



Coastal Addendum to the Alberni Agriculture Plan

December, 2018

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Executive Summary

In 2011, the Alberni-Clayoquot Regional District (ACRD) published the Alberni Agricultural Plan. Except for identifying it as a strong market, the Plan lacked references to the ACRD's coastal communities. This *Coastal Addendum to the Alberni Agricultural Plan* services this sub-region by defining the needs, perspectives, and attributes of its unique population and geography, and offering action recommendations which will help to stimulate local, appropriate, and efficient agricultural development.

The Addendum's development process included public and stakeholder engagement; ecological, social, economic, and physical site assessments by a Professional Agrologist; and consultation and advisement from a diverse table of Coastal representatives. This report consists of three sections: background and contextual information; the Agrologist's Report; and an Implementation Plan. Appendixes include grant and business resources and sketches of coastal assets and land-based producers.

Coastal Context

The coastal context is irrefutably unique. In such a geographically remote and sparsely populated area, any amount of production has a significant benefit, and its scale and impact cannot be compared to that of areas with dense populations and substantial agricultural operations. Multiple governments and community centres are spread across a broad region, many are water-accessible only, and each has some independent interests and infrastructure.

Concurrently, even a relatively small commercial operation could provide for a tremendous proportion of the needs of the scant resident population, and the tourism industry and restaurant culture offers a lucrative venue for specialty and locally-branded products. Agricultural opportunities also include the production of fibre, fuel, compost, flowers, and related processing and distribution systems. As one stakeholder put it, it is the strongly food-interested and entrepreneurial coastal population that is its finest resource.

Traditional soil-based farming is only one picture in the coastal food system puzzle. Coastal geography may make conventional agricultural production difficult, and the strong and productive Nuu-Chah-Nulth and maritime histories mandate the integration of marine and forest resources to some degree. A contextually-appropriate coastal food production plan must include innovative techniques, support for non-conventional and non-soil based agricultural practices, and the use of partnerships, wide support networks, and local traditional knowledge.

"Our food is celebrated and recognized for its role in nourishing individuals, livelihoods, and relationships. A strong and localized food system provides dignified access to food for our people, a sense of place for our communities, and the seeds of resilience for future generations. We respectfully use the resources we have on hand, preserving our ecosystem through responsible stewardship."

- Project Vision Statement -

Agrologist's Report

A Professional Agrologist was contracted to assist with site assessments of specified parcels of interest and to identify potential opportunities within the region.

Preliminary Site Surveys, which included proprietor interviews, took place on 8 land parcels, and case studies were subsequently developed for 3 of them. The Case Studies include a backyard garden/farm, a currently barren municipal property, and a Yuułu?il?ath community garden with development potential. It was intended that the results and recommendations could be transferable to other coastal initiatives. The Agrologist's Report also includes: climate and soils data; key ecological, social, and economic themes and opportunities; and a comprehensive resource list for further research and project models.

The Implementation Plan

The Implementation Plan outlines tangible actions that will support the development of impactful coastal agricultural initiatives. It is based on 8 overarching goals, and a multitude of action strategies for a variety of stakeholders offered for each. In support of all 8 goals, 3 Key Activities are noted as primary: *Create Compost, Develop a Coastal Agriculture Roundtable (CAR), and Support a Community Coordinator.*

The ultimate impact of actions will depend on the motivation and abilities of the people who undertake them. Challenging steps will require support and backing from the community level and beyond. Businesses need a healthy and strong habitat in which to establish themselves and grow. Non-profit organizations rely heavily on public funding and community contributions.

An increase in an individual's awareness and desire to actively participate in greater food production is legless without societal support through external policies and action, and vice-versa. This Addendum aims to guide change at both levels. While it cannot itself solve problems or include all possible support strategies, what it can do is to *point a way*, offering the information, guidance, and recommendations that support achievement of the coastal community's vision.

We acknowledge the traditional territories of Hesquiaht First Nation, Tla-o-qui-aht First Nations, Toquaht Nation, Ahousaht, Yuułu?il?ath, Huu-ay-aht First Nation, Ditidaht, and Uchucklesaht First Nation in the spirit of truth, healing, and reconciliation.

This project was funded in part by Agriculture and Agri-Food Canada and the Government of British Columbia through programs delivered by the Investment Agriculture Foundation of B.C.

Agriculture and Agri-Food Canada, the Government of British Columbia and the Investment Agriculture Foundation of BC, are pleased to participate in the delivery of this publication. We are committed to working with our industry partners to address issues of importance to the agriculture and agri-food industry in British Columbia. Opinions expressed in this report are those of author and surveyed public and not necessarily those of the Investment Agriculture Foundation, the Government of British Columbia or Agriculture and Agri-Food Canada.

Other funding partners and contributors include the ACRD, the Tofino Community Food Initiative (TCFI), Clayoquot Biosphere Trust (CBT), and the Districts of Tofino and Ucluelet. A special thank you to the project's Steering and Advisory Committees, the ACRD Agricultural Development Committee, and to the residents, businesses, and government representatives who shared their feedback and input.

Cover Photo Credit: Dan Price-Francis



A Vision and Plan for Coastal Agricultural Development



Our Vision

Our food is celebrated and recognized for its role in nourishing individuals, livelihoods, and relationships. A strong and localized food system provides dignified access to food for our people, a sense of place for our communities and the seeds of resilience for future generations. We respectfully use the resources we have on hand, preserving our ecosystem through responsible stewardship.



Guided By

- Public engagement
- Steering Committee
- Multi-sector Advisory Committee
- Professional Agrologist
- Consultants with local and expert knowledge



Project Results

- Research and analysis of coastal background and context
- Agrologist assessment and report
- Implementation Plan that addresses eight identified goals



Implementation Plan – Key Activities

Create
Compost

Establish Coastal
Roundtable

Support Coastal Community
Coordinator

Infographic by: Erika Goldt, CBT

Section 1: Background and Research

1) Project Process

This Addendum's development consisted of the following processes:

1) Stakeholder Surveys, Interviews, and Public Forums

- Online public survey via Survey Monkey (36 respondents)
- Public forums in Ucluelet, Tofino, and Bamfield
- One-on-one interviews with stakeholders including businesses, governments, councils

2) Physical Site Surveys

- Physical site assessments by a professional agrologist
- Selection process via public application, with 8 properties selected in May 2018
- A follow-up survey of 3 properties completed in October, 2018

3) Steering and Advisory Committee meetings

- Advisory Committee meetings in May and October, 2018
- Steering Committee meetings (2), and ongoing correspondence
- Vision development, identifying goals, review and developing Implementation Plan

4) Publication of Interim Report

5) Implementation Plan development and final document publication

Figure 1: Project Committee Members

Name	Organization	Steering Committee	Advisory Committee
Heather Shobe	Project Lead	✓	✓
Erika Goldt	Clayoquot Biosphere Trust	✓	✓
Leah Austin	Tofino Community Food Initiative	✓	✓
Hannah Roessler	Professional Agrologist	✓	✓
Tina Windsor	Picnic Charcuterie	✓	✓
Cathy Burkosky	Avalon Farm	✓	✓
Al Anderson	District of Tofino		✓
Bruce Greig	District of Ucluelet		✓
J.P. Hastey	Nova Harvest Ltd.		✓
Ashley Hawker	Area C - Long Beach		✓
Bobby Lax	Tofino-Ucluelet Culinary Guild		✓
Anna Lewis	Healthy Harvest Farm and Hupacasath Community Farm		✓
Melanie MacLeod	Clayoquot Organics (Past Coastal Producer)		✓
Amy McConnell	Area A - Bamfield		✓
Dan Price-Francis	Bodacious Oasis, Coastal Producer		✓
Gordon Taylor	Yuutu?if?ath First Nation		✓

2) Related Background Documents

Alberni Agricultural Plan, 2011

- Outlines the Alberni Valley agricultural industry and outlines an action plan for its expansion and support
- Describes much of the policy and background relevant to coastal agricultural initiatives
- The mother document for the Coastal Addendum

Alberni Valley Food Charter

- Principals and strategies for a just and sustainable food system, endorsed by the ACRD, City of Port Alberni, Alberni Valley Social Planning Council, Alberni Valley Transition Town Society, ACRD Agricultural Development Committee.

Clayoquot Biosphere Region Food Action Plan (2010) and Community Food Survey (2009)

- Community survey gauging interest, taking stock, and assessing barriers to food security
- References a desire to establish more community gardens and increase access to seafood
- Cost was seen as a prohibitive factor to accessing healthy food
- Support for larger-scale agriculture was geared toward Alberni Valley producers
- Opportunities were noted for non-timber forest products and kelp
- Infrastructure needs noted for shellfish, seafood, and composting initiatives
- Most cited recommendations were to increase involvement with the local food system through food policy, local small-scale processing, and community greenhouses & gardens

Clayoquot Sound Biosphere Region's Vital Signs Report, 2018

- Biennial compilation of regional data and statistics

Coastal Addendum, Interim Report, 2018

- Introduced the coastal context and current situation; detailed findings and suggestions from public surveys and forums and process of vision development

Marine Culture Within the ACRD, 2016

- Summarizes marine production and related challenges and offers suggestions for support

West Coast Garden Guide

- Provides general tips and a month to month guide to growing vegetables in the region

Wild Salmon Advisory Report, 2018: Options for a Made in BC Wild Salmon Strategy

- Goal #3 offers strategies to protect and enhance the economic, social and cultural benefits that accrue to BC communities from wild salmon *and other seafood resources*

3) Questions of Scope

Funding and time limitations have made it difficult to capture all the nuanced and detailed information about marine and 'wild cultivated' or 'wild harvested' food sources in this study, however, the unique coastal context mandates their integration to some degree. Therefore, while the primary focus of the Coastal Addendum is traditional land-based agriculture, discussion and recommendations for these parallel systems are also included. These focus generally on the need for further study and policy developments which will help to bridge the silos within which these industries currently operate, in order to support their inclusion within an appropriate and wholistic coastal agricultural framework.

Prior studies have pointed out the need for strong social networks, community gardens, and backyard production as a requisite for coastal food security. This addendum focuses more primarily on the business opportunities, policy, and program innovations that may allow for the expansion of *commercial* agriculture. The unique coastal context, however, necessitates a unique and non-traditional approach. While successful enterprises may be smaller in scale and more cooperative in nature, they concurrently need to positively impact food production and be upwardly scaleable and financially sustainable.

There is very little existing agricultural data from Statistics Canada in the region and the Addendum does not offer a complete objective and numerical analysis of current production. To attempt this would be time consuming and require significant public participation. Some statistics relevant to marketing and food imports are available, however. For example, the amount of produce the Tofino-Ucluelet Culinary Guild (TUCG) imported to the region from Vancouver Island Farms increased from 40,000 lbs in 2014 to 114,000 lbs in 2017, and in 2018, a comparison of 10 healthy food items showed that food prices are 12% more expensive on the West Coast than in Port Alberni.

“We don’t think big enough. As much as we need to develop and promote small scale we need to also be identifying scalable opportunities to develop economically sustainable operations that add to the local economy and employment which will result in increased visibility of local food production and its fundamental importance.”

4) The Coastal Context

Governments

The coastal region of the ACRD includes 3 municipalities and 8 Nuu-Chah-Nulth governments and councils. The northern section includes the municipality of Tofino, the Hesquiaht First Nation, Ahousaht, and Tla-o-qui-aht First Nations. The Central portion includes the municipality of Ucluelet, Yuułuʔiłʔath, and the Toquaht Nation, and the Southern most portion includes the municipality of Bamfield and the Huu-ay-aht, Ditidaht, and Uchucklesaht First Nations. The total population is approximately 6400 people (Vital Signs, 2018).

Environment and Geography

The coastal geography, fragmented by marine areas and with shallow soils and rocky outcrops in many areas, does not offer the land base of more contemporary systems. Geographically, the area is remote and requires extensive land travel through a single mountain pass and/or significant boat travel to reach, limiting the ease of importing and exporting products and resources. Detailed information can be found within the Agrologist’s Report, page 22.

People

In 2006, 33% of coastal residents identified themselves as Aboriginal, compared to 8% on Vancouver Island and 6% in BC. Between 1996 and 2006 the percentage of workers in Agriculture, Forestry, Fishing, or Hunting dropped from 17% to 7% in the Clayoquot Sound Region (Vital Signs, 2018). The region sees upwards of one million tourists per year and experiences a high transient population of workers.

The coastal population has a strong food culture, with numerous food-related events and educational programs. Nuu-Chah-Nulth peoples have the right to harvest from parks within their territories, and food is a strong centrepiece in their traditional cultural practices. The many high-end restaurants regularly promote a unique west coast flavour and style. Generally high food prices and geographic isolation increase residents' interest in self-sufficiency.

Municipal and Nuu-Chah-Nulth governments and councils express support for food sovereignty and increased economic opportunities in agriculture. There are significant challenges related to food access and poverty. Between April 2014 and June 2017, the Food Bank on the Edge served over 6,000 clients and distributed over 100,000 lbs of food. On average, that translates to 2,600 lbs of food to 160 people per month. The number of food bank clients increased by 12% between 2015 and 2017 (Vital Signs, 2018).

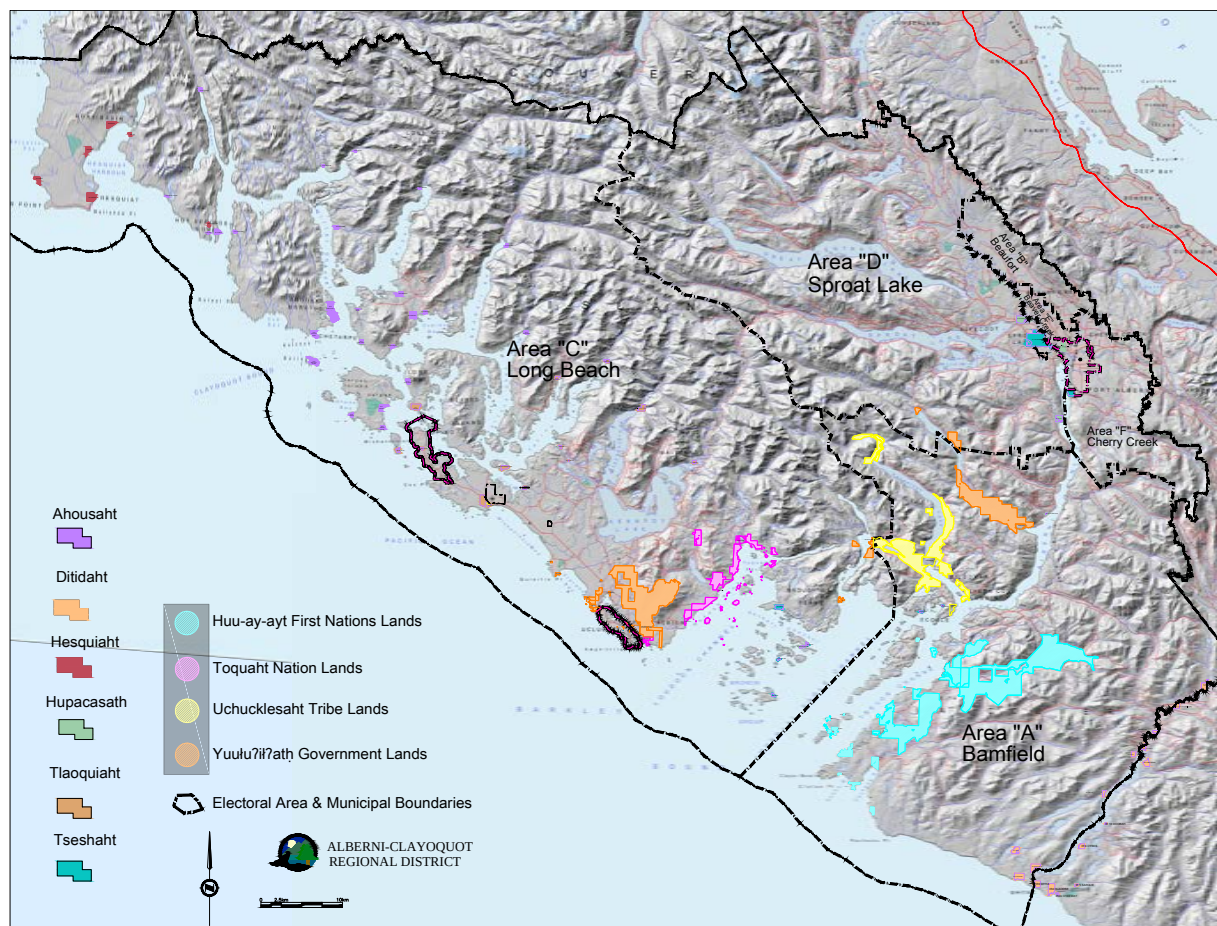


Figure 1: Topographical Map of ACRD with Community Overlay

Economy

Existing coastal food production operations, with the exception of those that are marine based, are generally very small scale, however the food industry is vibrant. Top restaurants and chefs charge premium prices, and many food processing operations have proven the market for niche products and local branding. Tourism is a huge economic driver and creates a market for high-end agricultural products. The largest area exports are forest and fish products (mostly cultured salmon), and the shellfish industry has strong presence and infrastructure.

