and distilleries that draw some of their ingredients from local food producers. The benefit of these types of enterprises is that they can generate substantial, year-round revenues. Examples already operating in the wider region include the Smithers Brewery, the Bulkley Valley Brewery (also in Smithers), and the Northern Lights Estate Winery in Prince George. The Old Order Gin company in Penticton buys its malted barley from Vanderhoof and an opportunity may exist for other value-added grains to be processed in the region. The RDBN is also near to the Peace region that produces the vast majority of malted barley and wheat in BC but does not have access to BC markets, largely due to transportation costs.

Suggested implementation lead and support roles:
The Nechako Valley Food Network and/or the Smithers Farmers Institute could play a role in this. If research is required, this will likely need to be funded through an education institution with access to research grants such as UNBC or CNC, or through a municipal or regional economic development agency, including the RDBN and Northern Development Initiatives Trust. Community Futures may also be able to provide some support for these research initiatives, once some entrepreneurs have been identified to pursue these initiatives.

6.7 Improve meat slaughter and processing capabilities

When the food hub network establishes a formal governance structure, it could help facilitate improvements in the meat processing sector. For example, the food hub network, and other partners, could work with existing abattoirs in region to come up with strategies such as:

- Introduce peak season slaughter pricing, to reduce the peak season bottlenecks. This would support more all-year-round operations, enabling businesses to retain staff with more permanent employment opportunities.
- Advocate to improve slaughter flexibility and access
- Increase post-slaughter custom meat processing capacity and find new ways to market less popular cuts of meat.
- Find ways to increase the number of in-region beef cattle finishing sites or focus on grass-fed beef.
- Promote mixed farms where beef and sheep graze on the same land.
- Create an RDBN meat product brand so consumers know who they are buying from.

Suggested implementation lead and support roles:
Since this is more of a coordination and facilitation role, it would be best implemented by establishing a coalition of all the major meat production key players, which could be convened by the governing body for the food hub network. This could include local

representatives of the BC Abattoir Association, The Small-Scale Meat Producers Association, the Cattleman's association, abattoir operators, and so on.

6.8 Provide business and technical farming services

Like the successful Beyond the Market program offered a few years ago, a key component of a successful food hub network is access to a range of technical training, business advice, and certification courses. Once the food hub network reaches a certain sales volume and begins to attract new food entrepreneurs, a food entrepreneur incubator program (for new food start-ups) and/or a food entrepreneur accelerator program (for existing enterprises) could be established. Initially, this would be run through Community Futures but at a certain stage it could become a standard program offered by the food hub network organization.

Suggested implementation lead and support roles:
In addition to those parties listed above, some of the services could be provided by local farm business advisors. There will likely be a need for the food hub network organization to canvas producers to find out exactly what training is needed.

6.9 Find ways to collaborate with First Nations

First Nations within the region have a number of local food assets that could potentially be used by the food hub network and they could become financial partners for the network as they have access to grant funding that is specific to Indigenous peoples. A number of First Nations communities have established significant community gardens and greenhouses. For example, Nak'azdli in Fort St. James has a 20' x 15' commercial greenhouse with refrigerated and frozen storage capacity.

The priority of these food assets is to improve health, social connectedness, and food security/sovereignty for indigenous peoples in the region. However, to the extent that First Nations indicate that excess capacity exists, particularly in the case of greenhouses, these facilities could also be used to grow food for the broader community and create employment for First Nation members. The Ministry of Agriculture and Agrifoods Canada has funding available to conduct First Nations agriculture opportunity assessments for commercial scale systems, which then can be used to obtain bank financing. Provincially, there is also the potential of accessing the BC Indigenous Agriculture Development Program.

Suggested implementation lead and support roles:

The food hub network organization would need to actively reach out to specific First Nations and explore opportunities to partner with the food hub network.

6.10 Establish local "farmers' stores"

Existing local food stores like Out of Hand Smithers and Green Zone in Burns Lake already offer a good selection of local food products, which could be expanded as more local food entrepreneurs begin producing/selling new products through the food hub network and on-line platform. In addition to selling products through an online marketplace, some food hub networks develop or link in with "farmers' stores" where producers can sell a range of region-only food products in a traditional retail setting. The Nechako Valley Food Network in Vanderhoof is exploring the options for setting up such a store where residents in and around Vanderhoof may be able to buy local products there in 2021.

Suggested implementation lead and support roles:
If the "farmer's store" was essentially an end of week market at one of the distribution facilities, then it would make sense for the facility operators to run it. However, if it was more of a standalone store, it would make most sense to be run by the owner/operators of those stores. To be successful as a standalone farmer's store, there generally needs to be at least 30 different vendors. Long Table Grocery in Quesnel is a good model to adopt as they offer multiple revenues streams (local grocery, local café, food workshops, subscription box, some processed foods, etc.).

7.0 Food Hub Network Business Strategy

7.1 A phased expansion approach

Because the food hub network does not have any confirmed major sources of funding and because there is uncertainty about the level of demand for the hub network, it is prudent for the hub network to use a low cost, phased expansion approach. These phases are briefly described below.

Phase 1 – Set up network and online orders

In this initial Phase, the hub would simply establish an online sales platform for each of the east and west parts of the region, hire a hub network coordinator, and arrange for access to a small space in or near Smithers and in or near Vanderhoof where producers can drop off their products once a week and have them re-packed into customer orders. A contract driver or third-party shipper could then deliver these orders, also once a week.

Ideally there would be nearby access to a walk-in cooler and walk-in freezer so that partial cases of products can be stored in between packing days. To give the hub a strong start, it would be important for a high percentage of the producers currently selling to grocery retailers, restaurants, or institutions, to shift their existing sales to the hub.

In this phase, the hub network could also begin offering food entrepreneur support programs, preferably in partnership local government agencies. This could include food/farm incubator programs for food enterprise start-ups, or accelerator programs for established food enterprises that want to take their business to the next level.

Phase 2 – Rent a permanent warehouse space

Once the volume of business reaches a level where the amounts being paid each month to rent packing space and product storage space is close to what it would cost to rent a dedicated facility in either the Smithers or Vanderhoof area, the hub would begin leasing a dedicated warehouse space and ideally install a walk-in cooler and a freezer. At this point, it would also be important for a particular entity to manage and operate the food hub and online ordering components (although the network could continue for other elements).

Producers would deliver their products to this new facility and may be able to do some short-term storage to reduce the number of trips to the hub. Depending on the number of customers, it may be necessary for the driver to expand to multiple delivery days. If so, it will likely make financial sense to lease a vehicle instead of using third party distribution. This phase would likely start in year 2 or 3.

Phase 3 – Add a small retail presence and processing facility

Once the food hub network reaches the next level in sales where it is making a consistent small financial surplus each month, it could then add small retail and processing components. In terms of retail options, it could:

- Sell products from the warehouse 1 day per week (if the location and zoning allow it).
- Launch a stationary or mobile pop-up market in location with a significant amount of walk-by traffic in an area that matches its core customer demographic. The market could operate 4 hours at a time in one or more locations each week.
- Rent a stall at a local farmers' markets (if allowed and only if the producers that would be represented in the staff would not want to sell directly through the market).
- Create a retail outlet that strongly favours local foods and artisan crafts (ideally with products from at least 30 different suppliers).

On the processing side, it could pursue two options:

- Establish a small 500 square foot commercial kitchen where members could process certain foods and the hub could provide cooking or food processing classes.
- Establish a larger shared use processing facility where both producers and non-producers could rent the space, access a range of shared processing equipment, and rent cooler and freezer space. This option would ideally have one anchor producer with enough volume to cover at least 50% of the operating costs.

Both the retail and processing operations will need to be able to generate a solid profit from their own activities. This phase would likely start in year 4 or 5.

Alternative Start-up Approach

In the event that not enough key requirements are established to launch Phase 1 (e.g. funding, location, distribution channels, a wide number of producers, and/or a qualified general manager), a low-cost alternative approach could be pursued. This approach involves the producers investing their own time to complete tasks that would have been performed by paid staff and providing their own equipment and facilities instead of having those be leased or purchased by a food hub entity.

To make this work there will need to be clear agreement on each of the producers' roles, responsibilities and equipment/facility contributions. The producers will also need to agree on the products being sold, pricing, margins and cost structure. An example of this low-cost approach is Saanich Organics in Saanich, BC where three neighboring farms decided to form a mini-hub to aggregate their product and distribute it to local restaurants, retailers and customers in their region. One of the farms is the depot location, another farm provides a truck and they all commit to completing a defined number of hours to operate the hub. The proceeds from the hub are not sufficient to cover the cost of their contributed time, but do cover out of pocket costs, including a rental fee for storage and docking space and truck use.

7.2 Operations plan

Establishing an online sales platform

One of the key success ingredients for the hub is to have a strong online sales platform. This platform needs to have the following key functionality:

- Producers can list their products, set prices and remove products when they run out.
- Buyers can search the full list of available products and add them to their shopping, for delivery on a single order and a single invoice.
- Buyers can integrate this software with other accounting, inventory and sales software.
- Packing staff can print out a "packing list" for each customer order.
- Delivery staff can set delivery charges for each order, sequence their deliveries and print out a delivery list.
- Accounting staff can easily import orders into an accounting software program to create financial statements.

The platform also needs to have a low cost of use. Fortunately, a number of online ERP (Enterprise Resource Planning) platforms are now available, making it unnecessary to develop a customized software program. An overview of some of the more established ERP services is presented in Appendix G.

Producers who already sell online through their own website or other channels like Facebook could sell on both the region-wide platform and their current platforms. Alternatively, they could list their products only on the region-wide website and encourage all their customers to go that site to buy their products and a wide range of additional products as well. Online platforms like Local Line allow vendors to offer different delivery and pick up options, including their own farm, the farmers' market and home delivery. Similarly, the platform allows vendors to offer different products and different prices to different type of customers (e.g. households vs. restaurants). This would significantly improve the economics of the food hub network, which in turn would allow it to do more marketing on behalf of the food producers, leading to a sufficient increase in sales to more than offset the commission charged to the producers to run the online marketplace.

Initially, it may make the most sense to establish two sub-regional online marketplaces, one for the east part of the region and the other part of the region. To be successful, and online marketing place needs to build quickly to offer products from at least 25 different vendors and to have at least 10 buyers willing to order weekly on the marketplace. If they allow individual customers to order, a minimum of 50 orders are needed each week.

Fulfilling orders placed on the online marketplace

Once orders are placed on the online sales platform, the next step is to re-pack the producer products into customer orders. Typically, producers will drop off the products that all their customers have ordered for the week at a central distribution point where those products are then re-packed into individual customer orders. The distribution point can be as simple as a meeting spot in a parking lot where the orders are literally re-packed on the back of someone's truck. However, once a certain volume of orders is reached, it is much more practical to have a small warehouse space where a basic packing line can be set up and larger orders can be stacked on pallets and moved with a pallet jack. At larger sales volumes it makes sense for the distribution facility to have storage space so that items that need to be kept refrigerated or frozen can be stored overnight.

In the Vanderhoof area, the Springhill Bison Company plans to deliver products from its facility and may be interested in providing this service for other producers. In the Smithers area, the aggregation service could be coordinated by the Smithers Farmers Institute. Alternatively, a vehicle could set out from Smithers, picking up products from producers at pick-up points in the major towns along Highway 16, arriving in Vanderhoof in the afternoon. The orders would then be packed in the evening or early morning the next day and then delivered to customers along the same route in reverse, returning back to Smithers at the end of the second day. When the business volume further increases, this same journey (or in reverse) could be made twice per week. The service could also collaborate with other distributors such as BV Wholesale to provide more local food delivery options for producers and customers.

Providing access to ambient, refrigerated and frozen storage space

Given that food storage space (particularly refrigerated and frozen food storage space) is always in short supply, and initial task is to canvas local producers, distributors, and retailers to find out who may have excess storage space that could be rented on a daily, weekly, or monthly basis. Food storage is often rented as a fee per pallet and prices are lowest for ambient temperature storage and highest for frozen food storage. The hub network could create a simple online rental website using sharetribe (https://www.sharetribe.com/how-to-build/rental-marketplace/) or booqable (https://booqable.com) and then charge a commission on each booking rental. Once the network built up sufficient demand, it could purchase its own cooler/freezer, ideally very near where the customer orders are packed.

Providing access to a food processing facility

Access to a food processing facility is key to enabling micro-entrepreneurs to make their products in a way that meets health regulations and allows them to sell to retailers and institutional buyers. Generally, the lowest cost option is to find a restaurant that has closed down as it will already have a commercial kitchen with proper venting. This is a more expensive food hub component and should only be pursued if the hub can find enough tenants willing to rent space in the facility so that it is able to operate at a minimum of 33% of its capacity (and ideally 50%) as soon as it opens. As noted in chapter 6, a good place to start is to approach the Haskap growers and the Springhill Bison Company, as both companies are planning to set up processing facilities and may have excess space to rent.

Re-establishing a poultry abattoir in Vanderhoof

One specific need that was identified by key players was a poultry abattoir in Vanderhoof as there was a successful one operating many years that recently closed because the owner retired. Given that there is proven demand for such a facility, the food hub network could seek funding to prepare a business plan/feasibility study similar to the one developed by the Windermere Farmers Institute for an abattoir in Windermere.[11] In that case, the Windermere Farmers Institute set up the abattoir and then leased it out for $5,000/month to an owner/operator, creating a long term revenue stream for the organization. This opportunity would likely depend on significant funding from government agencies. In the case of the Windermere Farmers Institute, over 80% of the construction costs came from government. The cost to build a poultry facility that processed 20,000 birds per year would be about $250,000. A company called Plant In A Box is an example of a turnkey poultry abattoir[12].

Providing access to technical and business training services

This component of the operations plan involves canvasing local producers to determine which services they most need and then to find parties that can provide those services. These services could include the following:

- Business planning and marketing for small producers and processors.
- How to grow particular crops/do value added processing.
- Complete food certification courses (Food Safe 1 and 2, Market Safe).
- How to operate/manage a local food business.
- How to develop and market products.
- How to start and operate an agricultural cooperative.
- How to become GAP or HCCAP certified to sell to retailers/institutions.
- Testing of soil, nutrients and other elements.

The food hub network organization could coordinate these training programs, which could be offered and/or delivered by various organizations such as BC Ministry of Agriculture (working with local agrologists), College of New Caledonia, Coast Mountain College in Smithers, and Community Futures. The courses would be offered on a fee for service basis with the food hub network organization earning a commission for marketing the courses and registering the students.

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[11] http://www.wdfi.ca/Abattoir/Abattoir-History/Abattoir-Business-Plan---Econ-Impact-Analysis---Sep-2013-sf.pdf
[12] https://www.plantinabox.com/products/1

7.3 Governance and management plan

Pre-launch steering committee

To advance the food hub network, a formal steering committee will be created to advance the initiative from project to enterprise. A Terms of Reference is provided in Appendix H. The purpose of the Agri-Food Hub Network Steering Committee (The "Steering Committee") will be to:

- Advance the vision for more food production and a stronger regional food economy.
- Raise funds for the prelaunch phase and first 2 to 3 years of operation.
- Finalize a headquarters location for the Network, based on a clear set of criteria.
- Finalize who should own/operate the Network.
- Begin implementing the Implementation Plan in the recently prepared Business Plan.
- Make a final decision about whether or not to proceed with the Network.
- Facilitate a smooth transition of its duties to the ultimate Network Owner.

Duties of the Steering Committee

The duties of the Steering Committee are to:

- Meet monthly to work on the above objectives.
- Raise funds to support the work of the Steering Committee and the Network.
- Review relevant information to determine whether to proceed with the Network.
- Make recommendations about various aspects of the Network, including its primary locations and key partners.
- Be the primary group that liaises with interested key players on issues related to the development of the Network until a Network Owner is established.