Marine Culture

Integration of marine production into the Provincial agricultural framework is a trending opportunity, and marine production is vitally important within a coastal context. In 2017, the Islands Agriculture Show was held in Port Alberni and was the first to include aquaculture and seafood as part of its programming. Adjacent to the event, a sold-out boat tour of Barkley Sound helped participants to understand economic opportunities and challenges within the seafood sector. It included a stop at a fin fish site, oyster operation, and shellfish seed production facility.

Marine culture offers a significant economic opportunity to the ACRD's coastal regions. The waters are pristine, uncrowded, and less subject to some of the disease pressure afflicting growers on the East coast of Vancouver Island. A shellfish seed producer in Bamfield provides a key piece of infrastructure, and a number of farm tenures sit unused within Barkley Sound. The export market is strong, with significant governmental support, and many coastal products, like salmon, hake, and shellfish, are being sent directly overseas. While increases to commercial fishing of wild stock is limited due to reducing fish stocks, the creation of value-added initiatives for the current catch could increase its economic and employment benefits.

However, these opportunities are buffered by a number of challenges. Marine farms are extremely remote and challenging to staff. The export market requires expensive automation and a secure labor force to produce large quantities efficiently and with regular supply. Loans are high-interest and difficult to secure, and concurrently, marine leases are expensive but can't be used as collateral. There is regulatory overlap between Federal and Provincial governments, and marine culture is not generally funded or considered within the Province's agricultural framework. Atlantic Canada has access to Federal funding programs for aquaculture that BC doesn't, which creates a competitive disadvantage and reduces access to larger markets.

Producers report that they are going around in circles trying to secure funding, expertise, and equipment to start or enhance operations, even though the tenures, markets, and processing facilities exist. From their perspective, it is more challenging to increase the local market than to tap into the export market, as changes to the local market require that people want a lot of something they don't currently want (e.g. oysters). A strong Buy-BC and promotional program via governmental initiatives, local menus, and store promotions and highlights would be helpful, but it is not something that can be easily achieved at the producer level alone.

Other opportunities include an increase in local processing facilities, which might significantly contribute to employment and development of local markets. Currently, many products need to be shipped out of region and then re-imported in order to be sold. The public consistently notes frustration at their inability to easily purchase fresh marine products from the docks or direct from producers. Marine products and byproducts like kelp and offal could also be valuable local inputs for soil-based agricultural operations. Finally, introducing employment opportunities that keep people working on the water reinforces the traditional livelihoods and culture of the region and enhances appreciation and stewardship for sensitive coastal habitats.

“We must find a way to develop an economically important use for our coast line or we will lose it to oil and gas. This is already happening up and down the coast.”

Forest Harvesting

Aboriginal peoples recognize that traditionally, all land was cared for and that there was no concept of 'wilderness'. In fact, many so-called 'wild foods' are disappearing because they are not being cared for. However, practices remain that involve gathering food and other products from areas that have not been agriculturally cultivated in a contemporary manner. These practices are a vital component of coastal culture and contribute to ongoing care and stewardship of the region's ecosystems and the health and wellbeing of its people.

Language is a challenge when addressing this subject. A reflection on the terms used offers the opportunity to engage in socially important conversations and creates a space for vitally important indigenous perspective and involvement. Is 'wild harvesting' better stated as 'foraging for food you didn't plant'? We must acknowledge and respect that the earth's production of food and products that support human well-being is an integral part of her nature. Humans have a mutually impactful relationship with the earth, and her gifts to us are dependent on our care and nurturance of her.

There are practices which align more closely with indigenous harvesting practices than does contemporary agriculture. Permaculture (permanent agriculture) design concepts, such as food forests, focus on providing for human needs while regenerating depleted environments and creating self-sustaining systems with reduced need for human interference. In considering how to incorporate 'non-timber forest products' (NTFP) into agricultural practices, the emphasis could be on teaching people to get to know the land and tending it in a way that it enhances and regenerates its products. Coastal stakeholders have noted the urgency of regulatory frameworks and guidelines for NTFP harvesting practices, in order to ensure their sustainability. NTFPs, in turn, may offer diverse economic and social benefits for forest and agricultural stakeholders.

The line between 'agriculture' and native or 'wild' foods becomes even more blurred when questions or interest is raised about the development of commercial operations on private lands through the tending and harvest of native berries, mushrooms, and shoreline products. Within the Provincial agricultural framework, this type of operation is borderline. For example, when applying for Farm Property Tax Status, areas in a 'natural' state but covered with native berries are not considered 'cultivated' or eligible for inclusion when calculating applicability in most circumstances. At the same time, harvest and marketing of native berries could be a strong and lucrative niche market for an agricultural producer.

If the goal of the Coastal Addendum is to support appropriate and long term food production avenues on the coast, the western concept of agriculture must be bridged and linked with tradition, conservation, and environment in order to be relevant. Nuuchah-Nulth people are vital to this endeavour, particularly because of the many agricultural grant opportunities available to them. New 'agricultural' projects could benefit them on many levels, including income, a fostered cultural identity and transfer of knowledge, increased access to culturally appropriate food, employment, and development of new and innovative systems for food production, harvesting, and environmental management.

"Food is very much a cultural matter, and food sustainability will be as much about cultural change as growing plants"

5) Summary of Open House Discussions and Survey Data

For full accounting of public and stakeholder feedback, please see the [Interim Report](#).

Perception of Agriculture on the Coast

- Strong focus on marine resources, ‘wild harvesting’, supportive community organizations

Markets or Market Opportunities

- References to weekly public markets, grocery-type stores, restaurants, food trucks, TUCG, school lunch programs, intra- or inter-community trading, students at the Bamfield Marine Science Centre, direct fish sales from the wharf, and Community Supportive Agriculture

“Everything that can be grown here can be sold here”

Supportive Organizations

- Most recognizable were Tofino-Ucluleet Culinary Guild (TUCG), Tofino Community Food Initiative (TCFI), Ucluleet Local Food Society (ULFS), and Clayoquot Biosphere Trust (CBT)
- Also noted were grocery stores/markets, industry associations (shellfish growers and Farmers’ Institutes), municipal/regional governmental bodies, producers/processors, Food Bank on the Edge, Tofino Botanical Gardens, and Westcoast Community Resources Society

Opportunities

- Strong references to oyster, shellfish, and marine industries and to forest products or a related niche and branding
- Also noted were hydroponics, aquaponics, greenhouse growing, community gardens, small, bio-intensive mixed operations, poultry operations, bees, mushrooms, salad greens, winter produce, semi-tropical crops, hemp, sea salt, and cannabis
- Agriculture generally perceived to benefit overall food security and environmental stewardship and offer employment, educational, and therapeutic opportunities
- Community composting initiatives were seen as beneficial and desirable
- Community planning processes that included food production spaces within neighbourhoods were seen as a way to increase production potential and foster community
- Coastal assets included the long growing season, thriving food scene, high tourist population, lack of competition, abundance of land, and existing markets.
- Tugwell Field on Forbes Road in Ucluleet was noted multiple times as a public land space on high ground that could be used as an agricultural production and support space

“Transitioning what have been local wild harvest products to cultivation and more concentrated production. Expanding the range of foods cultivated in and harvested from the sea.”

Resources

- Available resources noted included land and water (fresh and salt), wild foods, seaweed, knowledgeable growers, educational events, high-caliber chefs, a supportive restaurant scene, traditional knowledge, and elders
- Infrastructure included a variety of market avenues, a plant nursery and botanical garden, TUCG, fish/ice plants, a shellfish seed production facility, and supportive non-profits
- Human resources included an able work-force, high level of entrepreneurship, community spirit, and strong support for local food.

Values and Agriculture

- *Human* (food self-sufficiency, social networks, access to food, and emergency preparedness), *Environmental* (stewardship and fostering connection to the natural world), and *Economic* (supporting local producers, local jobs, and economic development) benefits equally valued
- Numerous people pointed to the importance of teaching dietary health, food growing skills, resource-sharing, self-reliance, and the pleasurable aspects of growing food.

“A diverse, energetic and creative population who tend to be focussed on health and the natural environment. And a strong entrepreneurial streak.”

Challenges to Coastal Agriculture

Environmental:

- Weather (low light levels and precipitation/humidity) and soil conditions (salinity)
- Insect and wildlife concerns
- Access to fresh water in the dry season and limitations in soil quantity and quality
- Geographic isolation
 - Difficulties in importing supplies (hay, feed, soil, and other) and exporting products
 - Rough and single highways (Hwy 4 in the North/Central, and the Bamfield Road in the South) which are subject to routine delays, construction, and closures
 - Long transport time, especially where refrigerated trucking is required
 - High cost and limitations of boat transportation

“Urban spaces will be very small scale and not likely a significant contributor to agricultural production.”

Human:

- Transient population
- High cost of living and lack of housing
- Lack of skilled labor and expertise
- Fluctuations in labour market between high and low seasons
- A “lack of vision” in terms of creating scaleable opportunities rather than small, micro operations that were seen by some as unsustainable
- “People just don’t care”

Financial and Economic:

- High land costs and lack of large parcels or parcels within the Agricultural Land Reserve
 - One 10.5 acre farm property is currently for sale for \$938,000
 - While land sharing was seen as an option, there are concerns about logistical arrangements and relationship challenges leading to operational demise
- Income thresholds for Farm property tax status seen as too high on properties less than 2 acres
- Lack of start-up capital and infrastructure (greenhouses, etc.) or machinery
- Regulatory hurdles within the marine industry and in livestock processing sectors
- Global industrial agriculture and ‘cheap food’ reducing viability of smaller-scale production
- Lack of manure and compost as barriers to soil fertility and productivity

- Small, private businesses are often not eligible for grants or low-interest loan
- It is very expensive to live in the coastal communities
- Hard to find markets in winter, but can't pull back because of the overall costs of business (high rents for example)

“The visitor economy is competing for land & labour. This will be an expensive and therefore niche area for agricultural production.”

6) Overview of Existing Initiatives

Non-profit and Community Organizations

The Tofino Community Food Initiative (TCFI) and Ucluelet Local Food Society (ULFS) are non-profit organizations in operation since about 2009. Both are well known for their support of food and agriculture related events, workshops, and programs. The TCFI has facilitated logistics that allow coastal residents and Alberni farmers to sell extra produce at their Public Market booth. The ULFS conducted food security research projects in 2009/2010 and recently lobbied for and successfully established a new community garden.

Eat West Coast is a regional food security initiative of the Clayoquot Biosphere Trust (CBT). They are a member of Island Food Hubs, a collective of organizations working together to address food issues across Vancouver Island. Eat West Coast focuses on regional resilience and community building, through support of supports access to healthy, affordable, and local foods, with a particular emphasis on outreach, planning, and support for schools and Nuuchahnulth communities.. The Nuuchahnulth philosophy of *iisaak* (living respectfully) is a recurring theme in EWC's work, highlighting the important connections between food, the environment from which it comes, the people who eat it, and the systems of which they are a part. CBT also collates regional data and publishes the annual “Vital Signs Report”.

The Tofino-Ucluelet Culinary Guild (TUCG) supports the distribution and access of healthy Vancouver Island food products by acting as a buying and transportation agent. They support small scale growers and shape the food available commercially in the coastal market. Members include Island farmers, foragers and fishermen, as well as restaurants, grocery outlets, and residents. The program now includes Community Supported Agriculture (CSA) weekly food boxes and market stands at the weekly public markets on the coast.

Business

Other businesses and organizations offer various levels of support to coastal agriculture. Ordinary Corner Nursery (OCN) in Tofino shares knowledge while selling plants and garden supplies. The Tofino Botanical Gardens offer daily public access to a 12 acre interpretive site, which demonstrates the successful cultivation of a variety of native and cultivated plants in the coastal temperate rainforest. Tofino Urban Farm Co. currently operates a small compost pick-up, processing, and redistribution program for Tofino residents and businesses.

A number of primary processors are tapping into the local food market and seeking local inputs. Products range from beer and spirits to cured meats, preserves, popsicles, kombucha, breads, kelp products, and even soaps and shampoos that utilize primary agricultural products.

Soil-based producers run very small operations generally, ranging from about 0.2 cultivated acres to the 8 hectare off-grid Medicine Farm. Many backyard farmer/gardeners have committed buyers for their products as well. Products reported include micro-greens, vegetables, eggs, fruits, rabbits, chickens, and pork. Clayoquot Organics, which shut down in 2005, offers a snapshot of what is possible for a small-scale intensive vegetable producer, having sold \$60,000 of vegetables and employed 2.5 people in their last year of business in Tofino.

	Challenges	Opportunities	Existing Resources
Ecological 	High level of humidity and precipitation for growing	Temperate climate with long growing season	Compost building through the Tofino Urban Farm Co.
	Limitations on soil quantity and quality and lack of compost	Small scale, intensive vegetable	Abundance of compost fodder (food & fish waste, seaweeds)
	Summer droughts	Unique bioregional crops and value-added products	Rainwater abundance
Economic 	Expensive property Very high cost of living	Entrepreneurial and innovative population	Strong commercial and community distribution network with the Tofino Ucluelet Culinary Guild
	Lack of relevant skilled labour	Many small-scale producers with collective potential	Grower resources in the OCN Garden Centre and Tofino Botanical Gardens
	Lack of start-up capital and infrastructure	Active tourism industry and strong international shellfish market	Strong processing industry and market
Community 	Remote and isolated with high transportation costs within and outside of the region	Regular educational opportunities and food-related events and festivals	Facilitation and coordination support through Eat West Coast, the Clayoquot Biosphere Trust's food hub
	Unstable transient workforce due to lack of housing	Strong restaurant culture and high-calibre chefs	Supportive organizations including the Tofino Community Food Initiative and the Ucluelet Local Food Society
	Competitive seasonal job market	Interested consumers	Businesses offering plots or land for production
Regulations 	Regulatory hurdles and barriers	Marine infrastructure	Regional Agricultural Support Workers as link to Provincial Government
	Silos between agriculture, marine, forest, and environmental industries	Class 'E' Slaughter facilities	Interested and supportive municipal governments

Infographic by: Erika Goldt, CBT

Local Governments: Policies and Projects

Ahousaht

- Cranberry production operation with local and Vancouver Island sales
- School and community gardens in Ahousaht, a boat-accessible community of about 1100
- Significant interest in more community gardening; the current garden has not always been widely accessible and consistently supported

Alberni-Clayoquot Regional District (ACRD)

- Continues to work towards implementation of the Alberni Valley Agriculture Plan through its Agricultural Development Committee and Agricultural Support Workers
- Requests for support from coastal stakeholders and the lack of reference to coastal communities in the Alberni Agriculture Plan were catalysts for this Coastal Addendum

Bamfield Electoral Area

- Bamfield Community Plan includes an agricultural section where the production of food for personal consumption, particularly through innovative techniques, and the protection of water for agriculture are encouraged.
- Established community garden and school gardens

District of Tofino:

- Updating Official Community Plan (OCP) in 2019
- Completing a Flood Mapping Project and Emergency Preparedness initiatives
- Has provided funding support to TCFI for food related events and programs
- Sees opportunity for more backyard gardening, chickens, bees, small scale and personal production opportunities (Manager of Sustainability)
- Vision to Action Sustainability Plan: that the “community has a opportunity to grow or buy local food”
- OCP 3.3.1: “community development to promote local food economy”
- Recently allowed public landscaping to incorporate edible foods

District of Ucluelet

- Currently in 2nd draft stage of updating OCP
- Food security, health, vulnerability to natural disasters/isolation, and development of community culture are of interest (Manager of Planning)
- Supported community garden development on District property in 2017
- In partnership with Toquaht First Nation in management of Barkley Community Forest
- Human-Bear Conflict Management Plan (2006) places strong emphasis in reducing attractants and may necessitate strong oversight and management of agricultural developments such as composting, apiaries, and livestock flocks.

Ditidath Nation

- Partner in Nuu-Chah-Nuulth Seafood Corporation and St. Jean’s Cannery
- Extensive land base and tourism focused economic development
- Currently exploring feasibility of land-based aquaculture

Hesquiaht First Nation

- Very remote, boat access only
- Community garden and community kitchen
- Challenges with availability of water

Huu-ay-aht First Nation

- Substantial community garden at Anacla since about 2016
- History of Food Box Programs

Tla-o-qui-aht First Nations

- Community Garden at Ty-Histanis, funded through a Heart and Stroke/First Nations Food System grant
- Has jurisdiction over large land parcels outside Ty-Histanis and past Kennedy lake
- Agriculture does not fall under a particular governmental department, and much of the food related work is done through health and social development
- Some residential gardening initiatives undertaken at Opitsaht, with support from the CBT

Toquaht Nation

- Recently underwent new community and land zoning plan for Macoah, but unclear as to how agricultural development could align
- Very large garden at Macoah but struggling with finding people to take care of it
- Past apiary project, funded through a grant
- One challenge is the distance and transportation to a convenient market.

Uchucklesaht First Nation

- Expressed interest in the development of a community garden

Yuułuʔiłʔatḥ (Ucluelet)

- Interest in further agricultural development at their community garden at Wya Point and land at Lost Shoe Creek
- Commercial kitchen at Hitacu being used for preserving workshops
- Community garden at Hitacu

7) Regulations and Frameworks

Agricultural Land Reserve (ALR)

The Agricultural Land Reserve is a provincial zone subject to the Agricultural Land Commission Act, where land use is restricted to farm use except by requested exemption. Its mandate includes the preservation of agricultural land, encouragement of farming, and assurance that local bylaws are compatible with agriculture. The Act takes precedence over most other Provincial Legislation and local government bylaws, providing significant protection for the Province's agricultural land base. There is no ALR land in the ACRD's coastal regions.

A Ministry of Agriculture Advisory Committee recently reviewed the ALR and ALC and new parliamentary legislation was passed in November, 2018.

More info at: <https://www.alc.gov.bc.ca/alc/content/home>

Compost

The Organic Matter Recycling Regulation of B.C. (OMRR) governs the construction and operation of compost facilities, and the production, distribution, storage, sale and use of biosolids and compost. It is currently undergoing a review.

The District of Tofino has completed studies with regards to community composting initiatives. Primary challenges noted were a purported lack of 'brown' or carbon material in the region and questionable economic feasibility of door-to-door pickup. In 2018, the ACRD received a \$6 million grant for development of an organics diversion program to reduce the amount of waste going to landfill. This grant could cover 100% of cost of capital infrastructure but not operating costs. The ACRD has hired a contractor to undertake a preliminary project researching cost-benefits service options for the collection and processing of organic waste in the sub-regional areas of the Alberni Valley, West Coast, and Bamfield, with reporting expected in early 2019.

The govt of BC highlights some case studies for multi-family organics handling on their website: <https://www2.gov.bc.ca/gov/content/environment/waste-management/food-and-organic-waste/organic-waste-diversion/residential-organic-waste-diversion>

Farm / Food Land Trusts

Community Farm Land Trusts (CFT) are generally charitable or non-profit organizations with a mandate to preserve land for food production and agriculture. Commonly, they are established via donation, public fundraising, or local government initiatives. These trusts are an important avenue for preserving farmland at the local or regional level.

The term Foodland has been coined to include areas that support traditional indigenous harvesting and may include marine areas, shorelines, and other areas which provide food outside of traditional agricultural methods. A Foodland could therefore be almost any parcel of land, provided its management's primary focus is on the provision of food.

More info at: https://www.farmfolkcitcityfolk.ca/PDFs_& Docs/CFPdocs/FLT_web.pdf

Food Safety

Food safety issues are regulated by the Canadian Food Inspection Agency, the BC Health Act, and the BC Food Safety Act. The various regulations include topics such as packaging and labelling, product and facility inspections, processing methods, and where food can be sold. Good Agriculture Practices (GAP) is a national program which offers a certification system for farmers for their production and handling of agricultural products.

Generally, fruit and vegetables should be washed in fresh, potable water and stored or packaged in clean containers, but otherwise there are no food safety regulations pertaining to their sale at Farm Gate. Restaurants should additionally ensure that there is a suitable means of traceability. All producers or food sellers are encouraged to have Food Safe and/or Market Safe Certification. Island Health governs the sale of food at Temporary Markets (ie: Farmers' Markets). Under their regulations 'low risk foods' can be prepared in a home kitchen and sold at these markets, but 'high-risk foods' must be produced in an approved food premise. High risk foods may need to be tested in a lab.

Food Safety Legislation: <https://www2.gov.bc.ca/gov/content/health/keeping-bc-healthy-safe/food-safety/food-safety-legislation>

Good Agricultural Practices: <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/food-safety/good-agricultural-practices>

Guidelines for the Sale of Food at Temporary Markets: [http://www.bcfarmersmarket.org/sites/default/files/files/Guidelines%20-%20Sale%20of%20Foods%20at%20Temporary%20Food%20Markets_current\(1\).pdf](http://www.bcfarmersmarket.org/sites/default/files/files/Guidelines%20-%20Sale%20of%20Foods%20at%20Temporary%20Food%20Markets_current(1).pdf)

Food Safety for Marketing (basics) pgs. 92-100: <http://cowichangreencommunity.org/wp-content/uploads/2014/05/Growing-Connection-Handbook.pdf>

Meat Inspection Regulations

Under the Provincial Meat Inspection Regulations, all meat sold for human consumption must be slaughtered in a licensed facility. There are currently 4 classes of license. In Class A or B facilities, unlimited numbers of animals can be slaughtered annually, each carcass is inspected, and the meat can be sold throughout BC. In Class D or E facilities, limited numbers of animal can be slaughtered on-farm, inspections are done periodically on the facility (instead of individual carcasses), and sales are restricted to the Regional District where they are produced. Class D license holders can slaughter other producers' animals, but Class E holders can only slaughter their own, which limits their usefulness in servicing a small community.

Class D licenses are only permitted in '*Designated Regions*', and Class E licenses are unlikely to be issued where a Class A or B facility is within about 2 hours of travel time. There is a Class A facility for Poultry in Port Alberni. The closest Class A or B facilities for Red Meat (pork, beef, rabbit, other) are in the Courtenay and Nanaimo areas.

The Alberni-Clayoquot Regional District (ACRD) is not a '*Designated Region*' under the Meat Inspection Regulations, however the ACRD did submit a formal Request for Designation to the Province in 2017 and is awaiting a formal response. The Select Standing Committee on Agriculture, Fish and Food conducted a review of the Meat Inspection Regulations and published recommendations in Fall 2018.

More info at: <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/food-safety/meat-inspection-licensing>

Non-Timber Forest Products

Non-Timber Forest Products (NTFP) is a general term used for the plant and fungal resources that are harvested from forested areas (with the exception of timber products). There is a long history of Nuu-Chah-Nulth relationships with these products and a notable level of interest in their management, harvest, trade, and sale within coastal regions. There are also concerns being raised around the sustainability of harvest methods and the public's lack of following traditional protocols for their harvest. There is limited regulatory framework around the harvest of NTFP, and they are not considered agricultural products within Provincial frameworks.

The Barkley Community Forest (BCF), 6700 hectares next to Maggie Lake, is jointly owned by the District of Ucluelet and Toquaht Nation. Without clear regulatory frameworks, the BCF is

limited in its ability to manage harvesters and NTFP resources. However, its Management Plan Strategy includes recommendation 6.8.3: “Facilitate collaboration and partnerships to provide opportunity for NTFP resource demonstration projects, harvesting training, applied research opportunities for industry sector businesses and academic institutions, and public education.”

http://ruralnetwork.royalroads.ca/sites/default/files/tools_resources/111.pdf

Provincial Farm Property Tax Classification

Land may be classified as *Farm Class* under BC Assessment’s Assessment Act, resulting in reduced property taxation and the potential for other benefits such as certain Provincial Sales Tax exemptions and the use of marked gas in farm vehicles.

The following land may qualify for Farm Class upon application:

- a) Land used for a qualifying agricultural use;
- b) Land used for purposes that contribute to a qualifying agricultural use (e.g., irrigation, access to farm outbuildings, shelter belts);
- c) Land used for a farmer’s dwelling;
- d) Land in an agricultural land reserve (ALR) that is used for a retired farmer’s dwelling;
- e) Land used for the training and boarding of horses when operated in conjunction with horse rearing; and
- f) In some cases, vacant land associated with a farm.

The following minimum income requirements apply:

- a) \$10,000 on land less than .8 hectares (1.98 acres);
- b) \$2,500 on land between .8 hectares (1.98 acres) and 4 hectares (10 acres);
- c) On land larger than 4 hectares (10 acres), \$2,500 plus five per cent of the value of any farm land in excess of 4 hectares;
- d) \$10,000, in order to qualify unused land where the area in production by the owner makes up at least 25 per cent of the portion of the parcel outside the ALR. Some sales of qualifying agricultural products must occur every year.

References to land size generally refers to cultivated areas, not property sizes. There are some provisions for new and developing farms. Land leased to a farmer may also qualify, provided it is more than 2 acres if outside of the ALR. There is no minimum land leasing size if it is within the ALR. Non-Timber Forest Products are not listed as a qualifying agricultural use.

More info at: <https://info.bcassessment.ca/Services-products/property-classes-and-exemptions/farm-land-assessment/farm-classification-in-british-columbia/Apply-for-farm-classification>

Rainwater Harvesting

Surface and groundwater in BC is governed through the Water Sustainability Act. Many communities have begun to offer rebates for installation of Rainwater Harvesting (RWH) systems, in order to improve storage resources for the copious amounts of water delivered in the rainy seasons. There are various regulatory frameworks for water quality as it relates to agriculture, for example, final rinsing of produce must be from a clean and tested source.

In 2017, the ACRD completed an Agricultural Use of Water project, which aimed to provide tangible supports to agricultural producers for this primary production requirement. Final deliverables included development of a series of educational brochures and recommendations for RWH rebates for commercial and residential producers. The District of Tofino ran a pilot RWH rebate project in 2017, but it was not continued in 2018. Ahousaht experienced a water-supply crisis in Fall of 2018.

Water Licensing and Rights: <https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights>

Rainwater Harvesting, Best Practices: <http://rdn.bc.ca/events/attachments/evID6235evattID1344.pdf>

Water for Growth: <https://www.acrd.bc.ca/cms/wpattachments/wpID254atID2631.pdf>

Seaweed and Kelp Harvesting

The Fish and Seafood Licensing Regulations outline requirements for harvest of wild aquatic plants. In short, individuals harvesting for their own personal use can collect up to 100kg without a license, but they must minimize impacts to the plants and environment. A Wild Aquatic Plant Harvester License must be obtained in order to collect over 100 kg. This involves an application process, and where successful, formal record keeping and payment of royalties.

More at: <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/fisheries-and-aquaculture/commercial-fisheries/aquatic-plant-harvesting>



Infographic by: Erika Goldt, CBT

Section 2: Agrologist's Report

Hannah Roessler, a professional agrologist and ethnobotanist, was contracted to to conduct physical site assessments and to offer suggestions for potential opportunities for development of agronomic capability within the region.

Hannah's work and research focuses on agro-ecology, permaculture, medicine and food plants, and indigenous land-management and cultivation techniques. She is deeply involved in community engagement through all of her work. She has been a popular lecturer in the Environmental Studies department at the University of Victoria for the past three years and currently teaches upper-level, in-class, as well as field-based, courses in Ethnobotany, Ethnoecology and Permaculture Design. At Pacific Rim College, she is the Dean and developer of the year long Permaculture Design and Resilient Ecosystems Diploma. She also teaches at the Horticulture Center of the Pacific and OUR Ecovillage.

Hannah consults on a variety of food and medicine-plant projects, ranging from urban community gardens and small-acre permaculture designs, to eco-cultural restoration in remote Indigenous communities. She has co-developed and carried out culturally appropriate curriculum, based on ethnobotany, ethnoecology and food security, with several First Nations around BC. She is also currently working as a research consultant to the University of Victoria to connect First Nations governments and councils to more culturally appropriate, land-based learning opportunities that are focused on food systems and ecological restoration.

Her report follows.

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1) Overview of Tofino and Ucluelet Region

The general ecology of Tofino and Ucluelet can be described via the biogeoclimatic zone designation of Coastal Western Hemlock (CWH - biogeoclimatic zone designation), and is a Hypermaritime Subzone (CWHvm). There are various species, as well as species associations, that are typical of this subzone¹. The soils on Vancouver Island are generally categorized as Podzolic soils. These are soils that are typically found where the mean annual precipitation is above 700mm, and are dominated by coniferous plant communities.