Membership of the Steering Committee

The Steering Committee will consist of about 16 members that reflect a broad spectrum of interests relevant to the proposed Network. Membership to the steering committee will be invite only. Represented interests should include:

- 1 representative from the Regional District of Bulkley-Nechako
- 2 representatives from the BC Ministry of Agriculture (farming and processing)
- 2 primary producers
- 2 processors (1 of whom is an abattoir)
- 1 non-food producer or processor that relies on primary production inputs
- 2 local food buyers (grocery retail and/or restaurant)
- 1 representative from Community Futures
- 1 representative from Nechako Valley Food Network
- 1 representative from the Smithers Farmers Institute

- 1 representative from a farmers' market
- 1 representative from a financial institution
- 1 representative from a First Nation community

Some members of the Steering Committee may hold dual roles, which could further enhance the breadth of community representation on the Steering Committee.

Key Roles within the Steering Committee

Key roles include the following:

- **A Chairperson**. This person will be appointed from within the membership and will be responsible for preparing meeting agendas, chairing the meetings, reviewing minutes, meeting with key key players interested in the Network, and responding to media requests. Depending on the magnitude of work related to this role, it may be shared by two people.
- **A coordinator/ minute taker**. If there is sufficient budget, a person will be hired on a part-time basis to coordinate Steering Committee logistics, record and distribute meeting minutes, conduct research, prepare updates, and coordinate social media.
- **Fundraising Committee (optional):** A three-member Fundraising Committee could be established to coordinate efforts to raise funds for the work of the Steering Committee, led by a Fundraising Committee chair
- **Membership Committee (optional):** A three-person Membership Committee could be established to identify and recommend new members for the Steering Committee in the event of member resignations, again led by a Membership Committee chair.

Frequency of Meetings

The Steering Committee meets every month or two months via videoconference. 50% of members plus 1 person is needed to achieve a quorum at any given meeting.

Operational governance structure

The Steering Committee will play a key role in establishing the food hub network and coordinating it in the early days. Once the Network has been established, the new organization will take over the duties of the Steering Committee and the Steering Committee be dissolved. The new organization will represent a dynamic group of diverse key players from across the region, allowing new key players to join, and existing ones to leave, depending on the needs of the region. The key role needed to run the food hub network will therefore be a coordinator that earns the trust of different kinds of key players (e.g. farmers, markets, not for profits, distributors, buyers, food processors). Once the food hub network is successful in raising funds for operational purposes, we recommend that it be set up as a non-profit society incorporated in British Columbia. An advantage of being a not for profit is the network can access grant funding and potentially donations to help fund its launch and certain programs such as workshops.

Key players will need to buy an annual membership in the Network to work with it or access its services, facilities, or programs. There will be 2 types of annual memberships:

(a) **User membership** - User memberships are for businesses that will use the services, programs and facilities of the Network. User members will be able to attend the AGM and vote on any motions.

(b) **Buyer membership**. Buyer memberships are for individuals or organizations wanting to buy product from the Network.

A tiered membership fee is preferable, as outlined in the following example:

User member annual revenues	User Annual Membership Fee
<$10,000	$50
$10,000 to $100,000	$100
$100,000 to $250,000	$250
$250,000 to $500,000	$500
>$500,000	$750

Buyer type	Buyer annual membership fee
Retail (household)	$50
Wholesale (restaurant)	$200

Annual memberships give the member access to any service, program or facility the food hub network or its partners provides during the term of their membership.

The not for profit will require a name search to be submitted to the provincial registry and, once approved, to be followed with an application to form a provincial society under the societies act. The non-profit society will be governed by a volunteer board and will apply for charitable status as soon as it qualifies.

Board of directors

Once the food hub network has transitioned from a steering committee to a society, it will establish a strong and effective board that has members with the following range of skills and knowledge:

- Knowledge and experience in local agriculture and food processing
- Experience as a local entrepreneur or advisor to local entrepreneurs
- Financial management and accounting
- Strategic planning and sales management
- Human resource management and leadership

To achieve this, the board size should be initially set at 10 people, one of whom will be the Executive Director. When the food hub network forms key partnerships with other enterprises within the region, then a member from that enterprise will be asked to be a board member. Examples include farmers' markets, local retail stores, 3rd party distributors and cold storage facilities. Board members also must be paid members of the food hub network. The board will meet quarterly.

The Executive Director

The Executive Director position is the most important role for the food hub network. Ideally the person who fills this role will have the following skills and knowledge:

- Have good general knowledge about local food production, distribution and retailing.
- Be respected by local food producers and processors.
- Be an excellent networker with exemplary interpersonal skills.
- Be very entrepreneurial; able to identify and implement revenue generating services.

The Executive Director will report to the Board of the Society that governs the network and have the following primary duties:

- Liaise with local producers and processors to understand their needs and connect them with the services and resources they need.
- Oversee implementation of service work provided directly by the network.
- Manage the day-to-day operations of the network and supervise all staff.
- Speak at local and regional events on the importance of local food expansion.
- Provide quarterly progress reports to the Board of Directors.

Staff roles

The network may rely on several potential staff roles once sales and profits reach a certain level. However, it is likely that, at least for the first full year, all of these roles will be performed by the Executive Director. These roles are discussed below.

Sales coordinator – Duties are to:

- Identify market opportunities.
- Connect with local food buyers to understand their needs.
- Facilitate meetings between producers and buyers.
- Finalise purchase agreements.
- Provide account management support.

Marketing assistant – Duties are to:

- Conduct research.
- Identify potential partnerships.
- Maintain the website content and regularly monitor and update social media.
- Help prepare proposals and grant applications.

Project coordinator – Duties are to:

- Manage the logistical details of fee-for-service projects.
- Liaise with partners, contractors and consultants to ensure work is done in a high quality, timely and cost-effective manner.

Office administrator/book-keeper – Duties are to:

- Track revenues and expenses and enter receipts into an accounting software program.
- Perform other administrative duties such as purchasing supplies, organizing the logistics for meetings/events.

Partner and contractor roles

The Network will likely engage several partners and/or contractors to provide certain services that are contemplated for the enterprise. These could include the following:

- Trainers that provide various training courses
- Distributor or distribution driver
- Equipment rental
- Facility rental
- Local food store

7.3 Marketing and promotions plan

Market positioning

The region has a range of food and agriculture organizations that support food growers and processors, each with their own specific goals and clients. An important role of the Network is to collaborate with these organizations to co-ordinate, enhance and promote their collective services. The Network will do this in three ways:

- Develop close ongoing relationships with the organizations and partners.
- Create a welcoming physical location that brings people together to create an exciting energy around agri-food businesses in the region.
- Develop a comprehensive and dynamic website that highlights the services in the region, promotes workshops and other related events, allows food businesses to rent equipment and/or facilities and enables customers to buy products from local producers and processors.

A second key role of the Network is to directly increase the revenues of food producers and processors in the region, as a networker, broker and distributor. Depending on the Network's business growth this could range from being a connector to a full aggregation and distribution service (potentially supported by a regional brand).

Finally, the Network will also be a key promoter of the region to encourage producers and processers to launch a farming operation or food enterprise.

Key User Groups

The Network will serve the following key user groups:

- **Primary users** of the Network will consist mainly of primary producers (e.g. farmers, ranchers, hunters, fishers, foragers) and food processors (e.g. beverage manufacturers, meat processors, preserved food manufacturers). Those located closest to the Network's services are expected to use its services weekly, while ones further out will likely use them on monthly or quarterly basis. Primary users will also include potential new food and farm business owners that are considering establishing a food enterprise in the region.

- **Secondary users** are those organizations and individuals that buy products from the producers and processors as follows:
  - Retailers (e.g. independent grocers, restaurants, pubs, cafes) and
  - Institutional buyers (e.g. hospitals, schools, municipalities).
  - Distributors (local and long-distance distributors)

The Network will need to engage with them to increase demand for its primary users.

- **Tertiary users** include those parties that use some services of the Network but are not direct participants in the food value-chain. These will include small businesses using the co-working space, non-food groups wanting to rent equipment and facility space, individuals wanting to take courses or workshops through the Network.

- **Partner users** of the Network are a special group that includes food related associations or support agencies (e.g. industry associations, government agencies, farming institutes, farmers' markets).

Unique Selling Propositions

The Unique Selling Propositions (USPs) for the Network include the following:

- The region's most important source of information on farming and food processing.
- The best collaborator of agri-food key players in the region.
- The widest-range of services offered to agri-food entrepreneurs in the Region.
- The most important catalyst for expanding agri-food business sales in the Region.
- The best locations for food producers to connect and discuss agri-food opportunities.

Branding and messaging

Once sales reach $500,000, or if the Network gets funding, the Network will create a regional brand that represents agri-foods across the Bulkley Nechako region. It will call itself a Regional Agri-Food Hub Network and may also include a geographic label such as the

Bulkley-Nechako Agri-Food Hub Network. Its tag line will highlight the Network's role as supporting and growing the agri-food sector in the region.

The tag line may also help to define its geography (e.g. "Growing the food economy from Smithers to Vanderhoof"). Imagery for the Network will highlight producers and processors and messaging will highlight the value in supporting the local food economy (e.g. "There's no taste like home").

Market development strategies

The Network will pursue the following general market development strategies:

1) Execute a marketing outreach program - The Network will develop a comprehensive list of potential service providers and users in the Region and then conduct an outreach program to engage with them. Most of the Network's contacts will be obtained through personal relationships and connections of the Steering Committee and producers, plus the following methods:

- Attend/speak at community and food-related events (e.g. local business networking events, workshops, grower AGMs, conferences, fairs and association gatherings),
- Generate referrals through the Network's board and partners (e.g. Chambers of Commerce, Community Futures, farmers' markets, Small Scale Food Processors and grower associations).

The strategy should focus on building a good list of contacts and continually updating it, ideally using a customer relationship management tool (CRM) such as Zoho or SalesForce.

2) Maintain and promote an information-rich website - The Network will develop and promote its own website with important information for regional agri-food businesses. The website will be promoted using a Search Engine Optimization strategy to maintain high visibility. This is so that when potential clients, within the surrounding regions, search for agri-food services, the Network's website will be on the first page. The website will start with a few web pages and then be developed over time in line with the services offered by the Network. Most of the content will be provided by 3rd party service providers (e.g. workshops, consulting services) and therefore added as those services are available.

3) Create an online presence through social media services - Building on the website, the Network will create accounts with popular social media services including Instagram, YouTube and Facebook. The Network will regularly publish content to these accounts, highlighting agri-food services in the region. As revenues increase, the Network will also produce a newsletter each quarter highlighting client successes, its services and other local food news. The newsletter will be disseminated by email and social media channels.

4) Create branded materials - Once the Network has achieved some initial market penetration, the Network will create printed materials such as business cards, flyers, stickers and other promotional materials that highlight the region and the services of the Network and its partners. The materials will be predominantly available at the Network, but also used at trade shows and meet and greet events.

5) Develop a public relations strategy - The Network will prepare a list of media organizations (e.g. newspapers, community papers, online publications, trade publications, radio, TV, etc.) and send out press releases about major agri-food events and success stories (e.g. key milestones of the Network, new business openings, conferences and major producer and processor developments). The Network will also promote classes, workshops and other services by advertising in selected media outlets and by radio. As the service grows, new promotional strategies can be added to this list as sales and marketing is an ongoing task that needs increasing support as the Network grows.

6) Host "Meet and Greet" events - Once the BC government has allowed public gatherings, the Network will organize, and host meet and greet events, where producers and processors can meet with potential buyers. These can be hosted throughout the region as well as virtually using video conference facilities.

7) Create trusted relationships with key players - It is essential the Network be seen as a trusted and reliable partner in the region. To do this, the Network will conduct itself in a professional manner, strive to embed itself in the regional food producing community, and demonstrate unwavering commitment to growing the agri-food sector in the region.

8) Focus on client retention - Once the Network has established an initial list of clients and contacts, every effort must be made to retain its relationship with them. To do this the Network will provide a high level of customer service and provide essential services for the success of its clients, including:

- Be attentive to client's needs and actively help them grow their business (e.g. identify sales opportunities at grocery stores and restaurants, bring in experts that can provide financial, business, marketing and/or production advice).
- Provide a welcoming environment at Network facilities where people want to linger and connect.
- Offer services that are strongly needed, high quality and affordable.
- Attract a broad range of service providers.
- Nurture collaboration among clients and partners.

7.4 Financial plan and funding sources

Initial start-up costs

The initial start-up costs for the Network Steering Committee will likely be somewhere between $25,000 and $40,000, while the initial start-up costs for the Network non-profit society will be between $60,000 and $100,000. Note that these cost estimates exclude time that will likely need to be spent by RDBN staff on planning support. A breakdown of the initial start-up costs is presented in Table 7.1.

Table 7.1 Start-up costs for the RDBN Food Hub Network

Description of start up costs for steering committee	Low cost Estimate	High cost Estimate
Implementation planning labour	$15,000	$25,000
Local travel and meeting costs	$4,000	$6,000
Develop simple information website	$3,000	$5,000
Create initial social media presence	$3,000	$4,000
Total	**$25,000**	**$40,000**

Description of start up costs for non-profit society	Low cost Estimate	High cost Estimate
Implementation planning labour	$25,000	$35,000
Do name search and incorporate non-profit society	$1,000	$1,000
Prepare initial branding (logo, letterhead, biz cards)	$3,000	$5,000
Develop on-line ordering website	$5,000	$10,000
Marketing and communications for the network	$15,000	$25,000
Computer equipment for 1-2 staff	$3,000	$4,000
Office furniture for basic network office	$8,000	$20,000
Total	**$60,000**	**$100,000**

Once the Network moves into implementation, it will be important to expand gradually in phases. We have identified three key development phases spanning roughly five years. The key elements of these phases are presented in Table 7.2.

Table 7.2 Food hub network phases and key revenue categories

Food hub network elements and revenues categories	Phase 1	Phase 2		Phase 3	
	Year 1 Set up network+ online orders	**Year 2 Activate existing assets/services**	**Year 3 Add low capital initiatives**	**Year 4 Add processing facilities**	**Year 5 Buildout + specialty elements**
Key elements	Membership fees Online ordering 2 packing sites Third party rentals	Membership fees Online ordering 2 packing sites portable coolers reach in freezers	Membership fees Online ordering 2 warehouses 2 walk in coolers 2 walk in freezers 1 comm. Kitchen	Membership fees Online ordering 2 warehouses 2 walk in coolers 2 walk in freezers 2 comm kitchens 1 training rm 1 cross/dock site	Membership fees Online ordering 3 warehouses 3 walk in coolers 3 walk in freezers 2 comm kitchens 1 training rm 1 warehouse Specialty/equip. Retail presence

Assumptions

We created revenue and cost assumptions for the key food hub network services. These are summarized in Table 7.3 and are used as the basis for the key revenue and cost of sales categories in the 5 year forecast. We caution that each of the assumptions may need to be significantly adjusted and therefore we recommend that the demand for each service be tested before expending a significant amount of funds to develop each service.