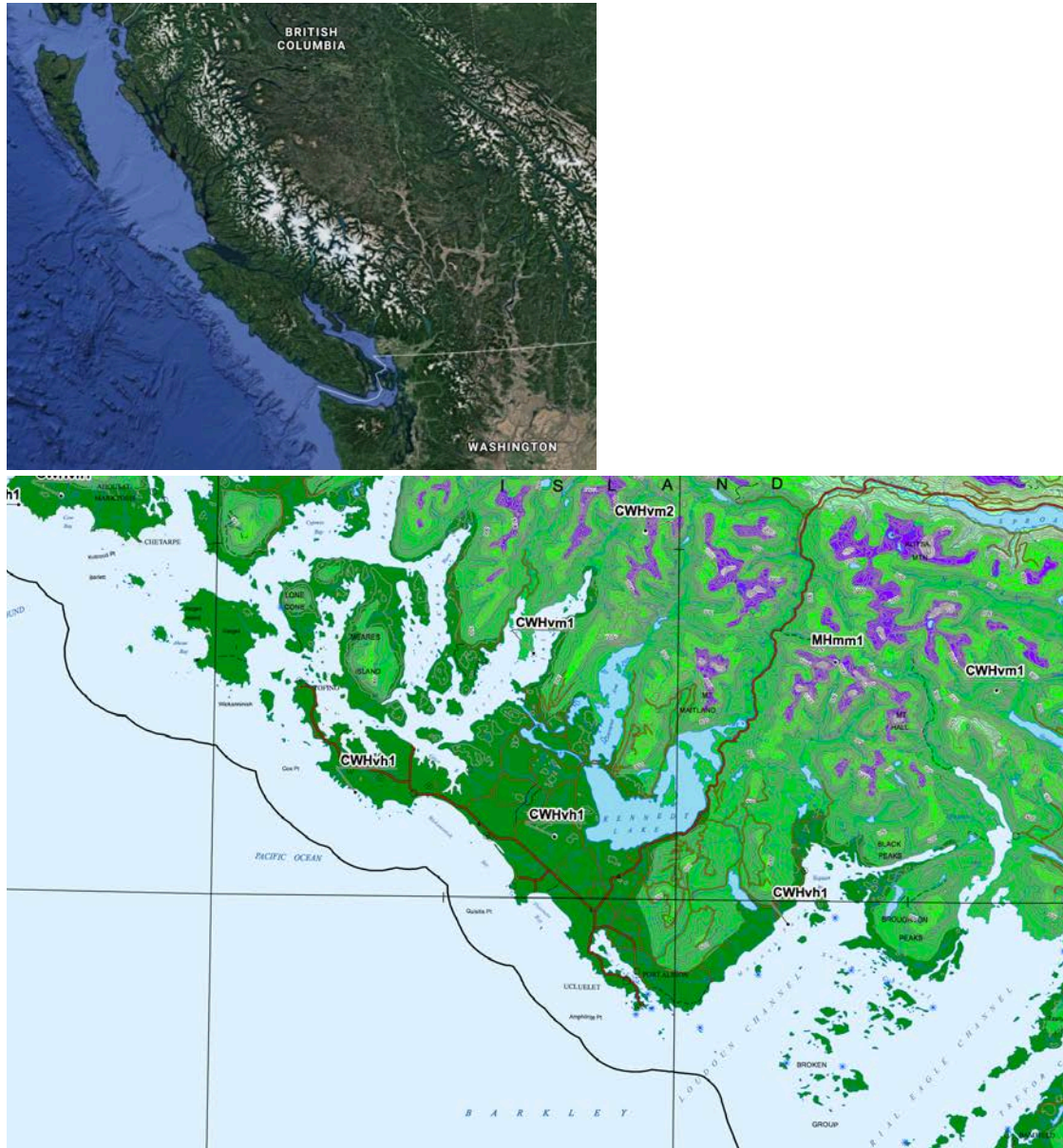


Figure 1.0 Reference area, West Coast of Vancouver Island, British Columbia

Figure 2.0 Biogeoclimatic zone of the Tofino and Ucluelet regions

¹ Details of this subzone can be found here: <http://web.uvic.ca/~starzom/chap6-coastalBC.pdf>

The climate of a region will often dictate the type, approach, and intensity of an agricultural method, and this region has some unique climatic characteristics, which will manifest in varying benefits and drawbacks for growers. Some climate data that for this region is summarized in bullet points and charts below:

- Daily average temp is 9.1 throughout the year
- Average maximum temp is 12.8 degrees celsius
- Average minimum temp is 5.4 degrees Celsius
- Average rainfall in a year is 3257.4 mm (10.7 feet in one year!)
- Snowfall occurs from October to April, with an average yearly snowfall of 42.8 cm (1.4 ft)

The regions of Tofino and Ucluelet are home to a relatively mild climate throughout the year, with very few days dropping below zero degrees. It does not reach significantly high temperatures either, with an “extreme maximum” temperature being recorded at 32.8 degrees Celsius in 1981. This climate is ideal for growing a variety of cool season crops (particularly vegetables in the brassica family, such as kale), but is not ideal for crops that require high heat and a longer growing season. The other aspect of this particular region that creates some challenges is the rainfall, both in amount and timing. There is an abundant of rain during the winter months, while the summer months can usher in significant drought, with resultant water restrictions. These extremes between an abundance of water and a lack of water can be challenging when trying to grow vegetables and fruits.

WEATHER PATTERNS FROM THE REGION

1971 to 2000 Canadian Climate Normals station data

Temperature													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Daily Average (°C)	4.5	5.3	6.0	7.7	10.2	12.4	14.4	14.8	13.3	9.8	6.6	4.7	9.1
Standard Deviation	1.6	1.4	1.2	1.0	1.0	0.9	0.8	0.8	1.0	0.9	1.5	1.5	0.6
Daily Maximum (°C)	7.6	8.6	9.7	11.6	14.3	16.3	18.5	18.8	17.7	13.5	9.8	7.8	12.8
Daily Minimum (°C)	1.4	1.9	2.3	3.7	6.2	8.6	10.2	10.6	8.9	6.0	3.3	1.7	5.4
Extreme Maximum (°C)	20.1	18.9	18.3	22.8	27.6	32.2	32.8	32.8	29.4	23.9	21.1	15.6	
Date (yyyy/dd)	1986/ 12	1963/ 07	1965/ 09	1989/ 25	1985/ 16	1944/ 09	1961/ 12	1981/ 08	1963/ 09	1945/ 07	1970/ 03	1969/ 02	
Extreme Minimum (°C)	-15.0	-9.2	-5.5	-1.7	-0.2	2.2	3.9	4.4	-0.6	-3.5	-12.7	-12.2	
Date (yyyy/dd)	1969/ 30	1989/ 02	1989/ 02	1968/ 12	1988/ 04	1976/ 03	1971/ 02	1973/ 18	1972/ 27	1984/ 31	1985/ 29	1968/ 28	

1971 to 2000 Canadian Climate Normals station data

Precipitation													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Rainfall (mm)	422.5	370.8	346.8	247.4	165.3	137.9	76.8	93.9	133.5	340.2	471.2	451.3	3257.4
Snowfall (cm)	12.1	9.6	6.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	3.4	9.9	42.8
Precipitation (mm)	435.6	381.8	355.1	248.9	165.3	137.9	76.8	93.9	133.5	340.2	474.9	462.0	3305.9

2) Initial Site Surveys and Results

Initial site surveys were conducted between the 10th-15th of May 2018, with follow up visits over two days (28th and 29th) in October of the same year. Each site visit was approximately 1.5-2hrs long. The surveys consisted of both interviews with land owners/stakeholders, and an overview examination of the physical site. The surveys consisted of a quick perimeter walk of the parcel, as well as transect lines across the property. An initial, basic vegetation survey was undertaken via observation and recording of plant types. Several soil samples were taken at each site, to get a preliminary sense of soil structure and composition.

The initial site visits consisted of eight different sites. Prior to the second field visit, the preliminary data was reviewed and the site selections were narrowed down to three sites, in order to examine them as case studies. These are further detailed further on in this report.



Figure 3.0 Site survey locations

Table 1.0: Site Surveys, May 2018

Site	Name	Size	*Soil Types	Observations	Hopes for the site
#1	District of Tofino	1.6 acre park in residential subdivision, cleared and levelled	Sarita Soils 20% Hankin Soils 80%	Compacted Poor drainage in some areas Mostly grass and other species	Site for community garden beds or individual plots
#2	Dan & Jennifer Price-Francis	1.5 acres	Vargas Soils 60% Kennedy Lake Soils 40%	Container beds with purchased soils	Continued expansion of growing vegetables to sell for market
#3	Michael Poole, Poole's Land	17.5 acres, mostly old growth, 2 acres of gardens over multiple locations	Vargas Soils 60% Kennedy Lake Soils 40%	Various raised beds A variety of vegetables growing with various success	The land will soon be sold, but the hope is to continue growing food on it, mixed use with camping
#4	Tom Greig	37 acres total, 4-5 in farm status (hens, meat birds, veggies)	80% Kennedy Lake 20% Vargas	Majority of land is in pasture Beds are growing variety of vegetables successfully	Continue current operations
#5	Tofino Urban Farm Co. Airport Land	1/4-2 acres, potential lease from ACRD	Vargas Soils 100%	Mostly alder on compacted ground Very sandy and gravelly	Composting facility to serve the community need for compost
#6	Ucluelet First Nation Junction Garden	5 acres, some buildings	Sandhill Soil 100%	Cultivated garden site where soils have been built over time. Compost, manure and soil are purchased.	Continued garden use as well as a outdoor eating area
#7	Ucluelet First Nation Lost Shoe Creek	14 acres raw land	Sandhill Soil 100%	Very sandy soil Sparse vegetation, but includes some large trees	Aquaponics operation and market front There is also a desire for all 8 communities to be growing their own food (Octopus Garden).
#8	Medicine Farm	8 hectares, working farm http://medicinefarms.com	Hankin Soils 80% Sarita Soils 20%	A lot of vegetables and herbs Many (60+ trucks) loads of soil brought in years ago	Continued growth of veggies for coastal markets

* See table below

Table 1.1: Description of Soil Types

Sarita Soils	
-	Moderately well drained
-	Gravelly sandy loam to gravelly loam texture
-	Subsoil is usually gravelly sandy loam
-	Significant coarse fragments
Sandhill Soil	
-	Imperfectly drained
-	Gravelly, sandy loam/loamy sand texture at surface
-	Significant coarse fragments
Vargas Soil	
-	Moderately to well drained
-	Loamy sand or sandy loam texture at surface
-	At depth, fine sand
-	Not many coarse fragments
Kennedy Lake Soil	
-	Moderately well drained
-	Silty clay loam or silt loam texture
-	Can be more clay at depth
-	Generally free of coarse fragments
Hankin Soils	
-	Well drained
-	Gravelly loam or gravelly silt loam texture
-	Subsoil is gravelly sandy loam
-	Significant coarse fragments

Source: http://www.env.gov.bc.ca/esd/distdata/ecosystems/Soils_Reports/bc44_report.pdf

INITIAL SURVEY RESULTS

List of some of the crops that are currently grown in Tofino:

While it may often be assumed that “very little” can be grown in the region, there are examples of crops currently growing that shows that food production in the region is certainly feasible. The crops that were most commonly cited as “growing really well” were Kale and Garlic. Below is a list of crops being grown by those interviewed for this report:

- | | | |
|-----------|------------------|----------------|
| • Kale | • Edible flowers | • Basil |
| • Spinach | • Mustard greens | • Salad Greens |
| • Parsley | • Berries | • Asparagus |
| • Mint | • Onions | • Tomatoes |
| • Plums | • Potatoes | • Kiwis |
| • Figs | • Bok Choi | • Parsnips |
| • Peppers | • Mushrooms | • Valerian |

Key Themes (From advisory meeting and site surveys, May 2018)Economic

- The market for produce is strong: “everything that can be grown here can be sold here”
- There is a demand for local produce from the tourist industry and restaurants, as well as the local community
- The need to identify the particular market that was being targeted was highlighted (is it restaurants, groceries, lodges, etc.)
- Questions around doing a cost analysis of how many food trucks come to Tofino/Ucluelet
- The challenges around raising affordable local meats due to the distance of official abattoirs (idea proposed: a moveable boat-based abattoir)

Social/Community

- Generally it seems as though many, many community members are keen on strengthening the local food system
- There are concerns regarding the lack of resilience, or the fragility, of the current food system
- There is desire to develop food growing and education initiatives in all eight Nuu-Chah-Nulth communities – the Octopus garden (Gordon)
- There is already educational opportunities via the TCFI, but there is a desire and need for more educational opportunities related to growing food, etc.

Ecological

- There is a need to find a solution to all the challenges encountered with the water restrictions which are increasingly earlier each year
- There is a recognition of the dwindling fish stocks and so aquaponics is of interest
- There is an interest in incorporating fish wastes into soil building initiatives. There was some discussion of how this waste could be accessed and processed (is there a specific need to process fish in a designated abattoir, where is the closest one, how would fish waste be accessed, etc.)
- There was concern with regards to the water restrictions in the summer and the intense rain in the winter, and desire for education initiatives in order to address these extreme conditions
- There was discussion around how “wild harvesting” or “foraging” fits into agriculture, and how to ensure that this practice is being carried out in a way that is sustainable if not regenerative

Marine Food System/Land Based Food System

- There is recognition of the marine food sources as well as the “wild” or “foraged” food sources being a huge part of the discussion around the food systems in Tofino and Ucluelet

Areas of Opportunity

Economic

- Agritourism, including marine food sources as well
- Idea: Developers are required to set aside some landscaping space for food production every time a new development goes in (i.e. can even be a couple of fruit trees).
- Growing various unique crops that are adapted to that zone, or that thrive there (developing terroir to that region)

Social/Community

- Community Kitchen spaces
- Education initiatives around composting
- Education initiatives around wild harvesting, conservation and restoration
- Chicken co-op initiatives
- Setting aside more areas designated for community gardens or community farms

Ecological

- Concentrated efforts to increase availability of locally produced compost
 - Community composting initiatives
 - Restaurant food waste pickups
 - Discounts at farmers markets for home compost drop-offs
 - Use of fish waste for composting
- Fostering of “wild spaces” on farms and in public parks for wild edibles
- Permaculture design
- Rainwater capture during rainy months (on larger scale, perhaps through ACRD supported programs?)
- Aquaponics
 - Starting small scale and building up
- Season extension techniques (greenhouses, row covers, etc.)
- Growing crops for compost
- Growing more native food plants as specialty crops

3) Case Studies

The three case study sites were chosen based on the differences between them, as well as the similarities that they had to other potential growing sites/ scenarios within the region. They were chosen to represent roughly three different scales and types of growing operations.

There were some similarities between all case study sites, and the major challenge that they all faced was access to good, friable soil with good tilth. There are various soil resources listed in this document, ranging from small-scale solutions, as well as integrated farming solutions (Karl Hammer method). The lack of livestock or animal production in this region is also something that can be further explored, as

the demand for meat for eating in the region is significant (due to tourism, restaurants, etc.), and the potential that livestock has for providing good quality manure to build soil is undeniable. Though this could not be completely addressed in this project, the issue of soil production in the region requires further focus; the creation of more integrated farming systems with animals and opportunities for growing crops as compost fodder (for example at the Airport site) should be considered.

The three case study sites are outlined in the table below.

Table 2.0: Site Surveys for Case Studies

Site	Name	Size	Characteristic	Ecological /Social Characteristics
#1	District of Tofino	1.6 acre park in residential subdivision, cleared and levelled	Public sector project, various outcomes possible	Bare land, surrounded by trees, sloped on the north side
#2	Dan & Jennifer Price-Francis	1.5 acres	Home-scale food growing operation, both for personal and market consumption	South-facing, out of the "fog zone", surrounded by a wind buffer, close enough to town for sales. Raised beds and small greenhouse, as well as water storage.
#3	Ucluelet First Nation, Wya Point Garden Site	5 acres, some buildings	Community garden site with much potential	Right at the junction so highly visible and lots of people will pass by, already established garden site

CASE STUDY #1: SMALL-SCALE, BACKYARD GARDEN FARM

Bodacious Oasis, Dan and Jennifer Price-Francis

The focus on the backyard-scale of food production is important in this region, as it offers opportunities for self-sufficiency, healthy, fresh food, and education. Dan and Jennifer have done really well at growing vegetables in a region where many people still ask "but can you even grow vegetables out here?." They are dealing with some challenges, mostly relating to the high costs of infrastructure, lack of time, and lack of affordable labour. They hope to expand their operation, but are unsure how to best approach this due to these challenges.

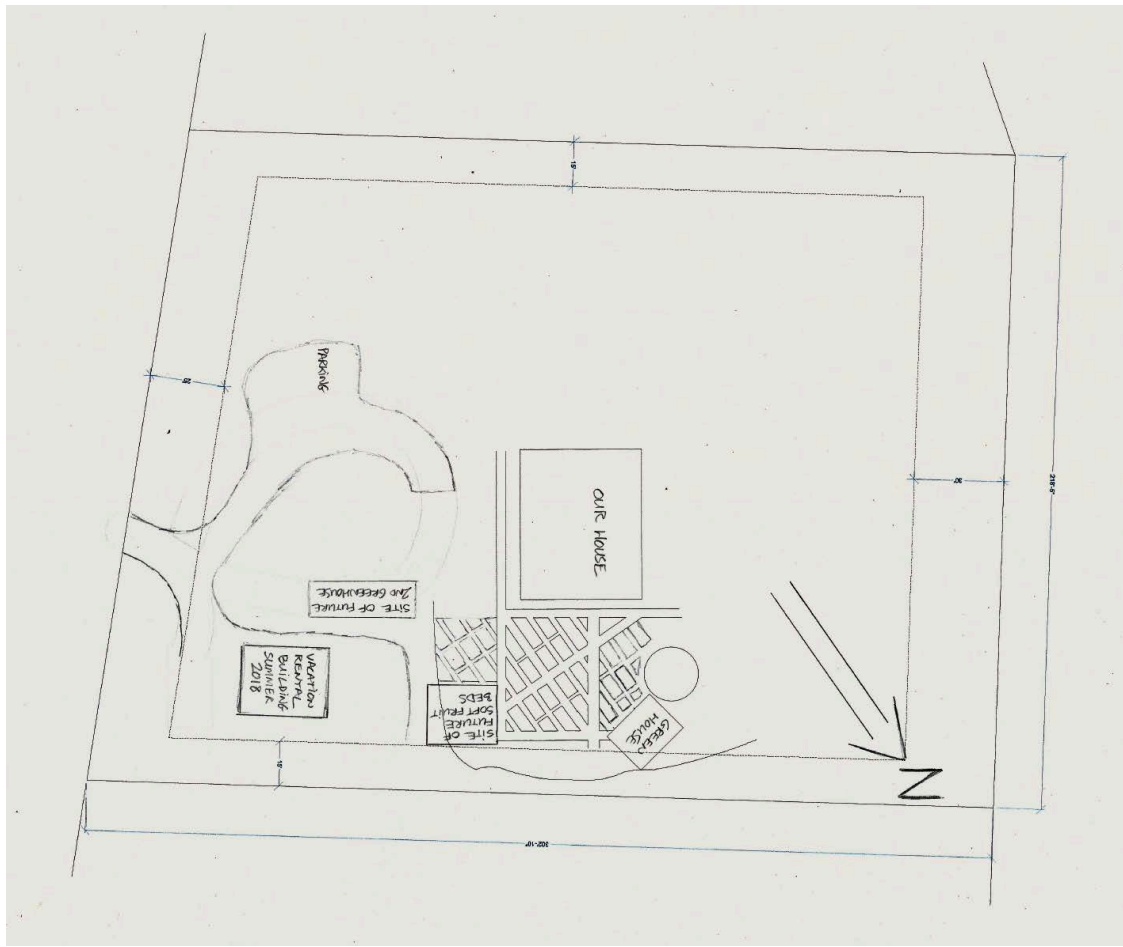


Figure 4.0: Drawing by Dan Price Francis



Figure 5.0 Price-Francis: Raised beds and greenhouse

There are various ways that backyard growers can deal with their unique challenges. In terms of actual growing techniques, there are some great examples of successful production and management approaches that help small growers increase their production without damaging the soil. Many small-scale growers opt to focus on high-value crops (e.g. salad greens) that are in frequent demand and can hold a high price point. Others expand their operations by engaging in a yard sharing. Additionally, there are various organizations that help secure farm labour in exchange for homestays, education or a stipend. Another option would be to set up a more localized "labour exchange" with aspiring gardeners. If backyard growers in Tofino/Ucluelet agreed to form a collective, committed to teaching aspiring gardeners through engaging on hands-on work in their gardens, these "apprentice growers" could be rotated between garden sites.

Farming and gardening take up an enormous amount of time not only on the land, but away from the land as well. Small-scale gardeners will do well to collaborate on marketing, deliveries, and sales. This allows for a diversity of product, as well as a more consistent and voluminous supply, all for which keeps these products in the minds of customers. Additionally, it distributes the labour between a few parties, thereby helping to diffuse the amount of work that would otherwise be placed on one individual or one operation. There can also be models where each backyard grower in a collective will produce different crops on a rotation, so that each garden is actually conceptualized as one portion of a larger farm (even though geographically separated).

Growing operations need to support each other in order to raise the visibility and awareness of food that is already being grown in the region, as well as the need for more of it. Collectively tackling issues such as labour, time management, and even diversity of crops can lead to greater success, as well as lead to additional perks such as knowledge exchange and moral support.

Hopes for the Site and the Business:

- Greater production, expanded growing area
- Ability to produce enough to economically support this as full-time work
- More labour/help in harvesting

Opportunities for this model of food production:

- Increases self-sufficiency
- Once established, gardens can help offset the cost of buying food
- Best way to "learn by doing"
- Can be a way to educate other aspiring home gardeners
- Even if not able to generate full-time income, possibilities to supplement other income by selling at market, restaurants, or other households
- Other types of smaller-scale production that can supplement this: Mushroom production, micro-greens, flowers, value added products (herb tea, jams, etc.)
- Animal products via home-scale livestock: chickens, rabbits, geese, guinea fowl, pigs, etc. This not only would provide food for the gardener, or

restaurant/market, but also will provide manure. Certain goat breeds are another option, as both milk and manure can be harvested or they can be used for browsing and invasive species management.

Challenges:

- Water is scarce in the summertime (yet they have additional rain water catchment storage tanks)
- Labour is very expensive and there is not enough income to hire someone for regular full time work
- Hard to develop this as a primary income stream
- Infrastructure costs can be high and the return on investment is slow
- Cost of soil and importing soil is very high, there needs to be more soil building opportunities or collaboratively purchased soil in the meantime
- Many people are renting and therefore are reluctant to invest a significant amount of funds towards a garden that they will have to vacate. Also, many people are required to vacate their space during the spring/summer when the tourist season is highest, which also unfortunately coincides with the growing season

CASE STUDY #2: COMMUNITY DRIVEN, GARDEN-RELATED BUSINESS

Wya Point, Ucluelet First Nation



Figure 6.0 Wya point garden site



Figure 7.0 Map provided by Erin Baumeister

The Wya Point Garden site is uniquely located right at the Tofino-Ucluelet traffic junction. This makes it a first point of contact for road-weary travellers and offers potential to further develop the ongoing food production initiative so as to be producing food for a food truck or food distributor at the same location. The fact that there is already an established garden on site is a huge bonus, though they still struggle with poor soils and lack of local compost (a problem for most gardeners in the region). The opportunities for this model of garden-to-food-truck are great, but there are also some challenges.

The Wya Point Garden is already established but according to interviews with Gordon Taylor of Ucluelet First Nation, it can fall neglected due to lack of support and labour. There have been attempts in the past to involve more volunteers and workers in the garden, and there needs to be further efforts placed in exploring a solution for more community engagement. The ULFS has actively volunteered for the past two years and has brought some produce to the community and to markets.

The garden, paired with a future food truck and seating area, has potential to create a tourist attraction, as well as a restaurant for the locals. Additionally, the proximity of the garden to the main entryway to the region makes it an ideal demonstration site, which can be toured by the diners at the food truck or visitors just arriving to the area. This also opens the door for this site to be a potential learning site, and as there has been strong interest in exploring aquaponics in this area, this could perhaps be the site for a small-scale aquaponics pilot project. The potential of creating a popular place for visitors and local community alike to eat and enjoy fresh food from the garden is evident, but community engagement will need to be developed in order to create a lasting success. One way to achieve this is to bring together community for a design charrette, where ideas are collaboratively shared in an informal, creative setting.

Many of the challenges and opportunities between this case study and the previous one are similar, and as such the resources for each have some parallels, though also some differences.

Hopes for the Site and the Business:

- Intensified production, as there is not enough food being produced
- More involvement from all the 8 communities (Octopus Garden) so that there can be greater food security in the region
- More labour/help in harvesting
- Aquaponics demonstration

Opportunities for this model of food production:

- Increases self-sufficiency
- Once established, gardens can help offset the cost of buying food
- Best way to “learn by doing”
- Great link between food truck (which has low overhead) and local garden
- Demonstration site for both tourists and locals: Can be a way to educate other aspiring home gardeners in the region, and can also show an innovative model of garden-to-food truck business
- Other types of smaller-scale production that can supplement this: Mushroom production, microgreens, flowers, value added products (herb teas, jams, etc.) that can be sold at the info centre on the same site
- This particular site has various outbuildings that could help support value added processing of foods from the garden
- Gordon Taylor, main community contact for this site, suggested incorporating Indigenous foods into the menu, so the offerings were of local indigenous

- foods (venison, salmon, as well as market vegetables from the garden)
- Gordon has also outlined hopes that this garden could help as a learning garden, so that the different Indigenous communities can look to an example that can be reproduced in their own communities
- Gordon has also outlined an interest in Aquaponics, due to concerns regarding the fish stocks declining. Through his own expertise and training in this field, he sees this as a viable option for this region. This site may be a perfect area to pilot a small-scale aquaponics system, which could eventually also provide fish to the food truck.

Challenges:

- Water is scarce in the summertime
- Labour is very expensive and there is not enough money to hire someone for regular full time work
- The junction is centralized in terms of the bottleneck point from which traffic is filtered into the region, yet it is a bit remote in terms of it's distance to Tofino and Ucluelet. There needs to be a way to transport community members to this site in order to allow workers and learners to easily reach it.
- Infrastructure costs can be high
- In terms of aquaponics, the initial costs can be high, and the failure rate can be high if the system is not monitored very carefully. This would require finding funds to hire someone who could regularly be involved in the maintenance and running of this system. There is a Vancouver Island example in Mason Street Farms, which created a unique urban aquaponics system, which they fundraised for extensively. After a few years of growing greens and raising food fish, they realized they were not making a profit, and shifted to growing Koi fish for sale for ornamental ponds. Eventually they closed the whole operation and just went back to farming in the soil, as they had too many losses along the way with disease, predation and chemical imbalances.
- Cost of soil and importing soil is very high, there needs to be more soil building opportunities or collaboratively purchased soil in the meantime

CASE STUDY #3: GARDEN SITE ON MUNICIPAL LAND

Bert Demeria Park, District of Tofino

The Bert Demeria Park is one of the parks in Tofino that currently doesn't appear to receive as much use as the other parks in town. It is a green, open space that has much potential. There have been various proposals and ideas for this park in the past, but currently it sits mostly empty except for two memorial benches and surrounding greenery. While there are many possible outcomes for this park, whether it be a sports field or left as is, it seems as though a proposal involving food production would be most relevant in this time of changing climate, and also the lack of food production on the coast.

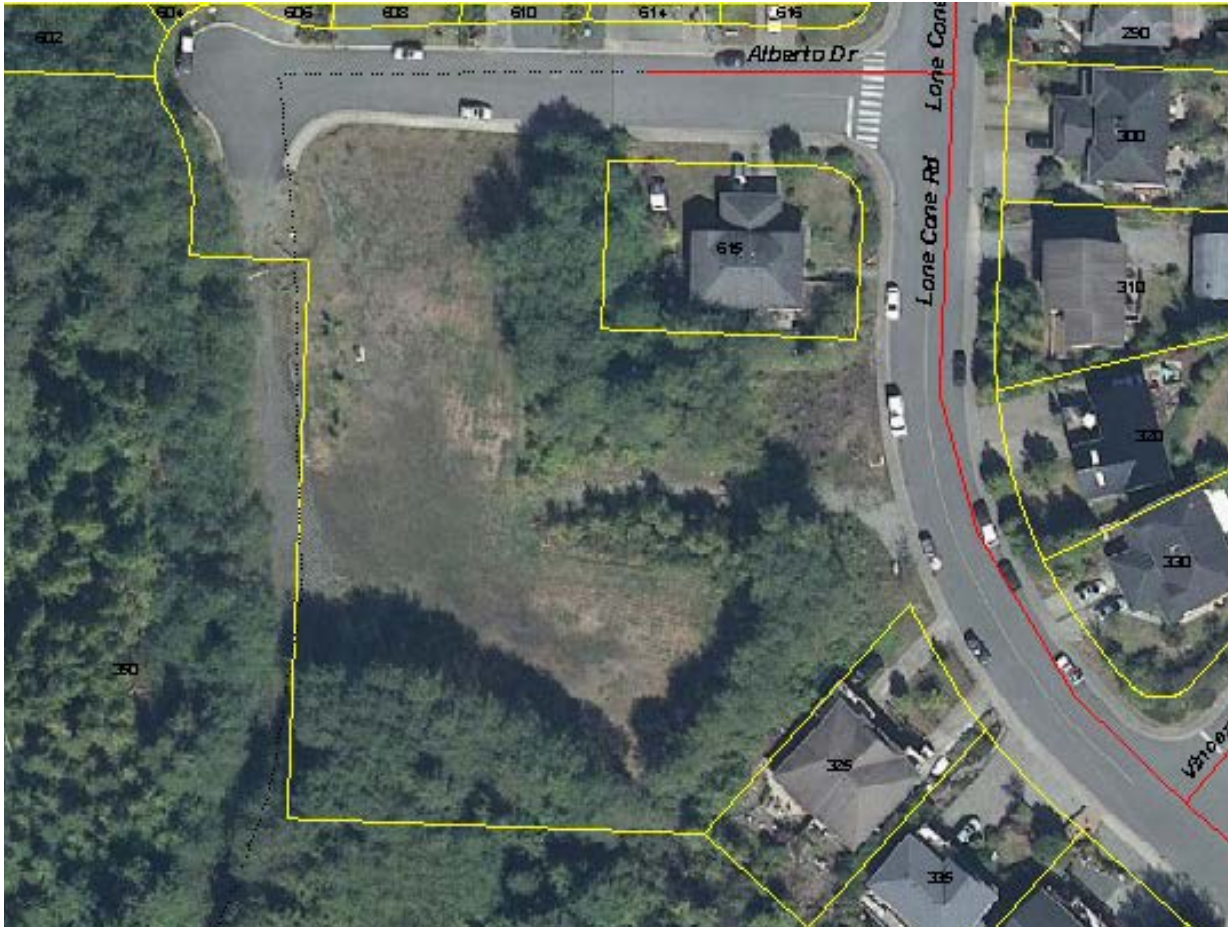


Figure 8.0 Overhead Google map of Bert Demeria Park

The park was noticeably wet and soggy both times I visited, and there is some pooling that happens in the winter months. There have been soil tests on this site in the past (See LEA report, 2013) with the specific goal of testing for Potential Contaminants of Concern (PCOC's). There were no PCOC's on this site, which bodes well for food production. However, if significant development or industrial activity has occurred upland of this site in the five years since this report was written, it may be useful to re-test prior to growing food in this area.

This site is an exciting opportunity to explore various types of food-growing pilot projects. The important issues to consider are community consultation and involvement, with the neighbours surrounding the site, the broader community of Tofino and organizations such as TCFI; this can be done in various ways.

There are several organizational models of food production that can be useful in this area, and here are three suggestions: *Community Garden*, *Community Farm*, *Community Orchard* or an *Incubator Farm*.

A *community garden* would consist of a multitude of raised beds that would be individually managed by gardeners who apply to rent a plot, and pay a yearly fee. Part of these fees would include funds to pay a general garden manager who can help

with overall upkeep of fences and organize work parties of gardeners to help with general area upkeep. The benefit of this model is that individuals can tend to their gardens as they wish, and decide how they will manage it. More individuals are able to be involved, and therefore more learning happens. The drawback of this model is that usually less food volume is produced overall, sometimes beds are left inactive due to busy lifestyles.

A *community farm* would consist again of raised beds that were cooperatively managed by a group of gardeners or a garden society. This group would collaboratively plan the crops and management of the farm for the year, and would each participate in various aspects of management. The benefit of this model is that there is a larger volume of each item of food produced (as opposed to the community garden model), there is support from a team of people working together, there is opportunity for knowledge exchange. The drawbacks to this model are that sometimes collective decision making can take longer and is more difficult, there must be compromises and not everyone will agree, there is more time spent planning and organizing in the initial stages and along the way.

A *community orchard* would consist of the planting of an orchard of fruit trees (or it could be berry bushes) that are tended periodically by community volunteers. The benefits to this model are that it only requires a significant initial effort to prepare the area and plant the trees, but then there is only a few maintenance days required each year. The drawbacks to this method are that the orchard takes quite some time to establish, and community can easily lose interest.