Table 7.3 Key assumptions for the key revenue and expense categories

Food hub network elements and revenues categories	Phase 1 Year 1 Set up network+ online orders	Phase 2 Year 2 Activate existing assets/services	Phase 2 Year 3 Add low capital initiatives	Phase 3 Year 4 Add processing facilities	Phase 3 Year 5 Buildout + specialty elements
Membership fees					
Number of user members	20	25	30	40	50
Average revenue per user mem	$75	$100	$125	$150	$200
Number of household membe	30	70	120	160	200
Avg revenue per household me	$50	$50	$50	$50	$50
Number of wholesale members	10	20	30	40	60
Avg revenue per wholesale me	$200	$200	$200	$200	$200
E-commerce Sales					
Number of producers	20	25	30	40	50
Number of products offered	40	50	60	80	100
Sales per product/year	600	1000	1260	1760	2300
Average revenue per product	$4.00	$4.25	$4.50	$4.75	$5.00
Margin on sales (broker fees)	10%	10%	10%	10%	10%
Margin on aggregation/distrib	20%	20%	20%	20%	20%
% of orders fulfilled by produce	20%	14%	12%	10%	10%
Sales to institutions					
Number of institutions	1	3	5	6	7
Orders per year	$10,000	$12,000	$14,000	$16,000	$18,000
Brokerage fees on sales	10%	10%	10%	10%	10%
Third party distribution					
Number of totes /delivery day	20	60	100	150	200
Number of delivery days/mo.	4	4	8	8	12
Charge per tote delivered	$7.00	$6.75	$6.50	$6.25	$6.00
Margin on third party distributi	30%	30%	35%	40%	45%
Equipment rentals					
Equipment rental hours per mo	8	30	60	80	100
Equipment rental fee per hour	$20	$20	$20	$20	$20
Commission % on rental fees	12%	15%	20%	35%	50%
Facility rentals					
Facility rental hours per month	16	50	200	300	500
Facility rental fees per hour	$20	$25	$26	$27	$28
Commission % on rental fees	12%	12%	12%	12%	12%
Food storage rentals					
Pallet-days of storage/mo	8	50	100	200	400
Storage rental fee/pallet-day	$15	$15	$15	$15	$15
Commission on third party stor	10%	10%	25%	25%	25%
Consulting services (one on one)					
Consulting hours/month	20	50	100	200	300
Average consulting rate charge	$60	$60	$60	$60	$60
Average consulting rate paid	$50	$50	$50	$50	$50
Training progams (group)					
Training hours/month	40	80	200	300	400
Average fee per training hour	$25	$25	$25	$25	$25
% margin on traning hours	15%	17.5%	20.0%	22.5%	25.0%
Other revenues as % of total re	1%	2%	3%	4%	5%
Margin on other revenues	20%	22%	24%	26%	28%

Summary five-year financial projections

In Table 7.4, we present the summary five-year financial projections for the network, which estimate the revenues rising to just over $2 million in Year 5. The Network is projected to incur declining losses in years 1 to 3 before finally reaching a financial breakeven in year 4. These projections are highly speculative but they are hopefully conservative given the geographic area covered by the Network and the broad range of services that it could potentially offer.

Note that at the top of this table, we have estimated the rough magnitude of revenues that the Network would generate in retail expenditures. This shows that if the network achieved these results, the local food economy would be expanded by $3.0 million. In Table A-1 (Appendix A), we calculated that Bulkley Nechako residents spend about $150 million on food. Therefore, if the Network achieved $3.0 million in food sales, it will have created a local food shift of about 2% of local purchases, which was one of the goals for this project.

Table 7.4 Summary five-year financial projections for the Food Hub Network

Food hub network elements and revenues categories	Phase 1	Phase 2		Phase 3	
	Year 1 Set up network+ online orders	Year 2 Activate existing assets/services	Year 3 Add low capital initiatives	Year 4 Add processing facilities	Year 5 Buildout + specialty elements
Retail value of food sales	**$206,360**	**$552,750**	**$1,104,900**	**$1,856,000**	**$2,986,000**
Revenues					
Memberships	$5,000	$10,000	$15,750	$22,000	$32,000
Online sales + distribution	$96,000	$212,500	$340,200	$668,800	$1,150,000
Sales to Institutions	$10,000	$36,000	$70,000	$96,000	$126,000
Third party distribution	$560	$1,620	$5,200	$7,500	$14,400
Equipment rentals	$8,000	$30,000	$60,000	$80,000	$100,000
Processing Facility rentals	$3,840	$15,000	$62,400	$97,200	$168,000
Food storage rentals	$1,440	$9,000	$18,000	$36,000	$72,000
Consulting services	$14,400	$36,000	$72,000	$144,000	$216,000
Training programs	$12,000	$24,000	$60,000	$90,000	$120,000
Other revenues	$1,462	$7,282	$20,634	$48,780	$98,320
Total revenues	**$151,240**	**$374,120**	**$703,550**	**$1,241,500**	**$1,998,400**
Cost of Goods Sold					
Online sales + distribution	$82,560	$172,550	$270,799	$541,728	$931,500
Cost of sales to institutions	$9,000	$32,400	$63,000	$86,400	$113,400
Third party distribution	$392	$1,134	$3,380	$4,500	$7,920
Equipment rentals	$7,040	$25,500	$48,000	$52,000	$50,000
Processing Facility rentals	$3,379	$13,200	$54,912	$85,536	$147,840
Food storage rentals	$1,296	$8,100	$13,500	$27,000	$54,000
Consulting services	$12,000	$30,000	$60,000	$120,000	$180,000
Training programs	$10,200	$168	$480	$810	$1,200
Other revenues	$1,170	$5,680	$15,682	$36,097	$70,790
Total Cost of Sales	**$127,037**	**$288,732**	**$514,071**	**$917,974**	**$1,485,860**
% gross margin	16.0%	22.8%	26.9%	26.1%	25.6%
Overhead labour	$80,000	$100,000	$140,000	$190,000	$220,000
labour as % of revenues	52.9%	26.7%	19.9%	15.3%	11.0%
Non-labour expenses	$18,149	$41,153	$70,355	$111,735	$179,856
Expenses as % of revenues	12.0%	11.0%	10.0%	9.0%	9.0%
Surplus/loss	**($73,946)**	**($55,765)**	**($20,876)**	**$21,791**	**$112,684**
Surplus/loss as % of revs	-48.9%	-14.9%	-3.0%	1.8%	5.6%

Key Sources of Funding

A number of potential sources of grant funding may be available from government agencies and foundations. The Network may also be able to apply for loans from Community Futures and other lenders as well as pursue private donations and crowdfunding.

Possible funding sources for the Centre include the following:

- **Regional District of Bulkley-Nechako** – The region has already provided financial support for the food hub in various ways but is nonetheless an obvious choice.
- **BC Ministry of Agriculture** Food Hub Network– They could provide up to 3 years of operating costs for a food hub, if the services offered matched their program requirements.
- **BC Investment Agriculture** – They could provide up to 3 years of operating funds.
- **Agriculture and Agri-Food Canada** – The federal government offers a wide range of funding programs, each with a particular focus (e.g. technology and cleantech demonstrations, diversity programs to better allow youth, women, indigenous peoples and people with disabilities)[13].
- **BC Investment Agriculture Foundation (IAF)** – They offer funding for Buy Local programs, agri-innovation, environment and climate change initiatives and BC health programs[14].
- **Northern Development Initiative Trust** – They funded the Agricultural Coordinator position for the Bulkley Nechako Regional District. They may be a source of seed funding for the Executive Director role.
- **BC Rural Dividend –** This BC program provides $25 million/year to help rural communities with a population of under 25,000 to reinvigorate and diversify their local economies. The most applicable program is one where a municipality or non-profit can apply for up to $100,000 provided that they provide at least 20% of the total cost via financial or in-kind contributions.

Other sources of funding

Below we list some other sources of funding for the centre.

- **Loans** – The Network could obtain a loan from a local lending agency such as Community Futures. Community Futures has indicated a willingness to offer loans at an annual interest rate of 5- 7% if the Network can provide a solid business case that it is able to re-pay the loan in an acceptable time period.
- **Investments** – If the Network creates a for-profit subsidiary, it could issue shares to impact investors as a way to raise capital.
- **Private donations** – The Network could set itself up for donations by adding a donate now button to is website (or pre-launch website) and provide tax receipts if it is able to obtain charitable status. Canadahelps.org is one of the primary platforms through which non-profits solicit small donations on an ongoing basis.

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[13] http://www.agr.gc.ca/eng/programs-and-services/?id=1362151577626
[14] http://iafbc.ca/funding-opportunities/

- **Crowdfunding** – The use of crowdfunding platforms has been successful in raising $25,000 - $50,000 from the local crowd for a variety of local food projects. Two crowdfunding platforms headquartered in British Columbia could be ideal for this purpose:
    - **InvestlocalBC.com** – This platform, established by Community Futures in Stuart Nechako, is for local nonprofits, the arts communities and business startups to create online forums to fund, support and evolve their initiatives and projects.
    - **Wayblaze.com** – this platform, co-founded in Vancouver by one member of the consultant team, is a community crowdfunding platform, that exclusively supports non-profit organizations and small businesses who want to raise money for projects that improve local communities. Their largest category is local food projects and they have raised money for farmers, food processors, and food education groups in BC.

One Possible funding scenario

As noted above, the Network likely needs about $140,000 in start-up funds plus another $150,000 in working capital to reach financial breakeven. Below we present one possible funding scenario that could be used to attract the funds and provide a $40,000 contingency.

Funding for staff for one year from NDIT	$60,000
Funding from the BC Ministry of Agriculture	$60,000
Funding from the BC Rural Dividend	$80,000
Patient capital loan repaid from cash flows with interest	$50,000
Grants from a range of foundations interested in local food	$30,000
Net proceeds from a rewards based crowdfunding campaign	$10,000
	Total $290,000

This breakdown shows that with some creativity, it should be feasible to raise the required funds.

8.0 Implementation Plan and Risk Analysis

8.1 High Level Implementation Plan

To achieve a successful launch, the Network should follow these implementation steps:

1. **Establish pre-launch Steering Committee** – This committee, will be made up of a diverse group of key key players and provide an overall governance structure until the Society is incorporated and a Board of Directors is established. A preliminary set of Terms of Reference for the Steering Committee are provided in Appendix H.
2. **Create partnership agreements with businesses, groups, organizations across the region** – To maximize the impact of the Network it will be important to reach out to groups or enterprises with a similar agenda in the region and establish partnership or collaboration agreements.
3. **Finalize the initial scope for the Network** – The Steering Committee will finalize the initial scope of services and key metrics for the Network and update the financial projections. While an initial scope of services is presented, it will be up to the Steering Committee to make a final decision on which services it ultimately wants to launch with.
4. **Seeking funding commitments** – A fundraising subcommittee will work to raise an initial tranche of funding for the Network. It will probably need commitments of about $60,000 (including in-kind contributions) before it can justify moving forward. The funds would only be advanced after the non-profit Agri-Food Network Society has been established.
5. **Make final go/no go decision on the Network** – Based on the outcomes of the previous three work steps, the Steering Committee will make a final decision on whether or not to go forward and set up the Network. If the decision is no, then this will be the last step. If it is a yes, then it will carry on with the remaining implementation steps.
6. **Set up the Board of Directors** – An initial set of Directors will be appointed or elected. The Directors will sign the application for incorporation.
7. **Select society name and submit name request** – The Directors will finalize the name for the Society and then submit a request for the name to be approved by the BC government. It generally takes 2 -3 weeks for a name search to be processed.
8. **Establish Purposes of the Society and set up Bylaws** – The Directors will work to establish the purposes of the Society in BC under one or more of 15 allowed categories[15] and set up the Bylaws. It can adopt the BC Model Bylaws or create its own Bylaws[16].

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[15] https://www2.gov.bc.ca/gov/content/employment-business/business/not-for-profit-organizations/societies/incorporate-society/about-society-purposes
[16] https://www2.gov.bc.ca/gov/content/employment-business/business/not-for-profit-organizations/societies/incorporate-society/bylaws

9. **Incorporate the Network as a non-profit society** – The Directors will submit the application for incorporation. Two types of non-profit societies are recognized in BC (Ordinary Societies and Member-funding Societies). The Network will most likely be set up as an Ordinary Society.
10. **Establish bank account and deposit initial funds** – Once the application is approved, the Society should set up a bank and deposit the initial funds from the pledged contributors from Step 4.
11. **Hire an executive director** – Now the Society is properly set up and has initial funding in place, it can now move forward on operational implementation aspects. The first of these is to hire an Executive Director. Once hired, the Executive Director can then help implement all of the steps that follow.
12. **Finalize a location** – The Directors and the Executive Director will finalize an initial location for the executive director and packing orders.
13. **Set up initial website and social media accounts** – A website designer should be hired to build an initial website for the Network and to set up email accounts and social media accounts for Facebook, Instagram and YouTube.
14. **Conduct initial outreach to all users and key players** – A soon as the previous work-step is complete, it will be important to share the website and social media accounts with all users and key players and begin to build up its email lists and social media followers.
15. **Set up initial set of services** – The Society should go through each of its initial set of services and ensure that it has the contractors, equipment, supplies and/or facilities lined up to successfully offer them.
16. **Conduct initial customer outreach** – The Society will reach out to potential producers and processors, especially those that have expressed interest in using services for which the Network can generate fees and invite them to sign up for those services.
17. **Conduct initial buyer outreach** – The Society will reach out to potential buyers of local food products in the region and make them aware of the Network and to try to secure commitments to buy products from producers and processors involved with the Network.
18. **Conduct launch event** – The final step before officially declaring the Network open for business is to conduct a launch event for up to 100 people, including local media to create additional exposure and support for the Network.

8.2 Risk Factors

Limiting Factors and Obstacles

Several factors will limit the successful implementation and growth of the Network, including:

1) **Start-up and operational funding is not secured:** The business strategy for the Network requires some start-up and operational funding to establish a position and a headquarter space.
2) **Cohesive governance and leadership are not achieved:** For the Network to be successful, strong leadership is required to both govern and manage the Network.
3) **Insufficient demand for the Network services:** If anticipated users of the Network don't know about its services and programs, don't see how it can help their businesses, and don't participate in programs, then the Network will not be able to meet financial targets.
4) **The larger food and agriculture economy does not diversify:** If new types of food enterprises are not cultivated in the region, it will be challenging for the Network to deliver value.

Critical Success Factors

The following factors have been identified as critical to the success of the Network:

1) **A financially sustainable model:** A financial model that combines grant funding and revenue generation for the Network is key. Being able to generate enough profit from activities to cover the costs of the Network is an essential element for long-term success. In addition, the Network should have adequate funding reserves to avoid any disruption to service.
2) **An experienced and connected board**: An experienced and well-connected board will help the Network be responsive to change and take advantage of emerging opportunities. Ideally, this Board will have representation from many user groups and be connected to other food & agriculture sector businesses, organizations, & industry associations.
3) **Current needs are met and balanced with growth potential:** The Network must strengthen what is already happening in the region while also looking for creative ways to stimulate activity in new areas where producers and processors in the region could have a competitive advantage.
4) **Strong local support:** The Network should be known to and appreciated by residents, businesses, and visitors in the Region.
5) **Effective cost controls**: The Network should establish cost control measures to ensure that operations are running as efficiently as possible.
6) **An experienced Executive Director**: The role of Executive Director is critical to the success of the Network. This person should be a generalist and natural networker that is adept at listening and learning. Interpersonal skills and the ability to engage and work with people from a range of professional, gender, age, and ethnic backgrounds will be essential.

Appendices

Appendix A: Food Economy Assessment Tables

Here are a range of tables that relate to various aspects of the food economy.

Table A-1 List of Food Processors in the Region

Bakeries and Baked Goods

- Paul's Bakery Ltd
- Rustica Wood Fired Bakery
- Aspen Creek Cookies & Confections
- Bakkerij Lobelle
- Momma Js Homemade

Breweries

- Ursa Minor Brewing
- Bulkley Valley Brewing
- Smithers Brewing Company

Preserves, Jellies and Sauces

- 40 Below Sauce
- Ducky's Jams, Jellies & Preserves

Processed fruits and vegetables

- Cobb Creek Homestead
- Smith Falls Farm
- The Rusty Pitchfork Farm & Garden
- Small Potatoes Farm

Honey

- Blue Mountain Honey
- Bulkley Valley Hive & Honey
- Telkwa Honeybee
- Cloverfields Apiaries
- Sweet Nechako Honey
- Heather Meadows Honey Farm
- Old Iron Farms and Apiary

Meat products

- The Sausage Factory
- Rudolph's Pure Sausage

Other products

- Central Interior Flour
- Kispiox Creations
- Mercedes Beans
- Chicken Creek Coffee
- Chatters Pizzeria

Non Timber Forest Products

- Jean Christian, medicinal herbs
- Red Hen Organic Foods, food and medicinal products.