An *incubator farm* would consist of one or two dedicated individuals who are interested in farming this particular area. The individual(s) would be supported by a society or board (or an organization such as TCFI?). The incubator farm model is useful in launching new farmers on leased land, so that they can experiment and learn and develop their understanding of farming and farm business, prior to purchasing or long-term leasing their own properties. There are various models of incubator farms, but there are several examples listed in the resource list below. The benefits of this model are training new entrants to agriculture who may decide to develop their own farm businesses in the region. The drawbacks of this model are that there are less individuals who are actually learning how to farm (as each participant farmers would need to be allowed to stay on site for two years at the least), though this could be remedied with educational offerings on the site.

Hopes for the Site and the Business:

- A good site for a food production pilot project
- Engagement with the surrounding communities
- Potential for mixed models

Opportunities for this model of food production:

- Excellent central location. This means proximity to markets and other resources, as well as making it accessible for visitors for workshop or tours

- Increases local food for sale to restaurants and markets
- If this site works as an incubator farm, this is a great way to really foster and support local growers by giving them a place to practice and learn
- Demonstration site for both tourists and locals: Can be a way to educate other aspiring home gardeners in the region.
- Other types of smaller-scale production that can supplement this: Mushroom production, micro-greens, flowers, value added products (herb teas, jams, etc.), compost production

Challenges:

- Water is scarce in the summertime, and though there is a water source (fire hydrant) nearby, the costs for water would be high. This would need to be supplemented with water storage.
- Bears are a concern for the neighbourhood, and it would be important to install electric fencing
- The wider community must be engaged in order to successfully propose a food production project at this site – this requires time and energy. However, this will make the project overall more successful, as people will have an opportunity to share their input
- Infrastructure costs can be high
- Cost of soil and importing soil is very high, there needs to be more soil building opportunities or collaboratively purchased soil in the meantime

4) Growing Tools and Resources

The following chart offers thoroughly researched sources for growing tools, business models, and resources that are locally-relevant and could apply specifically to the three case study sites or broadly within the region.

Technique	Resources
Agritourism	• Farm Diversification Through Agri-tourism: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/farm-business-management/business-planning-guides/agritourism_guide_2017.pdf • From Agriculture to Agri-tourism: http://www.investkelowna.com/application/files/2114/7795/4795/agriculture_to_agri-tourism_revised2016-01-21.pdf
Agroforestry	• Agroforestry Systems and Best Practices: https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/agroforestry • BC Agroforestry Atlas: https://woodlot.bc.ca/agroforestry/
Aquaponics	• Barrel aquaponics: https://www.aces.edu/dept/fisheries/education/documents/barrel-ponics.pdf • Vancouver Aquaponics supplies and education: http://www.justaquaponics.ca/ • Island-based Resource: Jesse Brown at Mason Street Farms in Victoria BC

Biodynamics	• Biodynamics Association: https://www.biodynamics.com/ • Leda Farm, Biodynamic training opportunities in Port Alberni: https://alberni.ca/valley-heartbeat/biodynamic-agriculture-farming-around-cosmos-leda-organic-farm
Community Farms	• https://www.farmfolkcityfolk.ca/community-farms-program/
Community Gardens	• Best Practices Toolkit: http://www.toolkit.bc.ca/sites/default/files/DIG%20IT-%20MAY%208-FINAL%20WITH%20LOGOS.pdf • Best Practices Toolkit: http://www.foodsecuritynews.com/Publications/Community_Garden_Best_Practices_Toolkit.pdf • Lifecycles Survey results: http://lifecyclesproject.ca/app/uploads/2018/07/Victoria-Community-Garden-Report.pdf
Cooperative Marketing Models	• Saanich Organics http://saanichorganics.com/all-the-dirt/
Fencing	• Wild Safe BC: https://wildsafebc.com/electric-fencing/ • Government resources: https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/structures-mechanization/agricultural-structures-fencing
Food Forests	• Springridge Common, Victoria: https://fernwoodnrg.ca/fernwood-nrg-programs/food-security/gardens/spring-ridge-common/ • Banfield Community Orchard, Victoria: http://crdcommunitygreenmap.ca/story/banfield-community-orchard-community-project-bears-fruit-vic-west
Growing Resources for Small-Scale, Intensive Systems	• Grow Biointensive method https://johnjeavons.org/ • SPIN farming http://www.spinfarming.com/buy/ • Curtis Stone Intensive Production Systems for Urban Farms https://www.youtube.com/watch?v=C-Fnosozoik
Incubator Farms	• Young Agrarians podcast: http://youngagrarians.org/incubator-farms-start-your-farm-without-taking-on-lots-of-debt/ • Haliburton Farms: https://haliburtonfarm.org/incubator-farms/ • Powell River exploration of incubator farm model: https://www.prpeak.com/news/city-of-powell-river-investigates-incubator-farm-1.2271669
Labour and Apprentices	• Woofing Canada https://www.woof.ca/ • S.O.I.L Apprentices (https://www.soilapprenticeships.com/) • Rotating Apprentices: Sharing labour with other backyard growers in the region (rotating workers). There is potential to engage interested growers in the community by having them rotate between home gardens while learning about growing

Microgreens Production	- West Coast Seeds Guide: https://www.westcoastseeds.com/how-to-grow-guides/grow-microgreens/ - Johnny's Seeds Guide: http://www.johnnyseeds.com/growers-library/vegetables/year-round-micro-greens-production.html - Vancouver Urban Farmers Guide: http://www.urbanfarmers.ca/growing-and-selling-microgreens-with-tasty-greens-neighbourhood-farms/
Mushroom Production	- DIY Fungi: https://diyfungi.blog/ - Mycologos: https://mycologos.world/pages/courses - What the Fungus, Video Series: https://www.youtube.com/channel/UCYKZ6tv8d2rkGCMU_ja-b1Q
Permaculture Design	http://www.theurbanfarmer.ca/theurbanfarmer/ https://vergepermaculture.ca https://www.permaculturedesignmagazine.com
Rainwater Catchment/Management	- CANARM: http://www.canarm.org/about-us-canadian-rainwater-association - VanIsle Water: http://www.vanislewater.com/
Small-scale Animals	- Rabbits: https://attra.ncat.org/attra-pub/download.php?id=424 - Poultry: https://www.thehappychickencoop.com/file:///Users/hroessler/Downloads/poultry_basics_tip_sheet.pdf
Soil Building Tools	- Various Composting Systems: http://www.saskwastereduction.ca/assets/upload/dishing-the-dirt-report-online-version-5761b22671f1c.pdf - Integrated Farm/Compost System (Karl Hammer, Vermont Compost Company): https://www.vermontcompost.com/, https://www.youtube.com/watch?v=IWChH9MHkHg - Cornell Resource: http://cwmi.css.cornell.edu/composting.htm - Compost Education Center Instruction Sheets: https://www.compost.bc.ca/education/factsheets/ - Gardeners Pantry, Bokashi: https://www.gardenerspantry.ca/blog/bokashi-composting.html - Farm Folk City Folk, Biochar: http://www.farmfolkcityfolk.ca/PDFs_& Docs/Biochar%20manual.pdf - Find your best compost quiz: http://swrc.ca/quiz/index
Other General Resources	
- Soil Report of Tofino and Ucluelet http://sis.agr.gc.ca/cansis/publications/surveys/bc/bc11/bc11_report.pdf https://open.library.ubc.ca/cIRcle/collections/ubctheses/831/items/1.0093141 - Young Agrarians: http://youngagrarians.org/ - KPU Tsawwassen Farm School http://www.kpu.ca/tfnfarm - Lifecycles Project Society: http://lifecyclesproject.ca/ - Cowichan Green Community: https://cowichangreencommunity.org/	

Section 3: Implementation Plan

The Implementation Plan details the specific actions which can be undertaken by a variety of stakeholders in order to achieve the vision set out by the community. Everyone should be able to see themselves within the Plan, and its suggestions must be specific, measurable, time bound, realistic/doable, and appropriate within the context of the addendum and coastal community. Readers are encouraged to locate themselves within the stakeholders identified in the detailed plan and to undertake the associated activities.

The Implementation Plan consists of 3 Key activities and over 100 suggestions for other supportive activities. It includes some 'low-hanging fruit' where momentum and opportunities pre-exist within the community. Concurrently, it recommends some slower and more systemic strategies that integrate diverse values in order to enhance long-term viability.

“Supporting producers is hard,
but we don’t have food without them.”

1) Overarching Goals

The Implementation Plan is based on the following 8 overarching goals. Each goal is a category of desirable outcomes that will help to solve the problems, take advantage of the opportunities, or mitigate the challenges identified through this project’s research and discourse. An example of a related action is provided for each goal here, and more are listed within the Detailed Plan.

#	Overarching Goal	Action Example
1	Increase Food, Cultivation, and Business Literacy	• Sponsor a series of agricultural business literacy workshops (Municipalities)
2	Increase Youth, Nuu-Chah-Nulth, and Employment Projects	• Develop an Octopus Garden, an agricultural project involving 8 coastal governments and councils (Municipal & Nuu-Chah-Nulth)
3	Increase Access to Infrastructure	• Dedicate land to agricultural development, including both large tracts and community spaces within new developments (Municipal, Nuu-Chah-Nulth, and Regional government/councils)
4	Increase Financial Resources	• Offer incentives to producers and processors (Various)
5	Reduce Policy and Program Barriers	• Ensure policies are scalable to small and emerging producers in remote areas with low population densities (Provincial & Federal Governments)
6	Increase Soil and Water Resources	• Make use of the available organic resources within the community (Various)
7	Ensure Culturally-Appropriate Food Production/Branding	• Participate in regional agricultural planning processes (Nuu-Chah-Nulth Governments, Councils, and Members)
8	Expand and Diversify Seafood Operations	• Develop secondary processing facilities, such as a Fish Stick plant (Businesses)

Coastal Addendum: Implementation Plan

2) Key Activities

The following three key activities are primary. Each will support a number of the overarching goals and ensure long term programming, high sector visibility, and sustainability. **Their function is as the backbone of the implementation process.**

A. Create Compost

The quality of soils and lack of finished compost products has been widely acknowledged as a primary limitation to increased coastal production. Good soil is the foundation of most land-based agriculture and the coast boasts an abundance of some potential primary ingredients, such as restaurant and kitchen waste, kelp, and fish waste. Production of 'brown' matter for compost could be a primary agricultural operation through the production and management of alder, hemp, or other fast growing carbon crops.

All levels of governments have indicated interest in lowering the amount of organic materials being brought to landfill, and the ACRD has recently been awarded a \$6 million grant to assess options and develop infrastructure. Compost management at a household, business, or community level is also a good way to connect the general public to the food system and get them involved and educated about food production and its challenges and processes.

There are various ways to initiate a compost program, and the subject requires further study and discussion. Regardless of large scale projects, small scale and/or pilot projects must be strongly supported. Every small step or learning experience will be of assistance.

B. Establish a Coastal Agriculture Roundtable (CAR)

Convened by the ACRD, this roundtable will provide a formal opportunity for high level networking, policy discussion, project creation, and development of the primacy of agriculture within the coastal community. It will act as a direct channel to the ACRD, and subsequently to the Provincial Government. A qualified facilitator will serve to field questions, conduct required research, share funding opportunities and external project models, and make referrals to provincial government or other external supports. The ACRD's Agricultural Development Committee and Agricultural Support Workers currently provide a similar platform within the Alberni Valley, but the coastal needs and community are distinct.

This Roundtable will consist of a representative/s from:

- Each Nuu-Chah-Nulth and Municipal Government or Council;
- The ACRD;
- The Coastal Community Coordinator/s (See below)
- Producer and Processor sector (including marine and forest products);
- Food and Agricultural Organization/s;
- Restaurant and Retail Sector; and,
- Others as deemed beneficial.

In-person meetings are likely to be challenging considering the coastal geography, and therefore it is suggested that a minimum of 2 meetings take place annually, with members attending in

Coastal Addendum: Implementation Plan

person if at all possible. In addition, these meetings must include an ability to participate via conference call or online video platform.

This body will assist with the specific work outlined in the ‘municipal’ and ‘regional’ government sections of the detailed Implementation Plan. More broadly, the CAR will:

- Bring agriculture and food production to the front of the agenda for individual communities
- Offer a venue for sharing resources, grant opportunities, experiences, and ideas for policy and project developments
- Form a backbone body for a coastal initiative such as an ‘Octopus Garden’ (see Table Note 3 of the Detailed Implementation Plan)
- Decide on priorities for Plan Implementation
- Ensure a cohesive coastal brand
- Reduce redundancies in activities and allow cross-referencing of projects
- Support high-level networking and partnership opportunities
- Allow primary producers and processors to directly engaged with local governments, providing context and perspective for policy, education, and event initiatives
- Reduce segregation and silos between land-based, marine, and forest-based food industries by providing an opportunity for direct affiliation
- Provide a platform for evaluation and monitoring of agricultural growth

Nuu-Chah-Nulth communities, in particular, will benefit by having administrative staff with agriculture, food production, or food sovereignty as part of their portfolio of responsibilities. This will support them to capitalize on the host of agricultural funding initiatives that exist for indigenous communities. With the potential financial and territorial resources available to them, they are well positioned to act as leaders in project development. Projects could include community-supportive education and training programs and, with Nuu-Chah-Nulth leadership, could fundamentally guide the creation of a culturally and earth-appropriate system for community nourishment.

C. Support a Coastal Community Coordinator

Without someone to carry out the nuts and bolts of this Plan, much of it will simply not get done. Existing organizations are, positively speaking, *doing the best they can* with their existing resources, and government bodies are generally not in the business of ‘doing’, they are more accurately in the business of ‘deciding’.

While non-profits do employ people who act as organizers and community coordinators, their work is limited and chronically challenged by a dependence on short-term grant funding. Instead, the activities need to be assured, medium-term at a minimum, via established and primary funding. This funding could be secured by income generation programs or through innovative visitor taxation, such as a Restaurant Tax (See Table Note 4). Dedicated funding has the additional benefit of formally acknowledging and supporting agricultural development at the local government level, which in turn helps to influence public opinion. Once infrastructure, systems, coastal platforms, and income streams are established, the need for funding may be reduced.

In the present, the Plan requires someone who is funded at the coastal level and is actively engaged and on-the-ground in the community. It is important to note that this does need to be a

Coastal Addendum: Implementation Plan

single person; the functions could be performed as a team, for example, with one person in the southern communities and one in the northern, or alternately, with one person in each community. The key in these cases would be that the team actively collaborates and develops a coordinated plan to ensure that all the necessary functions are carried out.

The Coastal Community Coordinator/s will:

- Sit on Coastal Agriculture Roundtable (CAR);
- Develop and facilitate opportunities for synergy, synchronicity, and cooperative efforts between producers and processors
 - Specifically those related to labor, materials, markets, import of resources, joint transportation, and development of producer collectives;
- Assist with educational events, annual celebrations of food, development of community projects, and provision of expertise and resources to farm start-ups;
- Monitor and collect data on local production, services, and supply chains, in order to
 1. Support producers with current industry information, and
 2. Assist Regional government with project monitoring and evaluation;

3) Monitoring and Evaluation

At the highest project level, the Coastal Community Coordinator/s and CAR will serve to collect, record, and share monitoring and evaluation data, and this will help to guide decision-making about action priorities. They will also produce and share their own internal frameworks for monitoring and evaluation, adjusting activities where they are not meeting baseline measurements of success (for example, diverse participation in the CAR).

The specifics of monitoring and evaluation procedures is not detailed for each action within the Implementation Plan, as it is unrealistic to assume that all of the actions will be taken or to know within what time frame they will occur. However, as actions are chosen for implementation, the person or organization involved is advised to develop a framework for monitoring and evaluation that includes:

1. Measurements of Success and Determination of Timelines
 - How will you know you've been successful?
 - What will you do to find out?
 - Who will do it?
 - On what timelines?
2. Collection/Recording of Data and Indicators:
 - Number of people impacted (educated, attending, served, etc.)
 - Number of activities (events, purchases, deliveries, engagements, etc.)
 - Production data (new farms, individual production levels, etc.)
 - Systemic impacts (new businesses, projects, trends, etc.)
 - Qualitative data (opinions, feedback, suggestions, etc.)
2. Process for Information Sharing
 - Who needs to know?
 - How will you share the info?

Coastal Agriculture Implementation Plan

We aim to have specific and actionable activities for a variety of stakeholders that are balanced between some 'easy-pickings' and a more challenging long term perspective.

Create
Compost
Fertile soils is a must

Establish a
Coastal Roundtable
We achieve more working together

Support a
Coastal Coordinator
If nobody does it, it won't get done!



Literacy Increase Food, Cultivation, and Business Literacy
For example, sponsor a series of agricultural business literacy workshops

Employment Increase Youth, First Nation, and Employment Projects
For example, develop an agricultural project involving multiple coastal governments or councils, like the Octopus Garden with Yuulu?il?ath

Infrastructure Increase Access to Infrastructure
For example, dedicate land to agricultural development - large tracts and community spaces within new developments

Funding Increase Financial Resources
For example, offer financial incentives, such as service fee reductions, to producers and to processors

Culture Ensure Culturally Appropriate Food Production and Branding
For example, engage Nuu-chah-nulth stakeholders in agricultural planning processes

Soil & Water Increase Soil and Water Resources
For example, commit to making local organic resources available for public use

Policy Reduce policy and program barriers
For example, ensure policies are scalable for small and emerging producers in remote areas

Marine foods Expand and Diversify Seafood Operations
For example, develop secondary processing facilities

Infographic by: Erika Goldt, CBT

4) Implementation Plan, Detailed

The Detailed Implementation Plan Table follows, depicted by primary Goals and Stakeholders:

Coastal Addendum: Implementation Plan - Detailed

Goal #1	Increase Food, Cultivation, and Business Literacy
Individuals	• Take a course in how to grow your own food. Attend community food events/work bees • Talk about the importance of healthy, locally produced food with family and friends • Choose to acknowledge producers when speaking at events that include dining • Start and maintain a backyard vegetable garden or community garden plot • Participate in surveys about consumption, production, organic waste management and other matters related to local agricultural development • Teachers - Incorporate a school garden and agricultural literacy into curriculum (see Resources, Appendix 1). Take field trips to coastal production or processing facilities
Organizations	• Continue to develop and facilitate workshops and annual food and agricultural events • Continue to assist with development of new community gardens, farms, and food forests • Facilitate educational events about social enterprise, cooperatives & wildlife mitigation • Use appropriate technology to reach various audiences (video, social media, etc) • Develop PR campaigns that educate residents about 'ugly food' and product seasonality • Develop a school garden program that includes crop production for lunch menus and chef's activities with students (see Resources, Appendix 1) • Convene local planning sessions that include chefs, institutions, distributors, and producers to share product and process needs and foster relationship-building • Alberni Farmers' Institute - Recruit membership from coastal communities • Institutions - Participate in a community forum to share product & process needs and foster relationship-building & development of purchase agreements with local producers • Parks Canada/Wild Safe BC - Deliver education on wildlife mitigation for producers • Tourism Associations - Include agri-tourism and bioregional food systems in promotions • TUCG - Develop and share lists of desired products & appropriate pricing for producers.
Municipal Governments	• Sponsor an ongoing series of agricultural business development workshops, such as business and succession planning, operation and labor relations manuals, GAP planning, risk management, marketing, food safety, and bookkeeping (see Resources, Appendix 1) • Include food production and processing in recreational programming
Regional Government	• Ensure coastal stakeholders are included in Alberni Valley initiatives and organizations • Undertake further study to determine: current annual production volume; potential production given adequate soil resources; the annual amount and type of food imports and their recipients (tourism market vs residents); and associated costs (diesel, road maintenance, and environmental footprint)
Nuu-Chah-Nulth Government/Councils	• Develop cooking classes and gardens using traditional foods and methods in schools • Establish scholarship fund for food & agricultural education (short & long term programs) • Support member attendance at Indigenous Food Network events
Provincial Government	• Continue to develop and share training programs and reference sheets that support agricultural businesses and business development (see Resources, Appendix 1)
Producers / Processors	• Seek business mentorship and support with organizations such as Community Futures, Women's Enterprise Centre, Farm Business Advisory, other (see Resources, Appendix 1) • Join producer networks and support systems such as Young Agrarians, Farmers' Institutes, or others (see Resources, Appendix 1) • Share business plans and expertise with others. • Offer mentorship to new industry entrants • Include public education materials as part of marketing and promotional packages • Add business information to Island Health's Food Map, West Coast Growers' Guide, and other local databases
Restaurants / Retailers	• Participate in garden-to-table culinary programs at local schools • Participate in a community forum to share product and process needs and foster relationship-building and development of purchase agreements with local producers with local producers

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Goal #2	Increase Youth, Nuu-Chah-Nulth, & Employment Projects
Individuals	• Teachers - • Develop programming that measures food imports, production, and purchasing habits • Use school gardens to develop business and marketing skills programming
Organizations	• Facilitate development of a human resource and short term labor pool for agriculture that includes outreach to transients and travellers • Research and share models of successful agricultural projects • Support development of a coastal 4-H chapter • Facilitate gardening programs for children and/or those that connect elders to children • Support branding development and assist in marketing Nuu-Chah-Nulth products
Municipal Governments	• Make municipal land available for use in agricultural programs or initiatives • Research and develop Agro-forestry operations within the Barkley Community Forest • Develop programs to convert landscaping waste to compost • Shift focus of municipal plantings to edible species, train groundskeepers in organic cultivation, and invite community to participate in management and harvest
Regional Government	• Fund business and feasibility studies for new or expanding agricultural initiatives
Nuu-Chah-Nulth Government/ Councils	• Offer educational programs highlighting traditional food and cultivation to residents and transients • Consider agri-tourism and traditional food when developing cultural tours and programs • Employ a member to facilitate gardens, food storage, and equipment in communities • Engage elders in developing and managing native plant nurseries and traditional gardens • Invite speakers to share examples of successful projects at Government meetings • Participate in development of an 'Octopus Garden' (See Table Note 1) • Develop a therapeutic farm as an employment and training opportunity for youth and women • Initiate infrastructure projects in offshore communities (wood shavings for animal bedding, meal worms for feed, seed saving/plant nurseries, composting, rain or fog water harvesting, fencing) • Research and develop Agro-forestry operations within the Barkley Community Forest
Provincial Government	• Continue to offer a diverse complement of agricultural grants and programs • Fund pilot and research projects for non-traditional production systems such as grow-pods, aquaponics, and food forests in areas that lack a traditional agricultural land base or infrastructure • Ensure grant programs are scalable to small businesses in remote and sparsely populated areas
Producers / Processors	• Offer work/stay arrangements or temporary work to transient populations • Tap into existing employment grants such as Canada Summer Jobs, Get Youth Working, SOIL apprenticeships (See Resources, Appendix 1) • Offer volunteer opportunities to high school students needing volunteer credits • Develop and teach a curriculum for gardeners and farmers • Investigate and develop community-suggested agricultural business models, such as: • Pork operation with animals fed with restaurant waste, Class E slaughter facility • Grow-pods within shipping container • Producer collective that shares material assets, markets, knowledge • Agri-tourism sideline to capture tourist dollars and showcase the industry • Non-food production (fibre, compost fodder, fuel, flowers, etc) • Garden 'start-up services' for residents, businesses, or community gardens • CSA and/or Winter production schemes • Value-added processing using coastal ingredients and branding schemes
Restaurants / Retailers	• Identify high demand and desirable products

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Goal #3	Increase Access to Infrastructure
Individuals	• Consider sharing/leasing unused land to producers or organizations for food production • Work with neighbours to develop and manage neighbourhood garden plots, compost facilities, beehives, and small livestock pens • Offer transportation infrastructure (e.g. empty trucks) to producers/processors for imports/exports, where logistical support is provided by a community coordinator
Organizations	• Support development and management of neighbourhood garden plots, compost facilities, beehives, and small livestock pens • Assist with coordinating producer/processor access to transportation infrastructure and commercial kitchens • Develop community platform for sharing agricultural materials, tools, & small infrastructure • Purchase and manage community-accessible equipment • TUCG - Create avenue for local producers with low production outputs to access services • Vancouver Island Regional Library - Start a seed library (see Table Note 2)
Municipal Governments	• Make municipal land available for use for agricultural production or processing facilities • Identify land parcels to secure perpetually for agricultural use in perpetuity, such as through Food Land Trusts • Donate expiring equipment and vehicles to food and agricultural organizations • Encourage residents to develop neighbourhood nodes for composting and food production • Offer financial credits for start-up costs to businesses who offer production spaces • Offer property tax credits for properties with accessible community gardens • Designate production spaces at multi-use community hubs and emergency centres • Support large-scale greenhouse projects
Regional Government	• Make regional land assets available for agricultural production or processing facilities • Continue to lobby for Regional Designation under Provincial Meat Inspection Regulations • Support large-scale agricultural infrastructure projects
Nuu-Chah-Nulth Government/ Councils	• Develop agricultural infrastructure projects and community food storage facilities (coolers/freezers) • Purchase and manage community-accessible equipment • Develop community beehives, poultry and small livestock operations, and gardens • Undertake restoration of traditional clam, mussel and seaweed beds, berry and root gardens, t'ucup (sea urchin) gathering locations, and traditional drying/preserving areas
Provincial Government	• Donate expiring equipment and vehicles to food and agricultural organizations • Develop funding program for community infrastructure projects • Support development of Food Land Trusts or ALR within the coastal region, including parcels implementing alternative production systems
Producers / Processors	• Share in the use of infrastructure • Develop cooperatives or collaborative agreements with others • Apply to develop Class E abattoir facilities • Research land leasing models, including labor, financial, or product exchanges • Seek out interested land owners, share options, and engage in discourse & negotiation
Restaurants / Retailers	• Consider avenues to allow producer or processor use of equipment or facilities • Develop dedicated marketing promotions for local producer/processor products • Dedicate a section of store space for local food, where residents can sell their extras
Businesses	• Ensure landscaping installations and services include edibles and their management • Invite producers to manage and harvest edible gardens • Stock agricultural inputs (feed, bedding, soil supplements, seed, etc) in retail spaces • Consider avenues for sharing infrastructure or retail space with producers/processors

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Goal #4	Increase Financial Resources
Individuals	- Buy local food directly from producers and at local markets - Donate cash to organizations specifically for food and agriculture related projects
Organizations	- Offer free tuition to producers for farm-related educational events - Offer no-cost promotional sections in newsletters for local growers and processors - Facilitate grant-writing workshops Association of BC Farmers' Markets - allow use of nutrition coupons for low-income residents at markets in areas with low number of primary producers (See Table Note 3) Community Futures - Offer business development programs that provide support resources and base wages to producers through a start-up period
Municipal Governments	- Support grant applications with in-kind offerings such as printing and room rentals - Waive business license fees for producers and processors - Share information about internally and externally available grants - Offer water credits to residential producers - Offer property tax credits for local producers who lack official BC Farm Tax Status - Implement a restaurant tax, similar to the hotel tax, to be used as a funding pool for agricultural operations and/or to fund a community coordinator (See Table Note 4) - Maintain annual budget for agricultural support and community agricultural initiatives - Include Agriculture as a focus for Community Economic Development Action meetings
Regional Government	- Assist with grant writing, support applications with in-kind offerings or matching funds - Serve as financial administrator for grant projects which support these recommendations - Ensure multi-year funding is made available - Promote coastal operations and organizations within the Alberni Valley and beyond - Develop a start-up grant for new producers - Develop a buy-local policy for regional events
Nuu-Chah-Nulth Government/Councils	- Tap into external programs and grant opportunities for indigenous agricultural initiatives - Develop tourism programs focused on traditional practices - Maintain annual budget and dedicated staff for food and agriculture initiatives
Provincial Government	- Provide incentives for institutions to purchase from local producers - Contribute funding for local and regional agricultural support - Publish an annual 'Guide to Agricultural Funding Resources' which includes Provincial and independent funding agencies and programs
Producers / Processors	- Engage in child care, labor, and equipment swaps with other producers - Check & apply for available grants/ programs regularly (See Resources, Appendix 1) - Incorporate high-value products such as pea shoots and table centres into production schemes - Develop cooperatives to unite micro-producers and increase efficiency and profitability - Develop direct relationships with producers and/or processors - Develop business and succession plans and operations and employee manuals - Develop efficient and scalable production systems, scaling up where feasible - Seek support from industry associations (See Resources, Appendix 1)
Restaurants / Retailers	- Develop marketing promotions spotlighting local farmers, fishers, foragers, and products - Purchase and make use of 'ugly' vegetables
Businesses	- Offer service fee reductions for producers (massage, bookkeeping, wellness, childcare) Landlords - consider reduced rents for producers/processors or for maintenance of edible gardens Banks/Credit Unions - Offer free financing or postponed repayment on agricultural loans. Ensure loaning requirements are scaleable to small and start-up producers

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Goal #5	Reduce Policy and Program Barriers
Individuals	• Create a personal 'local food' policy and commit to buying from local producers
Organizations	• Institutions - Develop local purchasing and healthy food policies • Certified Organic Association of BC - Adapt or scale programs to increase accessibility to small and remote producers; develop new models that better support them in local markets
Municipal Governments	• Ensure agriculture and urban agriculture is included within OCPs and zoning bylaws including: • Allowing small-scale commercial urban agriculture as a home occupation, including use of accessory buildings and allowances for infrastructure and human resources • Allowing commercial agriculture and greenhouses in commercial/industrial zones • Allowing for farm gate sales • Allowing for responsible composting and keeping of poultry and bees • Designating high ground 'flood-safe' areas for food / agricultural infrastructure • Ensuring supportive policies exist for signage and marketing of local food • Ensure food & agriculture is prioritized in sustainability & emergency planning initiatives • Develop local purchasing and healthy food policies • Require developers to set aside spaces for community food production in new subdivisions or developments (fruit trees, community gardens, chicken runs, etc) • Endorse a Regional Food Charter (See Resources, Appendix 1)
Regional Government	• Bring motions that support the recommendations of this Addendum to the Association of Vancouver Island and Coastal Communities (AVICC) for adoption at the UBCM convention
Nuu-Chah-Nulth Government/ Councils	• Include traditional food gardens and food-related practices in school curriculum • Develop local purchasing and healthy food policies • Ensure food / agricultural is considered in planning processes, and funded and staffed • Develop policy outlining how members access food from and use community gardens. • Create a regulatory and protocol frameworks for traditional harvesting and cultivation of so-called 'Non-Timber Forest Products' • Develop and share a protocol for appropriately approaching and communicating with Nuu-Chah-Nulth communities and governments when seeking partnership/participation
Provincial Government	• Ensure that policies reflect agriculture's ecological, social, and economic value • Include the ACRD as a 'Designated Region' under the Meat Inspection Regulations • Amend Farm Property Tax regulations to allow groups of growers to apply cooperatively where there is an abundance of small parcels and no ALR land to lease in small portions • Adapt Farm Property Tax program to better support small scale and start-up producers in remote areas of low population density, where contributions are significant to local production • Amend grant eligibility requirements to be scalable to new or small-scale producers and processors (Eg. Farm Business Advisory, Investment Agriculture Foundation, Environmental Farm Plan) • Ensure that agricultural policies include NTFP, mushrooms, and native plants as eligible crops and aquaponics as a cultivation practices • Break down the silos and barriers between forestry, fisheries, and land-based production by cross referencing projects and forming inter-disciplinary tables • Ensure that Food and Food Security initiatives have a mandate and home within the Provincial Government Framework (e.g. 'Ministry of Agriculture and Food') • Establish regulatory framework for harvest/sale of wild game (e.g. deer) in remote area
Producers / Processors	• Develop and participate in a peer support and lobbying group • Write letters to and share data and concerns with government representatives
Restaurants / Retailers	• Develop local purchasing and healthy food policies