Table A-2 Commercial kitchens in the RDBN

Name of facility	Location
Grendel Group Disability Non-profit	Smithers
Glenwood Hall	Smithers
Dze L'Kant Friendship Centre	Smithers
Telkwa Community Hall	Telkwa
Round Lake Community Hall	Telkwa
Houston Community Hall	Houston
Decker Lake Community Hall	Near Burns Lake
Fort St. James Community Centre (space rental $75/day)	Fort St. James
Vanderhoof Friendship Centre	Vanderhoof
Manning Canning Kitchens	Vanderhoof
Clucluz Lake Community Hall	Near Vanderhoof
Francois Lake Hall	Francois Lake
Burns Lake Band	Burns Lake
Tweedsmuir Rod and Gun Club	Burns Lake
Island Gospel Church	Burns Lake

Recently closed abattoirs

- Northwest Premium Meat Co-op was established in 2012 in Telkwa as a Class A abattoir with cut and wrap but closed in 2015 as it could not generate a profit.
- Mountaineer Meats, a Class C red meat abattoir in Grassy Plain burned down in 2018.
- Newsat Farm, a Class A, poultry and rabbit abattoir in Vanderhoof recently retired.

Table A-3 Business in the region that process meat

Name of Business	Location	Type of services
The Sausage Factory	Smithers	Custom cutting services for fish, game, beef, lamb and pork. They also make jerky, deli meats, sausages and smoked products, but just for their own retail store.
DLM Meats	Houston	Custom cut & wrap for domestic and wild game (inspected and non-inspected). They also offer cold storage hanging. They also make jerky, deli meats, sausages and smoked products, but just for their own retail store and at farmers' markets.
Rudolph's Pure Sausage	Telkwa	They make jerky, deli meats, sausages and smoked products, but just for their own retail store or wholesale. They also sell cuts of meat.
The Butcher on Raceway	Smithers	Custom cutting services for meat.
W Diamond Ranch		

Table A-4 Breakdown of places where BC residents are likely to buy their food

Retail Channels	BC Revenues 2018 ($B)	Share of market
Supermarkets and other grocery stores	$12.5	87%
Convenience stores	$0.7	5%
Specialty food stores	$1.2	8%
TOTAL	$14.4	100%

Source: Stats Canada

Table A-5 Food Service Channels

Food Service Channels	BC Revenues 2018 ($B)	Share of market
Full-service restaurants	$6.4	50%
Limited-service eating places	$4.8	37%
Special food services	$1.0	8%
Drinking places (alcoholic beverages)	$0.7	5%
TOTAL	$12.9	100%

Source: Stats Canada

Examples of major grocery retailers in RDBN

- Jerry's No Frills, Smithers
- Buy-Low Foods, Houston
- Four Rivers Co-operative Association, Vanderhoof & Houston
- Bulkley Valley Wholesale (Overwaitea), Smithers
- Jim's Your Independent Grocer, Vanderhoof
- Save-On Foods, Burns Lake and Fort St. James
- Real Canadian Wholesale Club, Burns Lake
- Safeway, Smithers
- Your Grocery Store and More, Fraser Lake

Examples of independent grocery retailers in RDBN

- Canada's Grocery Store and More, Fraser Lake
- Grassy Plains Store / Mountaineer Meats, Grassy Plains
- Green Zone Grocer / Boer Mountain Café, Burns Lake
- Smithers Sausage Factory, Smithers
- Ventin's Vitamin House, Vanderhoof
- Nature's Pantry and Out of Hand, Smithers
- Tyhee Market, Telkwa

Table A-6 RDBN food producers that sell in RDBN retail stores

Name of Producer	Location	In chain store	In independent store
High Slopes Acres (produce)	Telkwa	Yes	Yes
Small Potatoes Farm (mixed)	Smithers	Yes	
Healthy Hugs Organic Farm	Smithers	Yes	Yes
Chalet of Solace Herb Farm	Ootsa Lake		Yes
Quick Veggies	Telkwa		Yes
Dunnloggin Ranch	Smithers		Yes
Living Roots Family Farm	Smithers		Yes
Paul's Bakery	Smithers	Yes	
Rustica Wood Fire Bakery	Smithers	Yes	
Mercedes Beans & Model Teas	Hazelton	Yes	
Chicken Creek Coffee	Smithers	Yes	

Blue Mountain Honey	Vanderhoof	Yes	Yes
Telkwa Honey Bee	Telkwa		Yes
Sweet Nechako Honey	Fort Fraser		Yes
Bulkley Valley Hive & Honey	Telkwa		Yes
W Diamond Ranch	Telkwa		Yes
Sunrider Ranch	Francois Lake		Yes
Thompson Creek Beef	Houston/Telkwa		Yes
Copper T Ranch	Fraser Lake		Yes
Robin Creek Dairy and Farm	Telkwa		Yes
Happy Pig Organic Farm	Telkwa		Yes
Deer Ridge Farm	Telkwa		Yes
Chatters Pizza	Smithers	Yes	Yes

Table A-7 Farmers' Markets in the Region

Name of Market	No. of Vendors	Operating Day, Season and Hours	Online Store?	2020 Status
Vanderhoof Farmers' Market	25 to 50	Thursdays, Jun – Sep, 10 AM – 2 PM	Yes	Opened June 11
Fort St. James Farmers' Market	5 to 25	Fridays, May – Sep, 11:30 AM – 4 PM	No	Closed for 2020
Fraser Lake Market	5 to 25	Fridays, Jun – Sep, 12 PM – 4 PM	No	Opening delayed to July 17
Houston BC Farmers' Market	5 to 25	Thursdays, Jun – Sep, 3 PM – 7 PM	No	Opened June 5
Burns Lake Community Market	5 to 25	Fridays, Jul – Aug, 9 AM – 2 PM	No	Opened July 3
Bulkley Valley Farmers' Market (Smithers)	25 to 50	Saturdays, Year Round 8:30 AM – 12:30 PM	Yes	Open
Southside Farmers' Market	5 to 25	Saturdays, May – Sep, 10AM – 2 PM	No	Unknown

Restaurants that highlight they use local ingredients

- Trackside Catina, Smithers
- Two Sisters Restaurant, Smithers
- Roadhouse Restaurant, Smithers

- Rustica Bakery, Smithers
- Alternative Grounds Coffee & Tea House, Burns Lake
- Copperside Foods, Smithers
- Alpenhorn Bistro and Bar, Smithers
- Tasty Tandoori, Vanderhoof

Hospitals and care home facilities in the region

- Bulkley Valley District Hospital, Smithers – they provide a room service menu. They have no cooks on site and therefore buy premade product and heat it at the facility.
- Lakes District Hospital and Health Centre, Burns Lake.
- St. John Hospital, Vanderhoof.
- Stuart Lake Hospital , Fort St. James.
- Bulkley Lodge, Smithers (70 residents).
- Houston Health Care Centre (6 beds) – provide room service menu.
- Stuart Nechako Manor, Vanderhoof (106 beds).
- The Pines, Burns Lake (72 beds).
- Cottonwood Manor, Houston (5 beds).
- Pioneer Lodge, Fort St. James.
- Riverside Place, Vanderhoof (32 beds).
- The Meadows, Smithers (16 residents).
- Tweedsmuir House, Burns Lake (17 beds).

Education facilities in the region

- Coast Mountain College
- College of Registered Nurses
- College of New Caledonia
- Several high schools and elementary schools

Table A-8 Food and agriculture associations and advocacy groups

Nechako Valley Food Network	Mission of NVFN: 1. to promote the growth and distribution of local agricultural products in the Nechako Valley 2. to educate and aid individuals to grow and eat their own produce in an environmentally sound way.
	https://www.facebook.com/pg/nvfoodnetwork
Farm to School BC	Farm to School brings healthy, local and sustainable food into schools and provides students with hands-on learning opportunities that develop food literacy, all while strengthening the local food system and enhancing school and community connectedness.
	https://farmtoschoolbc.ca

<table>
<tr><td rowspan="2">Northwest BC Food Action Network</td><td>Is now part of: Making Agriculture Sustainable in the Hazeltons. MASH is a registered non-profit society operating mainly in the Hazeltons, with tentacles reaching west to Gitanyow and east to Telkwa. Food security with a focus on community economic development that includes a healthy dose of performing arts is our passion. Capacity-building, networking and delivering fun, safe events are what we do.</td></tr>
<tr><td>https://www.nwfoodsecure.org
https://mashazeltons.org</td></tr>
<tr><td rowspan="2">Smithers Farmers’ Institute</td><td>The Smithers Farmers' Institute was incorporated under the BC Farmers and Womens Institute Act in 1922, but was formed prior to that in 1909. The objectives of the Smithers Farmers' Institute are:
to improve conditions of rural life, so that settlement may be permanent and prosperous;
to promote the theory and practice of agriculture by lectures, essays, the circulation of information and other educational methods, and to stimulate interest by exhibitions, prizes and other means;
to arrange on behalf of its members for the purchase, distribution, or sale of commodities, supplies, or products and generally to act on their behalf in all matters incidental to agricultural pursuits; and
to promote social intercourse, mutual helpfulness, and the diffusion of knowledge and to make new settlers welcome.
The Smithers FI has been actively working towards these objectives, although in recent years the local feed and lumber suppliers have gradually taken over the function of bulk purchasing.</td></tr>
<tr><td>http://www.smithersfarmersinstitute.com</td></tr>
<tr><td rowspan="2">Bulkley Valley and Vanderhoof 4-H Clubs</td><td>4-H British Columbia inspires and educates, builds awareness of agriculture and food production, and develops skills to help youth reach their full potential.</td></tr>
<tr><td>https://www.4hbc.ca/clubs/yellowhead-west</td></tr>
<tr><td rowspan="2">Young Agrarians</td><td>Young Agrarians (YA) is a farmer to farmer educational resource network for new and young ecological, organic and regenerative farmers in Canada. We recognize the Indigenous lands and territories that we work on and alongside, and are committed to providing programs and services that are inclusive and available to farmers and friends of diverse backgrounds. Since 2012, our network is volunteer-driven, with farmers across the country organizing on-farm events and building community to create spaces for knowledge sharing and growth.</td></tr>
<tr><td>https://youngagrarians.org</td></tr>
</table>

Love Northern BC -	Northern Development's shop local program connects people with the independent locally-owned businesses throughout the region. The program delivers unique online marketing campaigns in communities throughout the region that celebrate independent locally-owned businesses with an aim to increase their revenues and keep more dollars in the local community. The program is delivered in partnership and collaboration with communities throughout the Trust's service area.
	https://lovenorthernbc.com

Table A-9: Regional food security programs and initiatives

Project/initiative	**Activities and goals**	**Status**
Beyond the Market: Growing the North (Community Futures)	Aimed to strengthen/diversify agriculture and food enterprise from Valemount to Terrace. Goals include: • Assess the feasibility of a regional food distribution system and value-chain opportunities • Bring producers and purchasers together to network and share information • Implement local food purchasing pilot projects in commercial institutions • Identify potential new markets and value-added ventures	No longer operating
New Farm Development Program	Program of Beyond the Market to promote, attract, train, and support new farmers.	Not started
Business Plan for a Regional Food Hub: A Plan to Build the Capacity of Our Local Food System	Assess the viability and risk of establishing infrastructure required to connect producers and buyers in the region.	Not started
Connecting Consumers and Producers	Directory of producers in the region that sell their food direct to consumers.	Ongoing
Love Northern BC	Directory of businesses across Northern BC	Ongoing
Nechako Valley Food Network	Not for profit to promote the growth and distribution of local agricultural products in the Nechako Valley and to educate and help individuals grow and eat their own produce in an environmentally sound way. They produce the Nechako Valley Food Producers Directory.	Ongoing

Ground Breakers Agricultural Association	Non-profit charitable organization focused on local food and gardening education for elementary school children.	Ongoing
Young Agrarians	Land matching	

Beef, widely produced in the region, can be between 10% to 76% more expensive than meat produced and processed outside of the region by large producers.

Table A-10 Price difference between local food and imported food at grocery stores

Meat Type	BV Wholesale Prices (out of region meat)	Best Beef in BC Prices (Vanderhoof online store)	6S Family Farm Prices (Houston online store)
T-Bone Steak	$14.97/lb	$16.49/lb(+10%)	$18.00/lb(+20%)
Ground Beef	$4.84/lb	$6.72/lb(+39%)	$8.50/lb(+76%)
Sirloin Tip Roast	$8.97/lb	$11.59/lb(+30%)	$10.00/lb(+11%)

Appendix B: Local Food Economy Studies from Other Jurisdictions

Several regions across North America have studied their local food economy and its impact on the community (e.g. jobs, welfare, and nutrition). Below we provide an overview of some of those studies, the impact of an improved local food economy and their recommendations. It should be noted that the populations of Edmonton and Michigan are much larger than Bulkley Nechako, and may not reflect what could happen in the region. However, all the studies show an increase in local purchasing has a multiplier impact on the economy and jobs.

Study 1: Transition Town Peterborough: 25% Shift of Local Food in Peterborough (2014)

Peterborough, in 2014, had a population of 82,000 people. The study identified the economic impact, in terms of community wealth creation, that can be achieved by a shift of 25% of local food expenditures from 5% to 30% in a 10-year time frame. The study estimated this would result in a shift from $23m (5%) spent on local food to $296m (30%). The study used economic multipliers ranging from 37% to 66%, resulting in an estimated economic impact of between $406m to $491m. Key community impacts included:

- More jobs
- More youth staying in the city
- Improved health

The study provided no recommendations on how to increase local food purchasing.

Study 2: The Local Food Economy: Opportunities for Edmonton (2012)

Edmonton, in 2012, had a population of ~875,000 people. The study provided an overview of the local food sector, its potential growth, key local food issues and recommended opportunities to support local food businesses. It identified that local residents spent $784m (26%) on local food. They used economic multipliers of between 1.31 to 2.49 resulting in an estimated economic impact of between $1.02 - $1.95 billion. The study did not identify community impacts but made the following recommendations on how to increase local food purchasing:

- A multi-day, permanent farmers market
- A local food hub
- Expand local food among conventional food retailers
- Institutional purchasing of local food
- A small-scale food processing facility
- Winter greenhouses

Study 3: The Economic Benefits of Food Localization for Michigan and the Capital Required to Realize Them (2013)

Michigan, in 2013, had a population of 9.9 million people. This very comprehensive study evaluated the economic impacts the state of Michigan would enjoy through a 20% shift toward local food. The study identified that the food sector provided 524,520 jobs, was worth $33 billion, of which $12.5 billion (38%) was from local food production. The study used economic multipliers between 2 and 4. With a 20% shift toward local food it estimated that this would result in:

- 42,500 new jobs
- $1.5 billion in new annual wages
- $2.9 billion in additional value-added products
- $255 million in new, annual state and local tax revenues

The study compiled a very comprehensive list of recommendations on how to achieve this:

- Invest $3 billion of new capital in local food infrastructure
- Identify new sources of investment (co-ops, crowdfunding, retirement investments)
- Identify food categories for increased production e.g. greenhouses
- Fill local food sector gaps e.g. wet corn milling and chocolate manufacturing
- Better educate about the health, environmental, and economic benefits of local food
- Deploy public lands for local food production
- Improve local food aggregation services (products aggregated to fill customer orders)
- Overhaul public procurement practices to favour local purchasing
- Improve workforce development programs
- Develop new models of farming (e.g SPIN farming -Small Plot INtensive farming)
- Review public policies, laws, and subsidies

The study identified the following community benefits:

- Increased employment
- Stronger community economies
- Ecological sustainability
- Better nutrition and health
- More civic engagement

Appendix C: Full detail on interview findings

We interviewed 36 people with specific knowledge about the local food economy in the region to better understand the current situation and their views on how to improve it. A list of the interviewees is presented in Appendix B. The key findings from these interviews, which were conducted during 2020, are presented below.

General feedback on the regional food economy

Interest in local food is growing in the region. Many interviewees noted that food security in the north is an important issue and that growing your own food has jumped in popularity over the past few years, especially in 2020 as a response to COVID. Every year, more and more customers want to know where their food comes from, especially produce and protein. The downturn in the forestry sector has created the need for people to find alternative employment and many have taken up farming to generate income.

Outside of farmers' markets and farmgate sales, it is hard to buy local food. Producers believe many people would like to go to their local grocery store to buy local meats, veggies, and other products. Also, several producers interviewed indicated they would like to be able to drop off their products at one place near them for distribution, giving them more time to focus on what they love to do: produce more food. Unfortunately, local retailers carry only a few local products and only one distributor in the RDBN focuses on local food products (Bulkley Valley Wholesale in Smithers).

Marketing and distribution channels outside the region are needed. Some respondents felt that opportunities exist to sell local food locally within the region, but that it is likely not sufficient to significantly grow the local food economy. They felt that RDBN should also identify ways to distribute products out of the region and possibly out of the province.

What works in southern BC doesn't necessarily work for northern regions. Many interviewees noted the need to adopt local food strategies that recognize the unique characteristics of northern regions compared with southern regions. Further, many respondents noted that even within the RDBN there are significant differences and unique attributes between communities.

Many producers view government regulations as a key barrier to local food expansion. Government regulations at the local, regional and provincial levels are viewed as barriers to local food expansion. Interviewees recommend new regulations to allow mobile abattoirs, relax rules about requiring frozen food to be transported in freezers when outdoor temperatures are 20 degrees below zero, greater flexibility on which local products can be sold at farmers' markets, and relaxing restrictions on farmgate sales and home garden sales.

There is a strong farmers' market sector, but it has challenges. Even with a small population, the region has 7 farmers' markets. Some markets operate on a weekly basis even with just a handful of vendors. The markets are also seen as a vital resource to the community as they provide a gathering space and some participate in the BC Farmers' Market coupon program for low income families. However, the markets face challenges specific to their region including a lack of vendors because of the distance they have to travel, limited supply of produce during the shoulder season as growing season is short in the region and the unfortunate issue of not having enough customers to attract enough vendors.

Freshwater fisheries could be a bigger part of the food economy. The freshwater fishery in the RDBN and surrounding regions has been part of the food and tourism economy for decades. For example, the commercial fishery in the Babine Lake area harvests over 5 million lbs of fish annually. However, interviewees noted that with little value-added processing facilities for freshwater fish like sockeye, the region is missing out on this potential revenue and job-creation stream.

General feedback on food hub(s) in the RDBN

Most participants were in favour of a local food hub network. While interviewees had some questions and concerns about how a local food hub network would work, they generally liked the idea of all members of the local food economy working together to share equipment, facilities and distribution networks to reduce their costs and similarly working together to jointly market their products. They also liked the idea having two food processing facilities, one in or near Smithers and the other in or near Vanderhoof. However, they cautioned that because these two areas have different types of producers (and different types of consumers) that the two facilities may focus on different products and offer different facilities and services.

Parties are already working to develop food hub services in the region. A group in Vanderhoof, led by Springhill Bison Company, is looking at turning an old gas station (owned by the city) into a year-round indoor and outdoor market with an inspected kitchen, washing and prep area for produce and storage. Out of Hand retail store in Smithers is looking for sites to build a commercial kitchen. An entrepreneur in Prince George, Levi Davis, has been researching the potential to operate a local food distribution business in the region.

Food hub related services and facilities already exist in the RDBN. Some interviewees highlighted that there are several services and facilities in the region that already perform the services of a food hub. These included:

- BV Wholesale distributes food, including local food, to retailers, food services, institutions, and mining camps (via Bandstra Transport).
- Out of Hand retail store sells products only sourced from the region.

Distance is a key barrier in the region. Respondents noted the long driving distances for producers to get to processing facilities and wholesalers/retailers is a challenge. A food hub network would need to help cut down on driving times. One interviewee proposed the idea of having a mobile processing facility (housed in a 53 x 8 foot trailer), which could potentially improve access to processing equipment and reduce the cost of processing. It was suggested that the facility could have a small retail area for direct sales (tailgate sales as opposed to farmgate sales).

Participants had difficulty envisioning how a regional food hub network could work. They felt that it could be the right idea but had trouble seeing how it could be successful. As a result, they felt that it would be better for the initiative to start small, build on successes, and grow gradually towards the full vision of a connected and mutually supportive network of assets. It is important to demonstrate a successful proof of concept at each state to get participants to buy in and begin working together.

If you build it, they won't necessarily come. Many respondents cautioned that before you introduce a new local food service or initiative, you first need to make sure customers are willing to use it and pay for it. For example, a meat co-op was launched in Telkwa but failed a few years later. One interviewee suggested it failed because it didn't have a retail presence. Another interviewee suggested that direct to consumer channels should be the focus because the economics are better for producers and the prices can be lower for consumers.

A food hub network in the RDBN should start with the produce sector. Respondents noted that a produce-focused food hub could be more feasible in early stages as it is easier to plant new crops and become certified for processing than it is to increase production in meat animals, which needs at least two-years of lead time. For meat processing, reclassifying the D and E abattoir facilities to A and B for beef could also be an alternative approach and is part of an active conversation with the Ministry of Agriculture.

Engage grocery chains as shareholders in the food hub. One respondent suggested that large buyers, like grocery chains, should be encouraged to become shareholders in the food hub. This presents a potential win-win for producers and retailers. If regional producers can provide high quality products, then it would benefit the food retailers to market this quality.

A better understanding of who would own and operate the food hub is needed. To better understand food hub governance, participants indicated they need to better understand different governance models and the pros and cons for each. Many respondents asked, *"How would the food hub work? Who would own it? Who would manage it? Who would pay for what? Who would manage risk? And who takes on profit and losses?"*

Online sales platforms already exist in the RDBN. Multiple on-line platforms (Farmers market online, Out of Hand) currently sell local products, so participants felt that launching a new one as part of the hub could cause confusion. However, as noted by participants, existing platforms are not working to full capacity and require improvements to be effective. One participant thought that maybe the individual platforms and the food hub platforms could agree to work together. They could continue to list their own products but also list on the food hub website. This would ensure that all the products from all the local producers would be available on the food hub site, which the retail, wholesale and restaurant buyers we spoke with said would make it much easier for them to use.

Collaborating with post-secondary institutions and trusts would be beneficial. Several interviewees suggested involving post-secondary institutions such as College of New Caledonia and Trusts, such as Northern Development Initiatives Trust in the food hub development would be a positive direction.

Finding investment for a food hub would likely be hard. Interviewees felt that a food hub would need significant investment and this might be hard to find. Interviewees were reluctant to rely on government funding but to seek out private investors to maintain independence.

Immigrant investors could be a source of funding for food hubs. One interviewee suggested that the region could invite immigrant investors to provide seed funding for a food hub or other local enterprise through investor programs.

Participants identified existing strategies for expanding local food sales. Participants identified ways to grow the regional food economy that are working now or could be enhanced by a food hub. For example, local meat sales through small-scale grocers have been successful, with customers paying a premium for RDBN products, even when other products that are less costly are available. Other interviewees highlighted farm gate sales and farmer's market's as being effective existing sales channels for local foods.

Finding better ways to market local food is key. Several interviewees highlighted the importance of developing more effective ways to market local food.

An 'eat local' marketing campaign would enhance a food hub initiative. A public education campaign on the benefits of eating local would help increase food hub sales. The campaign could target new demographics (inclusive of gender, age, ethnicity) and raise awareness about the merits of eating local (e.g. smaller ecological footprint, increase in self-reliance, and community enrichment). In particular, it could help promote the higher quality of local meat and produce. The campaign could include printing shelf tags to indicate which local products are available in retail stores.

Some existing facilities could be suitable for a food hub. Specific locations were tentatively identified as possible physical locations for a food hub. These include:

- The community hall in Telkwa, which has a commercial kitchen
- The old Dairyland building in Smithers opposite BV Wholesale.
- A 2,000 sf building and fenced yard next to Jim's Independent Grocer in Vanderhoof
- The airport hangar at Fraser Lake
- One of the buildings along the highway at Fraser Lake

One interviewee noted that Fraser Lake would likely be keen to host a food hub and has the benefit of having a good number of ex-foresters, who have a good understanding of production systems.

Feedback related to food producers and processors

Producers are (fiercely) independent. Many producers have a built-in instinct for, pride in, and ethic of self-reliance and independence. A large number of them have also built up their own customer base, which they are protective of. A successful food hub initiative would need to convince farmers and ranchers that working together will help improve the economics of their business. Some producers said they are not interested in aggregating product, but are interested in being able to process their own products using shared facilities.

Most local food is sold through direct-to-consumer channels. All producers we interviewed market and distribute their products through their own direct channels (farm gate, farmer's markets, their own website). Most producers do just-in-time harvesting to distribute directly to customers through box delivery programs or at farmers' markets. Some respondents said they would like to sell all year round, which would require an investment in cold storage. Many producers take orders over the phone or online. In general, regional producers sell very little to restaurants and to retailers and near zero to institutional buyers.

Small producers feel that they cannot afford food hub services. With rising costs for farm equipment, supplies and labour, as well as intensification in climate variability, combined with small margins in fresh foods, many respondents are skeptical of how a hub could improve the economics of their businesses. However, if the hub could help them find significant new buyers and take care of all the distribution and invoice logistics, participants felt that they may be convinced.

Existing kitchen spaces are insufficient for producer needs. As noted by producers and processors who have been searching for suitable processing spaces, existing facilities are too small, too expensive, or too irregular in terms of hours. Accessible, affordable, certified kitchen space including cold storage and basic processing is needed. One interviewee provided an example of how even a small processing unit can be viable with a light processing activity. The Lillooet First Nation is using a small unit to dehydrate apples into apple chips, which it is successfully selling in the local grocery store. Another food processor stated that the lack of a commercial kitchen facility is preventing her from expanding and selling in grocery stores and going full time.

Meat slaughtering and butchering enterprises face significant labour constraints. Even though the region has sufficient slaughtering and butchering capacity, the work is difficult and largely seasonal, making it a constant struggle to find and employ skilled labourers. This in turn, limits the year-round capacity of these essential service businesses. For many years, the idea of raising animals at different times (so that they can be processed without the current bottlenecks) has been discussed, but requires strong facilitation and communication.

Finishing sites for cattle are in short supply. Beef cows are typically sent to a feedlot as a final stage to increase their weight before slaughter. However, interviewees report that a shortage of these finishing sites exists so the animals are shipped outside the region for finishing. This shortage exists because you need black soil to produce high quality grain and the region doesn't have much of it. Therefore, the grain has to be imported at higher prices. One interviewee said it is possible to finish beef cows on grass but it takes an extra year before they are ready for slaughter. Further, grass-fattened beef cows are ready for slaughter in August (a busy time for slaughter facilities) while grain-fattened beef cows are slaughtered in May (a less busy time).

An opportunity exists to raise beef and sheep on the same land. One interviewee indicated that beef and sheep complement each other well so if a rancher has 100 head of cattle, another 100 head of sheep can be grazed on the same land without reducing the stocking rate. Given that demand currently exceeds supply for lamb/sheep, production could be increased significantly with this combination ranching method.

Prices charged for regional beef, produce, eggs and honey vary widely. Respondents indicated that some farms occasionally sell products at prices that are below what most producers need to make a profit, which has negative impacts on the other producers that market the same products.

Hay drying invention shows how producer collaboration can expand local food production. One interviewee shared an inspiring case example of a group of forage producers in Vanderhoof who worked together to develop a hay bale drier that reduces the moisture content of hay bales from 25% to 12% in 15 minutes. This is very important in Northern BC where the harvest season is limited and seasonal weather can be adverse at harvest time. As a result of their successful collaboration, they created Agri Green Enterprises and now manufacturer the drier and sell it around the world. Although this is perceived positive economic activity, it is also perceived to be contributing to a lack of affordable access to hay for regional producers.

Research successful models of food processing in other BC regulations. Interviewees highlighted the newly established Sprout Kitchen[17] in Quesnel as a model to potentially copy in the Bulkley Nechako Region. It is a small-scale food processing hub and incubator that helps existing and new food entrepreneurs get their ideas off the ground.

Food producers must complete many steps to get listed in retail stores. Local food producers are expected to contact grocery stores to be listed. Then they must pass the grocery store's, sometimes strict, criteria (e.g. government inspected facilities, pack sizes). Once they are listed, the food producer must deliver their products direct to the retail stores. Interviewees liked the idea that food producers could avoid many of these steps if they were part of a food hub.

There are good opportunities to be listed in local retail stores. Several local retail stores (e.g. BV Wholesale and Canada's Grocery Store and More) sell regional foods and are keen to buy more. They are also not specific to what type of food it needs to be, just if it is local. The opportunity is significant for local producers because retail stores sell more food than other channels, especially if the food producer is listed in a larger retailer like BV Wholesale.

Feedback related to food buyers

Regional food is very popular and more retailers are offering it. Most retailers that offer food from the region stated that customers expect it for certain products (e.g. beef and honey). In some cases it is hard to keep up with demand and customers are happy to pay a

[17] https://www.sproutkitchen.ca

premium. Some retailers went to considerable lengths to source regional food such as picking up Haida Gwaii carrots dropped off at a local gas station, travelling for hours to pick up food direct from producers and buying from multiple producers of the same food item to get enough supply (e.g. eggs). In some cases, retailers sold both regionally produced foods and out of region foods, even though they compete with each other and the regional foods tended to be more expensive. All retailers that sell regional products were very interested in being connected with new regional producers.

Buyers liked the idea of ordering a wide range of local products from a single website and have it delivered. All types of buyers, including retailers, wholesale buyers, institutional buyers, restaurants and even consumers had a favourable reaction to the idea of being able to go to one region-wide website and order all their local products, provided that they could get them delivered or could pick them up at a nearby location. One interviewee mentioned that because local food retailers are used to buying through a few distributors, potatoes grown in Hazelton are shipped to a distributor in Vancouver and then shipped back to stores in the RDBN. A couple of interviewees felt that knowing that every product on the site was local would cause them to buy more local products than they otherwise would.

Buyers face challenges buying local meat because they only need selected cuts. Meat producers generally want to sell whole animals but buyers typically only want to buy selected cuts because there is only so much sausage and hamburger meat that they can sell.

Some grocery store chains do not make purchasing decisions at the store level. The large grocery store chains typical make buying decision at their head office, which makes it difficult to local producers to get listed on their store shelves.

Pipeline and mining camps could be potential food hub buyers. Several resource camps are located in or near to the RDBN and respondents felt that they could be key buyers for regional products and that a food hub could help facilitate sales to this market.

Many wholesale food buyers require GAP certification. Some producers perceive this as a lengthy and costly process that significantly limits their ability for access these wholesale markets.

Some food service buyers rely on major distributors. This is because they have used them for years as they provide an excellent service of consistent product at a good price. Food service businesses are therefore less motivated to change their supply chain.

Many barriers to institutional food procurement exist but could be overcome in time. Northern Health Authority has several criteria for food suppliers they buy from. In some cases, these are barriers for local food producers. The criteria are built around health and safety needs, financial requirements, and a lack of resources to prepare food on site. Criteria include frozen vegetables needing to be chopped and diced to specific sizing, dried mash potatoes in large wholesale packs and portion cup sizes for milk. All food must come through their distributor, Sysco, which has distribution centres in Edmonton and Kelowna. Northern Health Authority also work with national Group Purchasing Organizations to source some of their foods, which means only national food businesses can bid on certain contracts. Even for contracts regional producers can bid on growers have to be GAP certified, processors HACCP certified and meat processed in a Federally inspected facility.

Feedback related to First Nations

Food and agriculture are of interest but are perceived to be a small economic opportunity for many First Nation representatives. First Nation food security programs are largely run through the First Nation Health Authority and are not a significant source of revenue or employment. Backyard and community gardening, greenhouses, and traditional harvesting programs are run by the First Nation Food System Project. Many First Nation groups we spoke with view food and agriculture as a way to create healing places, reconnect to land and culture, and provide meaningful employment for members.

First Nations have a number of food assets. A number of First Nations communities have established significant community gardens and greenhouses. For example, the Nak'azdli Whut'en in Fort St. James has a 20' x 15' commercial greenhouse with refrigerated and frozen storage capacity. While the priority of these food assets is to improve health, social connectedness, and food security/sovereignty for Indigenous peoples in the region, to the extent that First Nation indicate that excess capacity exists, particularly in the case of greenhouses, these facilities could also be used to grow food for the broader community and create employment for First Nation members. One respondent indicated that the Ministry of Agriculture and Agrifoods Canada have funding available to conduct First Nations agriculture opportunity assessments for commercial scale systems, which then can be used to obtain bank financing. Provincially, there is also the potential of accessing the BC Indigenous Agriculture Development Program.

A number of First Nations seek greater control over wild mushroom harvesting. The growing number of wild mushroom pickers coming from outside the region has created significant problems in the form of a lack of licensing and/or land access permissions, destruction of the ecology of the area, and large amounts of waste being left behind. Most mushrooms are shipped fresh to a wild food distributor in the lower-mainland that distributes mostly to restaurants and high-end food service providers. Centralized buying could reduce illegal harvesting. Drying wild mushrooms adds value to the product and is a low cost, low tech process. The importance of ecological and ethical harvesting protocols was emphasized.

Although many non-timber forest product (NTFP) opportunities exist, much of the Indigenous knowledge has disappeared and/or has gone underground. Several respondents indicated interest in reviving Indigenous knowledge and governance of traditional harvesting. One interviewee noted the need to address the conflicts between crown land and traditional territory. Respondents felt encouraged that people are learning to respect Indigenous knowledge and history as well as recognize European ideas and values as one dimension to the food and agriculture story in the area. Another topic raised was concern around the pesticide use by forestry companies that could compromise NTFP potential.

Feedback on potential food hub products and services

Participants identified a range of products to sell through the Hub. In addition to traditional RDBN products such as beef and hay, producers identified the following products as having good potential:

- Wild and cultivated berries (e.g. huckleberry, haskap, black currants)
- Fresh and processed produce (e.g. frozen veggies, dehydrated fruit)
- Hemp
- CBD oil production and extraction
- Fresh and dried wild mushrooms (jack pine mushrooms were specifically mentioned)
- Balsam bark harvesting for medicinal use
- Value-added processing for freshwater fisheries
- Value-added products from honey (beeswax candles, soap)
- Grass-finished meat production
- Potatoes
- Greenhouse grown tomatoes, squash and cucumbers for year-round production
- Asparagus, which is ideally suited to grow in northern BC
- Expanded small-scale chicken and egg production (to meet growth in demand while staying below marketing board threshold of 200 broilers and 300 turkeys)
- Local crafts that can be sold during the winter, potentially as gifts, to create more stable revenues year round
- Wineries, brewhouses, and distilleries, all of which generate revenues year round.

Producers are interested in a range of food equipment, facilities and services. These include the following:

- **Food related Equipment**
  - Commercial dishwasher
  - Washing, bagging, labeling equipment
  - Canning, freezing, preserving equipment
  - Food processor
  - Dehydration/drying equipment

- **Facilities**
  - Root cellars to store potatoes, carrots, cabbage to sell throughout the year
  - A central place to make direct sales; pick-up drop-off location and warehousing (must have good access to water and ample power)
  - Nutrition label creation station
  - Meeting space
  - "Community processing place where I can wash and package products to GAP standards"
  - Individual food storage lockers
  - Walk-in cooler and/or freezer space

- Indoor market/retail outlet

- **Food-related services**
  - Custom meat processing services (processing meat for own consumption)
  - Shared marketing and brokerage services
  - Distribution service to other areas
  - Collaborative shipping to food labs for nutrient testing
  - Workshops and skill building classes- canning 101, cooking for families, food safe etc.
  - Webinars hosted by a BC food processing association
  - Food box program delivered to peoples' homes

Entrepreneur training and business supports are needed. With new farmers coming on-line and existing producers in expansion mode, business planning and product development supports are needed to accelerate the growth of these businesses. One respondent suggested that hiring a qualified person to visit communities to teach food entrepreneurs different aspects of growing a successful food business would be very beneficial. Community Futures Nadina indicated a willingness to run a food accelerator for food entrepreneurs in the winter.

Interviewees

The project team contacted over 50 food producers, processors, retailers, and non-profit organizations and interviewed 36.

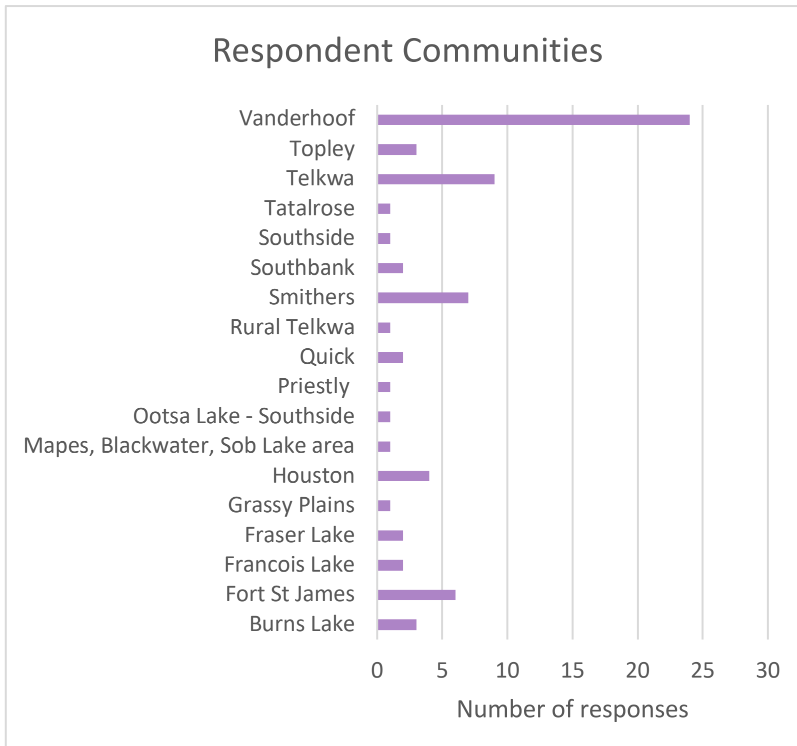
Name of Organization	First Name	Last Name
40 Below Sauce	Elsbeth	Fielding
AgriFirst Canada and FN Food Systems Project	Jammi	Kumar
Bandstra Transportation Systems Ltd.	Rick	Bandstra
BC Association of Haskap Growers	Darren	Shankel
BC Livestock	Decody	Corbiere
BC Ministry of Agriculture	John	Stevenson
BC Ministry of Agriculture	Kristina	Bouris
Borno Farms	Linda	Borno
Bulkley Valley Custom Slaughter	Manfred	Wittwer
Bulkley Valley Wholesale	Mike	Bundock
Canada's Grocery Store and More	Lori	Hurry
Carrier Sekani, Biologist	Brian	Toth
Community Futures Nadina, General Manager	Kim	Martinsen
Community Futures Stuart Nechako, Business Dev Analyst	Tammy	Lyell
Community Futures Stuart Nechako, General Manager	Graham	Stanley
Employment & Education Coordinator, BSDW Health Lead & Mental Wellness	Cindy	Ashe
Fraser Lake Community Market (& Copper T Ranch)	Janice & Trevor	Tapp
Green Zone Grocer / Boer Mountain Café	Shirley	Wiebe
High Slope Acres	Mark	Fisher
Houston BC Farmer's Market	Marian	Ells
Living Roots Family Farm	Rob	Zoller
Nakazdli Development Corporation, CEO	Reg	Mueller
Nechako Food Network & Bioscape Farm	Michelle	Roberge
Northern Health	Stephanie	Finch
Northern Region First Nations Food Systems Project	Janet	Romain
RDBN Ag Committee Chair	Mark	Parker
RDBN Area F Director	Jerry	Petersen
Russell Wiens (Haskap Grower)	Russell	Wiens
Sasuchan Development Corporation, Chief Executive Officer	Tom	Lewis
Sometime Ranch	Clint & Reg	Collingwood
Springhill Bison Company, Drive Thru Coffee Shop	Teresa	Forfar
Takla First Nations, Economic Development Office, CEO	Terry	Lewis
Unity Gardens & Farm + Pres. Smithers Farmers Institute	Megan	D'Arcy
Valley View Farm	John	Shorter
Vanderhoof Community Event Center	Lana	Olson
Village of Burns Lake, Economic Development Officer	Lori	Watson

Appendix D: Full detail on survey findings

At the suggestion of the Food and Agriculture Working Group, the project team developed a survey tool for members to collect information with and distribute through their respective networks. The survey was also promoted through the RDBN database of food and agriculture networks and contacts. The purpose of this survey was to determine the level of interest and readiness in terms of spaces, equipment, and services to launch initial phases of a food hub in 2021 and potentially a regional food hub network. The survey was online from October 15 to November 20, 2020. A total of 72 people responded to the survey.

Demographics of the respondents

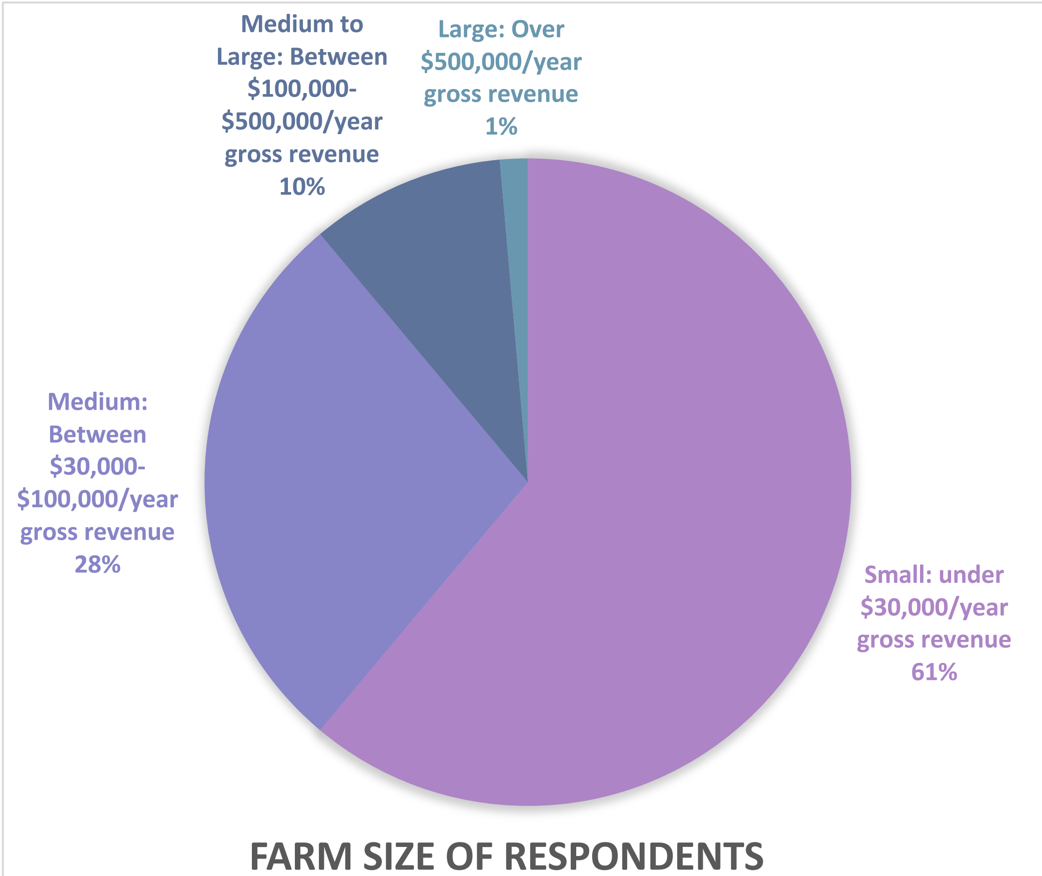
People from across the region participated, although 40% of total responses were from Vanderhoof/Fort St. James.



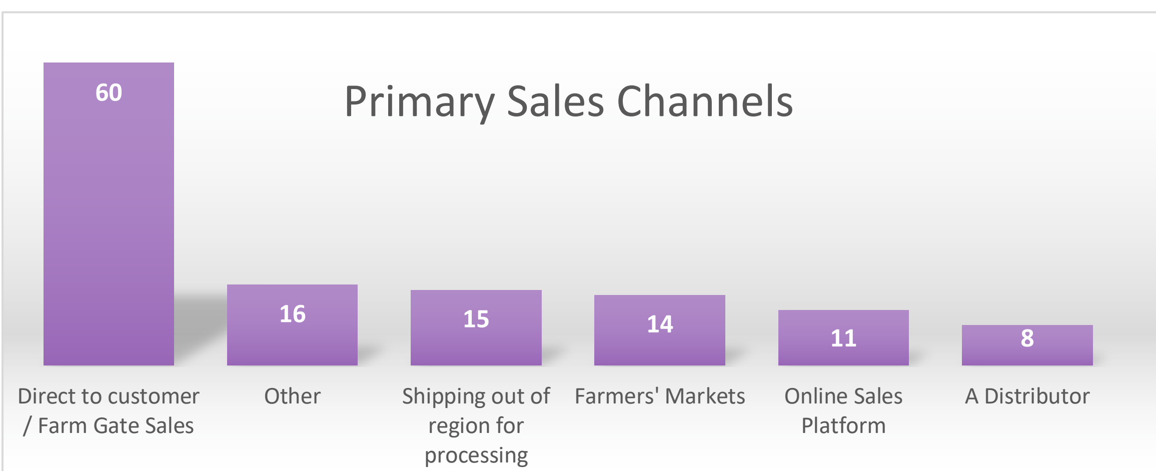
The largest group of respondents are primarily livestock farmers. A range of food producers, raisers, harvesters, and makers responded to the survey. Consistent with census information on farm-type in the RDBN, livestock farmers comprised nearly half (49%) of responses. Fruit and vegetable producers (18%), grass and grain producers (13%). Farmers markets, food processors and makers and community programs (10%) made up the rest of respondents.

The majority of respondents are small to medium scale producers. About 60% percent of respondents are from the small-scale agriculture sector with gross farm revenue under $30,000 per year. A further 28% are medium scale ($30,000-100,00/yr).

The smaller farmers were engaged in more diverse food production activities. Generally speaking, the larger farms were focused almost exclusively on livestock production. None of the farms generating more than $100,000 revenues per year were engaged primarily in fruit and vegetable production or grain production. Only the farms with less than $30,000 per year were primarily engaged in food processing.



Over half of respondents process products. Fifty-four percent of respondents produce processed products while the remainder do not. Of those that do process, 79% of them indicated they use abattoirs, 33% do on-farm processing, 20% do out of region processing, 8% do off-farm processing, and 8% process in a health certified commercial kitchen space. Many respondents indicated that they conduct more than one type of processing.



Most producers use direct to consumer marketing methods to sell their products. While many producers used multiple sales channels to sell their products, most focused on direct to consumer channels such as farmgate sales, online sales and farmer's markets. Less than 10% sold through a distributor.

Aspirations of the respondents

Sixty-one percent of respondents are interested in expanding their business, while 39% are currently satisfied with existing business and level of sales. Of those who are interested in expanding their business, their expansion ideas are summarized under the headings below.

1) Expanding meat production and processing (primary and secondary). Comments made under this heading include:
    - Improve slaughter flexibility and access (e.g. allow class D slaughter licenses to-farm slaughter of up to 25 animals for sale to consumers or local retailers, expand slaughter capacity, get access to a mobile abattoir) – 5 responses like this
    - Increase herd size (sheep, pigs, cattle) – 3 responses
    - Expand meat processing capacity – 2 responses
    - Acquire more land
    - Increase sales if cost effective way to market
    - Secure a grazing license
2) Broaden customer base to include regional customers and beyond. Comments made under this heading include:
    - Find ways to sell to new and different customers – 5 responses
    - Increase sales to local customers - 3 responses
    - Establish a year-round local-only food store – 3 responses
    - Sell to customers farther away – 2 responses
    - Find new retail outlets willing to carry local products
3) Improve product development, processing and marketing. Comments made under this heading include:
    - Expand range of processed products with a commercial kitchen – 5 responses
    - Sell greater range of products and special items (e.g Xmas dinner packages, variety boxes, sides of beef) – 3 responses
    - Expand direct to consumer sales, including online sales - 2 responses
    - Improve storage capacity to be able to sell products year-round – 2 responses

Other comments included:

- Establish a school gardening program where students learn the economics of growing food and then make some money by actually growing the food
- Obtain expert advice on how to meet government regulations for dairy and fermented, processed foods.

Services and equipment desired by the respondents

Respondents were asked to select all food hub services and equipment that they would be interested in using. Of all of the options, **a local food store** was selected as the most popular service that a food hub could provide. On-line sales and storage, aggregation, and commercial kitchens were also selected frequently. Twelve respondents indicated they are not interested in food hub services. This table is also provided in the body text and can be found as Table 3.2.

Potential Food Hub Service	**Responses**
Sell products at small 'local food only' retail outlets open 5 days/week	37
Online sales platform where customers can easily order your products	33
Ambient, refrigerated and/or frozen storage space (within 1 hour drive)	25
An aggregation service where your products are packaged (along with other producers) and delivered to customers (within a 1 hour drive)	23
Commercial kitchen / Food processing facility (within 1 hour drive)	21
Food delivery to wholesale customers (eg: retailers and restaurants)	19
Food delivery to homes or consumer drop-off points	18
Business skills training programs for farmers / processors	17
Food delivery to large buyers (eg: institutions, major grocery stores)	15
An incubator program for food entrepreneurs	9

Producers are hungry for a wide range of training and education opportunities. The most popular topics are business planning, soil and nutrient testing, webinars, and how to grow/raise/process particular products. This table is also provided in the body text as Table 3.1.

Educational training – topics of interest	**Responses**
Business planning and marketing for small business	26
How to do soil/nutrient testing/create proper food packaging labels	26
Webinars with guest speakers on local food topics	25
How to grow particular crops/do value added processing	23

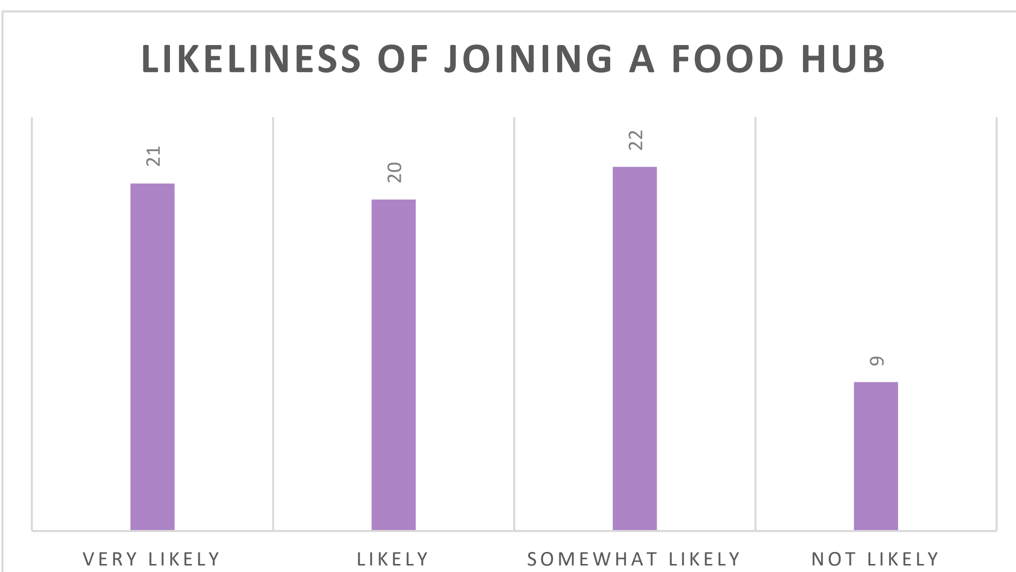
Take food certification courses (Food Safe 1 and 2, Market Safe)	19
How to operate/manage a local food business	14
How to develop and market products	13
Learn about specialize equipment to grow/raise/process certain products	12
How to start and operate an agricultural cooperative	11
How to become GAP or HCCAP certified to sell to retailers/institutions	11
An incubator program for food entrepreneurs	10

Other education training ideas from survey respondents include:

- Rotational Grazing Practices and diversifying markets
- Butcher, cut/wrap, curing, sausage making, meat processing, slaughter-safe, etc.
- Cattle management- i.e. health and nutrition
- Land management i.e. how to get the best out of producing land with the materials we produce (manure to fertilize instead of chemicals).
- How can a farm produce energy to go back to the grid
- Permaculture and regenerative agriculture
- How to use a freeze dryer and how to freeze dry food
- Beekeeping course

Views about participating in a food hub

Respondents are likely to use a food hub. A high percentage of respondents (87%) said they were somewhat to very likely to use a food hub



Most producers are not quite ready to do so now. When asked if they were ready to use a food hub, the largest segment (45%) of respondents indicated that they are not ready or are doing fine now in regards to using/joining a food hub. One respondent noted, that while they see value on a food hub for new entrants, “most of us have had to make do without this kind of [food hub] help and have already made arrangements to own or share the equipment necessary for our operations.” Although this indicates a lack of readiness, if considered together, 54% of respondents indicated they were almost ready, ready now, or ready yesterday, potentially indicating a good level of readiness for certain producers.

Of the 38 respondents who indicated they are more likely to use a food hub in the near future, their characteristics are as follows:

- 88% are small and medium sized producers with< $100,000 annual revenues.
- 70% are livestock farmers and/or fruit and vegetable growers.
- 88% sell direct to customers/farm gate sales.
- 78% are interested in expanding their business.
- 48% of them are from the Vanderhoof/Fort St. James area.

In terms of the interests of these “hub-ready” respondents, they are most interested in the following hub services:

- Retail outlet (73% of “food hub ready” respondents)
- Online store (65%)
- Food storage (48%)
- Business planning courses (48%)

Based on the responses from “food hub ready” respondents, establishing a retail outlet in Vanderhoof with an online store for livestock and produce growers has strong potential.

Respondents expect a food hub to deliver specific outcomes to make it worth it to join. Many respondents highlighted the need for the food hub to be able to reach new markets and customers (regionally and beyond), overcome barriers, provide knowledge and so on. These comments are grouped under the categories below.

- It should increase access to new customers and new markets
  - Provide more opportunities to sell direct to consumers and sell locally
  - Create the opportunity for “one-stop shopping” for all local products
  - There is a lack of slaughter-safe or HCCAP certified meat processing facilities
- It should help me reduce costs
  - Market products as a group to reduce individual producer marketing costs

    - Share costs for equipment, storage, distribution
    - Give me access to a shared space to access processing equipment
- It should improve my knowledge
    - Provide training and knowledge to produce more products/ improve productivity
    - Provide webinars to eliminate the need to travel for training
    - Provide training so hobby farmers with full time jobs elsewhere can participate
- It should help address regional meat processing gaps
    - A need exists for more meat processing capacity, particularly butchering services
    - There are not enough butchers to expand local meat sales
    - There is a lack of slaughter-safe or HCCAP certified meat processing facilities
    - Current slaughter regulation are inconsistent and create challenges –
- It should provide additional benefits
    - Lead to partnerships with key players, including youth
    - Increase access to funding sources to set up the food hub

Appendix E: Full detail on small group meetings

Two group meetings were held via video-conference, one with the Vanderhoof area group (February 8, 2021) and one with the Smithers area group (February 10, 2021). Although turn-out was not as high as hoped, we were able to have in depth conversations with participants on the potential functions and services of a regional food hub network and what it could look like in their respective communities.

Element 1: Set up a coordinating body for the food hub network

Vanderhoof feedback and comments	Smithers Feedback
◻ How could the Nechako Valley Food Network participate in the hub if the food hub elements in Vanderhoof are not organized as a society? The Nechako Valley Food Network could be an initial convenor of a hub network or hub elements for the Vanderhoof area. ◻ The Springhill Bison Company is developing a number of local food initiatives, including food processing and a retail store.	◻ Need more information on who would be involved and what the nature of a food hub network would be.

Element 2: Establish a region-wide online marketplace for region-made foods

Vanderhoof feedback	Smithers Feedback
◻ Has to provide predictability and confidence for producers and consumers. ◻ Vanderhoof could focus more on aggregation and distribution with listing products through a single broker rather than each producer listing their own. ◻ The farmers' market is currently operating an online store.	◻ Good idea, however platforms that have been tried before and generated low sales. ◻ There is a challenge with getting producers to participate in online sales platforms (e.g. some are not comfortable using computer software, others are concerned that customer won't place orders online).

Element 3: Provide aggregation/distribution service to fulfill online orders

Vanderhoof feedback	Smithers Feedback
◻ Part of the Springhill vision is to explore the idea of some kind of processing line for produce (e.g. diced, frozen vegetables to sell to institutions). This would need to happen at scale. ◻ Requires someone to work with producers for crop planning as well as producers becoming GAP certified.	◻ If done through a contractor, may be easier to engage producers who are not interested in using online sales services. ◻ Having a drop-off and pick-up point with some cold storage may be a good model for Smithers. Needs staff.

Element 4: Provide a food storage (ambient, cold,& frozen) rental service

Vanderhoof feedback	Smithers Feedback
◻ Potential to link with the Haskap producers for storage. ◻ Would like a root cellar with cold and frozen storage. ◻ Most producers are not in to scaling up and therefore may need extra storage capacity.	◻ Some producers have their own on-farm storage but don't want to take the risk of storing product for other producers.

Element 5: Establish a processing facility

Vanderhoof feedback	Smithers Feedback
◻ In the Springhill model, how would we separate the commercial processing kitchen from the store- what would work better for community use vs. enterprise use?	◻ This is already happening on an individual basis- not sure there is an sufficient demand for more processing capacity.

Element 6: Identify new value-added processing opportunities

Vanderhoof feedback	Smithers Feedback
◻ Frozen diced carrots, squash, beets, and corn could provide an opportunity to sell to institutions. The equipment can be used for multiple product types.	◻ Links to climate action initiative and research that was done into new products.

◻ Production volumes need to be large enough to meet minimum order requirements of institutions.	◻ Interest in the idea of being able to sell surplus product from the farmers 'market to a value added processor. ◻ Some research was done at UNBC on different products that could be grown.

Element 7: Improve meat slaughter and processing capabilities

Vanderhoof feedback	Smithers Feedback
◻ There was a poultry abattoir/processor that was in strong demand but the owner closed it down and sold off all the equipment. This suggests that, if someone established a replacement poultry abattoir, it would have sufficient demand.	◻ Many people have had to find their own solutions. ◻ Important to not grow market ahead of capacity. ◻ A wide range of users would need to benefit. ◻ There is a bottleneck with cut and wrap services.

Element 8: Provide business, farming and certification services

Vanderhoof feedback	Smithers Feedback
◻ This is where the NVFN could provide services for a fee. It does not work on a volunteer basis. It would be good to provide training similar to the "Beyond the Market" program, which included canning workshops.	◻ This is what the Smithers Farmers Institute is doing. They could potentially expand this program

Element 9: Find ways to collaborate with First Nations

Vanderhoof feedback	Smithers Feedback
◻ Potential point of common interest on processing infrastructure. It was mentioned that sewer and water availability are important	◻ There was no discussion on this topic.

Element 10: Establish complimentary local-only “farmers’ stores”

Vanderhoof feedback	Smithers Feedback
◻ Like the idea of a *local first* store that prioritizes local but brings in other products to fill the gap in supply and demand. ◻ “If you can’t keep goods in store, you can’t keep customers”. ◻ Store would help increase agritourism.	◻ Smithers probably does not need additional farmer stores. ◻ Farmers’ markets and gate sales do well for a lot of local farmers.

Appendix F: Market Research on Selected Product Types

Below we outline key types of products that potentially could be cultivated in the RDBN on a commercial scale for export out of the region to help strengthen the food economy. They were selected based on recommendations by key key players in the region, their suitability to be grown in the region and their potential for significant expansion.

Non Timber Forest Products

Non Timber Forest Products (NTFPs) are foods, medicines, arts & crafts, landscape plants, natural chemicals, environmental goods, and specialty biofuels that can be derived from forest plants.[18] The value of NTFPs to the Canadian economy was estimated to be about $725 million in the year 2000.[19] In BC, tens of thousands of people derive some of their income from harvesting and processing NTFPs, although the economic value of the NTFP industry in BC is difficult to calculate[20]. In the late 1990s, the value of the BC NTFP sector was estimated to be about $250 million per year[21]. It has grown significantly since then, but no recent industry studies have been conducted to confirm how much it has grown.

More than 300 products are produced by about 200 enterprises listed in the Buy BC wild directory (see www.BuyBCwild.com). New businesses are emerging and new products are being developed in response to new markets, including the following:

- According to a 2010 case study, the annual commercial huckleberry harvest in the Kootenay region ranges from 8,000 to 58,500 kg, while the recreational harvest adds another 25,000 to 51,000 kg.
- A 2006 Georgia Straight article[22], indicated that salal harvesters in Campbell River and Powell River had about $500,000 wholesale sales per year to buyers in BC, Alberta, and Hong Kong.
- The floral greens market in BC (which is 85-95% salal) is estimated at $27-$65 million per year.[23]

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[18] Mohammed, Gina H. 2011. The Canadian NTFP Business Companion: Ideas, Techniques and Resources for Small Businesses in Non-Timber Forest Products & Services. Sault Ste. Marie (Ontario): Candlenut Books. ISBN: 978-0-9731097-2-6 (CD-ROM).
[19] https://woodlot.novascotia.ca/book/export/html/29
[20] Hobby, T., D. Mitchell, Tedder, S., McBeath, A., & Wang, S. 2006. Economic subcomponent. In: Critical information for policy development and management for non-timber forest products in British Columbia: Baseline studies on economic value and compatible management. FIA-FSC Project Y061065. Centre for Non-timber Resources, Royal Roads University, Victoria, B.C.
[21] Wills, R.W. & R.G. Lipsey. 1999. An economic strategy to develop non-timber forest products and services in British Columbia. Final report to Forest Renewal British Columbia, Victoria, B.C.
[22] https://www.straight.com/article/marketing-of-forest-floor-has-consequences
23 https://www.for.gov.bc.ca/hfd/library/FIA/2006/FSP_Y061065d.pdf

Little information exists on the market for wild harvested mushrooms in BC. Most commercially harvested mushrooms are exported to Europe and Japan. These two markets generate a wholesale value of about $14 million per year.[24]

The most common types of NTFPs harvested in the Pacific Northwest include:

- Mushrooms: Bolete, Chanterelle, Morel, and Pine
- Floral: Salal, Pine needles and cones (as decorations), Beargrass leaves, Fir boughs
- Berries: Huckleberry, Blackberry, Salmonberry
- Medicinal herbs, etc.: Yew bark, stinging nettle, fireweed, balsam, and devil's club

Large wholesale buyers of edible BC NTFPs include West Coast Wild Foods and Mikuni Wild Harvest. These buyers aggregate, sort, wash, process and package harvested NTFP products in urban warehouses and distribute them to restaurants, food processors and retailers primarily in the Pacific Northwest, but also around the globe.

A national report published by the Canadian Forest Service in the early 2000s, estimated that the economic value of NTFPs in Canada could be increased four or five-fold by exploiting new products and new markets.[25] This suggests there is ample market opportunity with proper knowledge, training and market development.

Industrial hemp

Industrial hemp is an emerging field crop that has seen strong growth, but significant decline from 2017 to 2018. The number of farms producing industrial hemp increased from 132 in 2011 to 224 in 2016. During that same period, crop area expanded from 26,000 acres to over 45,000 acres. Alberta has the largest growing area at 33%, followed by 30% each in Saskatchewan and Manitoba and the remaining 7% in Ontario, Quebec and BC. Hemp grows best in areas with large swaths of flat land, good drainage (clay soils) and dry summers. Hemp has two key commercial uses:

Nutraceuticals - hemp oil contains high amounts of Omega-6 and Omega-3 essential fatty acids that help lower blood pressure and reduce the risk of cardiovascular disease. Hemp seeds, which are small nuts, possess essential amino acids that improve muscle control, as well as brain and nerve function. Because of these Essential Fatty Acids, hemp seed and their derivatives have strong customer demand. Hemp grown for the nutraceuticals has to be grown with special care, normally on a smaller scale, to increase the concentration of compounds used in the industry.

Industrial - hemp fibres are known for their strength and flexibility, making the plant an ideal bio-composite for automotive and aerospace parts. Moreover, hemp fibres are also quite absorbent, which can aid in oil and gas cleanups.

[24] http://www.fao.org/3/XII/0379-B1.htm
[25] http://caid.ca/Frontline28.2003.pdf

Domestic hemp production faces significant competition from overseas sources and alternatives to hemp seed. Hemp has good potential as an ingredient in domestic pet/vet/birdseed products, as well as in feed for cattle, poultry, and fish. Hemp can also be used for other niche purposes such as construction materials for buildings, clothing, paper, animal bedding and biofuel. There is a proposal to build an ambitious $350 million hemp processing operation in Prince George that will create 1,500 jobs. Their plan is to lease 300,000 acres of land to cultivate hemp by 2025.

Awareness about hemp is rising because hemp is used in many quality products and has health benefits. Some hemp companies have reported 20–40% growth over the past few years. Retail sales of Canadian hemp products are now estimated to be $20–$40 million USD annually. Hemp exports totalled $7m in 2018, a 42% decline from $12m in 2017. In 2018 99% of Canadian hemp was exported to the US (as hemp farming is not allowed in the US).

Because hemp plants are classified as Cannabis sativa (same as marijuana plants) hemp is regulated by Health Canada. This means growers need a licence from Health Canada and must buy seeds from certified seed suppliers. While hemp has a reputation for being easy–to–grow, harvesting the taller, high fibre yielding varieties is challenging for some operators. In regard to fibre, industrial infrastructure to process the fibre is just being established. However, there is no lack of facilities for processing the seed. While fibre hemp has large potential, hemp production to date has been focused on the seed side. Note that latitude influences hemp seed attributes. Some field research indicates that hemp seed grown at higher latitudes has a higher Essential Fatty Acid (EFA) content and a tendency to have lower THC levels. This is because hemp is a daylight sensitive plant.

Haskap berries

According to Statistics Canada[26] production of haskap and other berry crops has grown significantly. From 2011 to 2016, the number of Canadian farms producing haskaps and other specialty berry crops tripled to 549 farms. Revenues have also grown recently, from $1.3m in 2018 to $2.3m in 2019, a 77% increase. Over 50% of Canadian haskap berries are sold through direct marketing channels, such as farm gate sales and farmers' markets.

Another indication of the interest in haskaps and other berries is the increase in crop area. Statistics Canada identifies, across Canada, farms producing haskaps and other berries grew from 557 acres in 2011 to 1,761 acres in 2016. Quebec has the largest growing area with 37% share, followed by Saskatchewan with 20% share, then Alberta, Nova Scotia and Ontario. BC has only just begun growing haskap berries in the past few years in its northern regions, especially the Peace River region and the Okanagan, especially Salmon Arm which is home to one of BC's more established haskap berry farms, High Mountain27.

Growth in this "other fruit crop" may be attributed to innovative scientific research, which has helped identify the haskap plant as a viable northern crop because of its ability to withstand

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[26] https://www150.statcan.gc.ca/n1/pub/96-325-x/2017001/article/54924-eng.htm

[27] https://www.highmountainfarm.ca/

frigid Canadian temperatures. In addition to its winter hardiness, haskaps have health benefits, reputedly have one of the highest concentrations of antioxidants and are also high in vitamins. Haskap berries can be used to make wine, spirits/liqueurs, juice, jam, spreads, tarts, chutneys and relishes, ice cream, yogurt, dried berries and powdered berry mixes. There is also research currently being done in Asia on the berries' medicinal properties for pharmaceutical products.

Haskap growers in Canada have formed their own Haskap Canada Association[28], which has regional associations, including BC[29]. The associations have a strong partnership with the University of Saskatchewan, which is a leader in haskap berry research and cultivation.

Darren Shankel, VP of BC Haskap Association, highlighted that haskap berries currently retail for ~$18/lb fresh and mostly found at farmers' markets, gate sales and some grocery stores. The wholesale price, in BC, is around $7/lb and the global export price can drop to as low as $2/lb. The global export market price is driven low by the large, subsidised farmers in Quebec. In BC, the biggest market is currently the fresh direct market. Larger grocery stores such as Save on Foods and Federated Co-op are beginning to take an interest. Some customers are also now buying them frozen in bulk normally in 20 lb boxes for $4.30/lb. An emerging market in BC is the value add market, which is showing great growth potential. Therefore, the best opportunities for growers are direct sales, value add products and growing certain cultures for the Japanese market. It is assumed only 10% of BC residents have even heard of haskap berries, highlighting its opportunity for growth in the province.

Ideally a grower would plant between 5 to 20 acres, with 900 to 1,300 plants per acre. The plants will produce ~1lb of berries per plant in year 2, then 3lb per plant in year 3 and at maturity (4 to 6 years) ~10lb per plant. Farms can therefore expect ~10,000 lbs per acre, ~$70,000 wholesale or $180,000 retail per acre.

To develop and supply a market a region will need to invest in infrastructure, including cold storage (at >90% humidity the berries can hold fresh for 3 weeks), blast freezers, harvester and harvester operator, freeze drier, a distribution network and a processing facility.

Observation on new markets

The RDBN is a good region to trial new agricultural commodities due to its large areas of affordable agricultural land and accessible forests. However, with its high latitude and mountainous geography, the range of products it can produce are limited. From the above 3 agricultural products, the most market-ready products would be Non Timber Forest products and haskap berries. Hemp can be cultivated in the area but would probably be out-competed by hemp grown in regions that already grow other grain crops. Unless hemp growers could take advantage of the new facility in Prince George or the nutraceutical market. Both haskap berries and non-timber forest products show potential for growth due to the increasing demand for health products that have specific nutrients (e.g. Omega oils,

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[28] https://haskap.ca/producers/

[29] https://bchaskapassociation.com/

antioxidants, and protein) especially from plant-based foods. Other potential food categories to conduct further market research into include but are not limited to:

- Game farming and fur farming.
- Certain meats: bison, goat and hog.
- Saskatoon berries, chokeberries, and huckleberries.
- Processed foods made with locally grown berries e.g. syrups, jellies and jams.
- Processed fish (e.g. salmon from First Nations)

Appendix G: Food hub software examples

Below is an overview of some of the more established ERP (Enterprise Resource Planning) software program for online sales of local foods.

Platform Name	Local Food Marketplace[1]	Local Line[30]	Delivery Biz Pro[31]	Lulus Local Food[32]
Setup Cost	$499 to $1,499	None	Customized	None
Ongoing costs	$79/month to $229/month	$59/month to $340/month plus additional add on fees	Customized	3% of sales or minimum of $10/month
Inventory & Distribution	Ecommerce, fulfillment, inventory management, dispatch & routing	Ecommerce, fulfillment, inventory management, dispatch & routing	Fulfillment, inventory management, dispatch & routing	Fulfillment, inventory management, dispatch & routing
Sales & customer service	Ordering & customer service tools	Fresh sheets, supplier profiles, download materials	Customized support & customer service tools	Customized support & customer service tools
Online & mobile	Customizable website & app	User and mobile friendly website	User and mobile friendly website	User and mobile friendly website
Multi-channel sales	Food hubs, markets, farm direct & CSA	Food hubs, co-ops, markets, farms and CSAs	Mainly for food delivery services	Farms, farmers' markets, food hubs & CSAs
Reporting	Multiple reports	Dashboard & reports	Dashboard & reports	Reports
Users	https://harvestdrop.com/	http://www.goodnaturedfamilyfarms.com/	https://southmountaincreamery.com/	https://healthyrootscollaborative.luluslocalfood.com/
Notes	Membership management tools	Square and Quick Books integration		

Before finalizing a decision on which platform to use the team may want to develop a formal evaluation process. New Venture Advisors has put together a very useful report called Tech Guide for Food Hubs[33], outlining what this process could look like. For example, they recommend the evaluation team run free trials of each of the ERPs they are looking at. They also provide a blank evaluation template.

[30] https://site.localline.ca/
[31] https://www.deliverybizpro.com/
[32] https://www.luluslocalfood.com/
[33] https://www.scribd.com/document/487138398/Food-Hub-Tech-Guide-pdf

Appendix F: Pilot Project Ideas

Pilot Project #1: Online Food Marketplace with Packing and Delivery

Overview

In the initial phase of establishing a food hub network in the Regional District of Bulkley Nechako, launching an online marketplace with order fulfilment is a critical first step. This would involve setting up an off-the-shelf platform, hiring a food hub network coordinator, and arranging access to a small space in or near Smithers and in or near Vanderhoof where producers can drop off their products once a week and have them re-packed into customer orders. A contract driver or third-party shipper could then deliver these orders, also once a week.

Initially, it may make the most sense to establish two sub-regional online marketplaces, one for the east part of the region and the other part of the region. To be successful, an online marketing place needs to build quickly to offer products from at least 25 different vendors and to have at least 10 retail, restaurant or institutional buyers willing to order weekly on the marketplace. If they allow individual customers to order, a minimum of 50 orders are needed each week.

Ideally there would be nearby access to a walk-in cooler and walk-in freezer so that partial cases of products can be stored in between packing days. To give the online platform a strong start, it would be important for a high percentage of the producers currently selling to grocery retailers, restaurants, or institutions, to shift their existing sales to the hub.

In addition to the above, the hub network could begin offering food entrepreneur support programs, preferably in partnership with local government agencies. This could include food/farm incubator programs for food enterprise start-ups or accelerator programs for established food enterprises that want to take their business to the next level.

Key Requirements

An on-line food market place has many functionality requirements. Fortunately, many platforms are available for purchase, making the website development fairly straight forward. Other functionality requirements include but are not limited to:

- ✓ Producers can list their products, set prices and remove products when they run out.
- ✓ Buyers can search the full list of available products and add them to their shopping, for delivery on a single order and a single invoice.
- ✓ Buyers can integrate this software with other accounting, inventory and sales software.

- ✓ Packing staff can print out a "packing list" for each customer order.
- ✓ Delivery staff can set delivery charges for each order, sequence their deliveries and print out a delivery list.
- ✓ Accounting staff can easily import orders into an accounting software program to create invoices and financial statements.
- ✓ The monthly fees for the platform are low.

Once orders are placed on the online platform, the next step is to re-pack the producer products into customer orders. Typically, producers will drop off their products at a central distribution point each week where those products are then re-packed into individual customer orders. The distribution point can be as simple as a meeting spot in a parking lot where the orders are re-packed on the back of someone's truck. However, once a certain volume of orders is reached, it is much more practical to have a small warehouse space where a basic packing line can be set up and larger orders can be stacked on pallets and moved with a pallet jack. At larger sales volumes it makes sense for the distribution facility to have storage space so that items that need to be kept refrigerated or frozen can be stored overnight.

Key benefits

The key benefit of an online food marketplace include:

- ✓ Enabling food brokerage in places where producers are reluctant to use on-line tools or sell directly to buyers on-line.
- ✓ Enabling aggregation of orders to supply larger buyers.
- ✓ Creating opportunities for existing enterprises that sell regional products to streamline purchasing and increase volumes of purchases.
- ✓ Creating a technology and relationship foundation for a regional food hub network to build on.

High level business model

The two-year pilot project business model below describes the major revenue streams and associated costs. One scenario, presented here, shows a loss in the first year, but a financial breakeven in the second year assuming membership grows and on-line sales reach $213,000.

Revenues and Expense Category	**Year 1 Establish Online Platform**	**Year 2 Promote and grow service**
Revenues		
Memberships	$2,500	$5,000
Online sales + distribution	$96,000	$212,500
Sales to institutions	$10,000	$36,000
Consulting services	$14,400	$36,000
Other revenues	$2,022	$8,902
Total revenues	**$124,922**	**$298,402**
Cost of Goods Sold		
Online sales + distribution	$82,560	$172,550
Cost of institution sales	$9,000	$32,400
Consulting services	$12,000	$30,000
Costs for other revenues	$2,466	$6,814
Total Cost of Sales	**$106,026**	**$241,764**
% gross margin	15.1%	19.0%
Expenses		
Labour	$25,000	$40,000
Other expenses	$12,492	$15,615
Total expenses	**$37,492**	**$55,615**
Surplus/loss	($18,596)	$1,023
% profit	-14.9%	0.3%

Pilot Project #2: Local-First Food Store

Overview

A "local-first" food store is a food store that gives first priority to selling products that are grown, raised, made, and baked in the region. When regional food products are not available, additional stock is purchased through other channels. A local-first food store creates a place where regional producers can sell a range of food products in a traditional retail setting 5-7 days per week year-round.

A local-first food store has emerged as a need and desire from producers and consumers in the RDBN. Existing local food stores like *Out of Hand* Smithers and *Green Zone* in Burns Lake already offer a good selection of local food products. Their selection could be expanded as more local food entrepreneurs begin producing/selling new products through the online food marketplace described in the previous pilot project. The Nechako Valley Food Network in Vanderhoof is exploring options for setting up such a store where residents in and around Vanderhoof can buy local products.

Key requirements

To be a successful and have a good selection, a local-first food store need to be able to source products from about 30 or more vendors. Long Table Grocery in Quesnel is a good model to adopt as they offer multiple revenues streams (local grocery, local café, food workshops, subscription box, some processed foods, etc.). Other key requirements include:

- ✓ Having a solid business plan for starting-up and growth.
- ✓ Creating effective print, online, and social media marketing/branding for the store.
- ✓ Developing strong relationships with producers and processors.
- ✓ Operating year-round, 5-7 days per week.
- ✓ Carefully tracking and reducing costs.
- ✓ Establishing good relationships with existing enterprises that sell local products.

Key benefits

The key benefit of a local-first food store include:

- ✓ Increasing availability of regional products to both large and small customers.
- ✓ Allowing food enterprises that already sell local to buy extra products from the store.
- ✓ Making the store a regional attraction for both residents and visitors (post-pandemic).
- ✓ Creating more opportunity for regional producers to reach customers.

- ✓ Reducing marketing requirements for producers so they can focus on raising, growing, making, and baking food.
- ✓ Providing a central point for other food hub network activities.

High level business model

The two-year pilot project business model below describes the major revenue streams and associated costs for a Local Food First store. One scenario, presented here, shows a large loss in the first year, but closer to a break-even in the second year. It is likely that the enterprise will take longer than two-years to realize a profit. If, by year 2, the local-first food store can reach $450,000 in sales, the store could employ five people. Strong marketing, branding, and relationship building with the regional food hub network will help increase the revenues and profitability of the store.

	Year 1 Start up and establish presence	**Year 2 Grow volume and diversity of products**
Revenues		
Product sales	$225,000	$450,000
Food storage rentals	$4,320	$6,000
Total revenues	**$229,320**	**$456,000**
Cost of Goods Sold		
Product sales	$150,750	$292,500
Food storage rentals	$2,160	$3,000
Total COGS	**$152,910**	**$295,500**
% gross margin	33%	35%
Expenses		
Staffing costs	$80,000	$120,000
Operating expenses	$50,000	$54,720
Total expenses	**$130,000**	**$174,720**
% gross margin	43.3%	61.7%
Surplus/loss	**($53,590)**	**($14,220)**