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Goal #6	Increase Soil and Water Resources
Individuals	• Start a backyard compost and donate the compost to a local producer • Reuse and collect rainwater and clean grey water where appropriate • Research and use design and maintenance systems that recycle materials, include perennial edibles, and use mulches / green manures to conserve water and build soil
Organization	• Share educational materials and support compost and rainwater harvesting efforts • Act as central contact point for tree service companies with regards to wood chip drop-offs • Develop a composting resource platform, where businesses, residents, and marine stakeholders can distribute and obtain organic matter • Apply for a kelp harvesting license for compost fodder • Facilitate joint purchases and transport of rainwater harvesting and storage systems
Municipal Governments	• Fund business and feasibility planning for community composting • Shred paper waste for composting operations • Hold public workshops on water conservation and rainwater harvesting. • Implement rainwater harvesting and storage rebates • Participate in regional initiatives concerning organic waste management • Offer municipal compost to producers at reduced cost • Consider growing 'brown' matter for compost on municipal land (alder, hemp, other) • Require water conservation and rainwater harvesting systems in new developments • Work with Barkley Sound Community Forest to access wood waste for composting • Research options and develop policy around separation of biosolids from other organic waste
Regional Government	• Fund business and feasibility planning for composting initiatives in coastal regions • Include marine compost and offal in regional composting initiatives • Lobby stakeholders to compost fish and marine waste within coastal region
Nuu-Chah-Nulth Government/ Councils	• Provide education to members about composting and water conservation • Develop and manage a community composting centre • Install rain water harvesting systems in agricultural operations and community gardens • Apply for grants for fog water collection and related research projects in offshore communities
Provincial Government	• Fund business and feasibility planning for composting initiatives • Ensure policies support keeping fish and marine waste within the Region for composting • Fund purchase and installation of rainwater harvesting and storage systems
Producers	• Collect compost and compostable waste from residents and businesses • Keep small livestock such as rabbits to recycle green waste and generate manure • Research and use design and maintenance systems that recycle materials, include perennial edibles, and use mulches / green manures to conserve water and build soil • Share composting resources such as wood chippers/shredders • Consider establishing aquaponics systems to deliver plant nutrients and recycle water • Grow crops as carbon fodder in a composting program • Apply for a kelp harvesting license for compost fodder • Install rain water harvesting and storage systems
Processors	• Install rain water harvesting and storage systems • Route fish plant offal and other organic waste to a composting program
Restaurants / Retailers / Businesses	• Sort waste according to waste types, including compostables • Shred paper and contribute food scraps to composting operations • Consider hiring a specialist to develop innovative composting schemes, such as blower or high heat, with the funds that currently go to waste tipping fees

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Goal #7	Ensure Culturally-Appropriate Food Production and Branding
Individuals	- Observe and tend the natural food systems within the environment - Foster 'wild' area, learn about the benefits of 'weeds' and proper foraging etiquette
Organizations	- Ensure workshops include food that is locally available, easy to grow, and indigenous - Include food stories, historical anecdotes, and local terroir in tourist promotions - Reach out to elders when developing programs in order to share traditional techniques and knowledge about native plants and harvesting practices - Create a branding contest for a local logo and slogan for regional food
Municipal Governments	- Promote restoration of native plants and damaged ecosystems - Foster wildlife borders & corridors, diversity, and natural ecology in municipal plantings
Regional Government	- Support development and implementation of a coastal brand - Promote and support environmentally friendly agricultural practices in the region
Nuu-Chah-Nulth Government/ Councils	- Support development of a formal network of Nuu-Chah-Nulth people who are engaged in traditional harvesting and related food traditions - Share traditional practices and history, with a focus on regenerative land management - Facilitate workshops promoting and sharing info about healthy lifestyles and traditional food and medicines, including harvesting, hunting, and preparation techniques - Convene member gatherings to discuss bioregional food and cultural practices, such as family gardens, and share info with outsiders with how the Nation would like to portray them and help uphold ancestral plant protocols - Develop and share a framework for marketing and branding on the coast that is culturally appropriate and upholds traditional protocols
Provincial Government	Provide funding for regional branding campaigns
Producers / Processors	- Include local and indigenous ingredients within recipes and value-added products (e.g. salal, fir tips, kelp, sea asparagus etc.) - Include stories and historical anecdotes in sales promotions
Restaurants / Retailers	- Develop regional food sections or menu highlights including bioregional and cultural information related to food - Include stories and historical anecdotes in sales promotions
Goal #8	Expand and Diversify Seafood Operations
Individuals	- Eat more local seafood - Involve children in seafood harvesting and marine industry experiences
Organizations	- Facilitate Marine 'Farm Tours' and educational events about the seafood industry - Research and share models of sustainable shellfish and seafood operations Producer Associations: Recruit members and lobby Governments
Municipal Governments	- Engage seafood producers in planning initiatives: recreational/tourism programming, infrastructure developments, foreshore/harbour front considerations, or other - Ensure local policy and bylaws allow for dock sales and marketing
Regional Government	- Collate list of marine producers, production levels, and processing facilities - Conduct a series of stakeholder engagement session, and conduct a SWOT-type analysis of local seafood industry - Make further recommendations for local support, publish and share results
Nuu-Chah-Nulth Government/ Councils	- Share knowledge about the range of food traditionally harvested from the sea - Employ members in marine harvesting initiatives - Map and preserve traditional oyster and shellfish beds - Develop seafood infrastructure projects and food storage facilities (coolers/freezers) - Purchase and manage community-accessible equipment

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Provincial Government	- Promote employment opportunities that keep people in traditional marine livelihoods - Develop PR campaigns for BC's seafood industry that promote less-consumed products (e.g. oysters & shellfish) and enhance appreciation and stewardship of sensitive coastal habitats - Map and preserve traditional oyster and shellfish beds - Develop a matrix of marine species being cultured in BC, other than fin fish, and their potential in the region including; historical production, processing requirements, required volume for economic feasibility, and any other species impediments/limitations - Ensure that marine production is an eligible activity in agricultural programming, or that alternate programs exist for marine producers - Increase funding support for value-added initiatives for current catches - Fund automation equipment in order to support production hikes for the export market - Develop a regulatory framework that better supports direct distribution of seafood products within coastal communities (dock sales; direct restaurant/retail store sales) - Work with Federal govt. to reduce regulatory hurdles, overlaps, and multi-level permits - Ensure BC and the Maritime provinces have similar aquaculture programs to eliminate competitive disadvantage - Follow the recommendations of the 2018 Wild Salmon Committee report, particularly those of <i>Goal 3: Protect and enhance the economic, social and cultural benefits that accrue to BC communities from wild salmon and other seafood resources.</i>
Producers	- Work together to develop Community-Supported-Fishery operations (See Table Note 5) - Tap into existing export markets - Tap into labor opportunities through work/stay and volunteer networks (See Resources, Appendix 1) - Consider agri-tourism events for promotional and financial inputs
Processors	- Route waste to composting operations or develop composting infrastructure - Keep processing opportunities available to other producers at the local level - Access grants to develop secondary fish processing facilities locally (e.g. fish sticks)
Restaurants / Retailers	- Include special sections in stores or menus with local seafood and industry information - Cultivate relationships with local producers and processors
Other	Bank/Credit Unions - Include marine producers and processors in low/no-interest agricultural loan options. Allow marine leases to be used as collateral for loans.

To Support All Goals - The 3 Key Activities:

1. Produce Compost
2. Establish a Coastal Agriculture Roundtable (CAR)
3. Support a Coastal Community Coordinator

Note 1: Octopus Garden - Suggested during engagement sessions, this multi-governmental initiative would develop a joint agricultural project, sharing resources such as knowledge, equipment, labor, and markets and conducting inter-community trades within the ACRD's coastal region. The project will meld traditional practices and cultural paradigms with contemporary innovations to create a new and culturally-appropriate agricultural system.

Note 2: Seed Library - Seed Libraries allow growers to share seeds and support the development of acclimatized strains and are based on a take-some/leave-some approach. The Port Alberni branch of Vancouver Island Regional Library currently manages a Seed Library.

Note 3: Nutrition Coupons - The BC Farmers Market Association provides low-income families with coupons to purchase agricultural products at eligible Farmers' Markets. However, these markets must have more than 51% of tables occupied by primary producers, processed, or prepared foods.

Note 4: Restaurant Tax - Suggested during engagement sessions; similar to a Hotel Tax but used to fund coastal agricultural initiatives. It is hidden in the restaurant bill, and residents could be given an annual credit to offset it.

Note 5: Community Supported Fishery (CSF) - Similar to a CSA, in this model consumers purchase a share of various marine products at the beginning of the year and receive regular 'boxes' of available product. Skipper Otto is a model program which delivers product Canada-Wide.

Appendix 1: Agricultural Grants and Business Resources

Appendix 1: Grants and Business Resources

The following grants, programs, and business resources generally support food and agricultural initiatives. Check websites for current information and databases for even more programs.

Grant Opportunities

Agricultural Area Planning Program

- <http://iafbc.ca/funding-opportunities/ag-planning/>

Agriculture and Agri-Food Adaption Programs

- <http://iafbc.ca/funding-opportunities/adaptation/>

Agri-Food and Seafood Market Development Program

- <http://iafbc.ca/funding-opportunities/market-development/>

Agri-Food Environment Initiative

- <http://iafbc.ca/funding-opportunities/aei/>

Agri-Food Futures Fund

- <http://iafbc.ca/funding-opportunities/agri-food-futures-fund/>

Agri-Innovation Program

- <http://iafbc.ca/funding-opportunities/innovation/>

BC Agriculture and Food Climate Action Initiative

- <https://www.bcagclimateaction.ca>

BC Agri-Business Planning Program

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/agri-business-planning-program>

BC Indigenous Agriculture Development Program

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/indigenous-agriculture-development-program>

BC Rural Dividend Fund

- <https://www2.gov.bc.ca/gov/content/employment-business/economic-development/support-organizations-community-partners/rural-economic-development/rural-dividend/program-details2>

Buy BC Cost-Shared Funding

- <http://iafbc.ca/buy-bc/cost-shared-funding/>

Bee BC

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/bee-bc>

Appendix 1: Agricultural Grants and Business Resources

Beneficial Management Practices Program

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/beneficial-management-practices>

Coastal Community Credit Union Corporate Sponsorship

- <https://www.cccu.ca/Business/InOurCommunities/CommunityFundingPrograms/CorporateSponsorships/>

Co-op Community Spaces

- <https://www.co-op.crs.communityspaces/funding>

Epicure Foundation

- <https://epicure.com/en/about/epicure-foundation>

Evergreen Seeds of Change

- <https://www.evergreen.ca/our-projects/1-seeds-of-change/>

Farm to School BC

- <https://farmtoschoolbc.ca/grants/>

Food and Beverage Processing Initiative

- <http://iafbc.ca/funding-opportunities/food-beverage/>

Island Coastal Economic Trust

- <http://www.islandcoastaltrust.ca>

McConnell Foundation

- <https://mcconnellfoundation.ca/initiative/sustainable-food-systems/>

Neighbourhood Small Grants

- <http://neighbourhoodsmallgrants.ca>

Plan H

- <https://planh.ca/training-support/funding>

Real Estate Foundation of BC

- <http://www.refbc.com/grants>

Strategic Outreach Initiative

- For educational events, contact Jill Hatfield jill.Hatfield@gov.bc.ca

System Change Grants

- <https://www.vancouverfoundation.ca/grants/systems-change-grants>

Whole Kids Foundation

- <https://www.wholekidsfoundation.org/schools/programs/6747>

WorkBC

- <https://www.workbc.ca/Employment-Services/Community-Workforce-Response-Grant/Indigenous-Communities.aspx>

Appendix 1: Agricultural Grants and Business Resources

Programs

Agriculture in the Classroom

- <https://www.bcaitc.ca/homepage>

Agri-stability

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/agriculture-income-protection>

BC Oyster Recovery Fund

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/bc-oyster-recovery-fund>

Crop Loss and Damage Due to Wildlife

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/crop-loss-damage-due-to-wildlife>

Environmental Farm Plan Program

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/environmental-farm-plan>

Premises ID Program

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/premises-id>

Production Insurance

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/production-insurance>

Traceability Knowledge Transfer

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/traceability-knowledge-transfer>

Business Supports and Services, and Industry Associations

Agri-Service BC Webinar Programs

- <https://www2.gov.bc.ca/gov/content/industry/agriservice-bc/webinars>

BC Land Matching Program

- <http://youngagrarians.org/tools/land/bc-land-matching-program/>

Community Futures Alberni-Clayoquot

- <http://www.cfac.ca>

Farm Business Advisory Services

- <https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/farm-business-management/fbaprogramoverview.pdf>

Appendix 1: Agricultural Grants and Business Resources

Farm Credit Canada

- <https://www.fcc-fac.ca/en.html>

Farmers' Institutes

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/farmers-and-womens-institutes>

Farm Practices in BC Reference Guide

- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/strengthening-farming/farm-practices-in-bc-reference-guide>

Island Chef's Collaborative

- <http://www.iccbc.ca>

Nuu-Chah-Nuulth Economic Development Corporation

- <https://www.nedc.info>

Small Scale Food Processor Association

- <https://www.ssfpa.net>

Women's Enterprise Centre

- <https://www.womensenterprise.ca>

Young Agrarians' Farm Business Tools Database

- <http://youngagrarians.org/tools/business/>

Young Agrarians' BC Land Access Guide and Lease Templates

- <http://youngagrarians.org/young-agrarians-bc-land-access-guide-lease-license-templates/>

Search Tools and Databases

- <https://www.civicinfo.bc.ca/grants>
- [Government of BC Economic Development](#)
- <https://bcfoodsecuritygateway.ca/funding/>
- <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs>
- <https://bcac.ca>
- <http://iafbc.ca/funding-opportunities/>

Appendix 2: Existing Coastal Assets

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To add your organization, business, or resource to an online database, go to <https://foodatlas.ca>

Processors and Processing Facilities

- Bolton Spice Company, Tofino
- Chocolate Tofino
- Canadian Kelp Resources, Bamfield - Kelp products
- Fishful Thinking, Ucluelet - Fish processing and packing
- Nova Harvest, Bamfield - Shellfish seed and algae
- Pacific Rim Distilling, Ucluelet
- Picnic Charcuterie, Tofino - Cured meats, preserves, and cheeses
- Raven Lady, Ucluelet - Oysters
- Slick Licks Pops, Tofino - Handcrafted popsicles
- St Jean's Cannery - Central Island
- Summit Bread, Tofino
- Tofino Salt Co. - Pure flaked sea salt
- Tofino Brewing Company - Beers and tasting room
- Tofino Coffee Co.
- Tofino Community Food Initiative - Food preserves, workshops and sales
- Tofino Distillery - Vodka and Gin
- Tofino Kombucha
- Trilogy Fish Company - Fish processing and packing
- Zoe's Bakery, Ucluelet

Distributors and Suppliers

- Ordinary Corner Nursery (OCN), Tofino - Soil, plants, seeds, garden supply
- Pacific Earthworks Landscaping Reg's Roots Landscaping, Ucluelet - Seeds, plants
- Tofino Ucluelet Culinary Guild (TUCG) - Farm to Consumer direct distributor, through Good Food Box Program, Farmers' Market Booths, and restaurant/retail network
- Ucluelet Rent-It Centre

Marine Resources

- <https://marineguide.ca/MarineEcosystem/>

Markets

- Ahousaht Market, via TUCG
- Beaches grocery
- Blackberry Cove Marketplace, Ucluelet
- LA Grocery
- Green Soul Organics
- Picnic Charcuterie
- Tofino and Ucluelet Co-ops
- Tofino Public Market, Saturdays, seasonal
- TUCG
- Ucluelet Sunday market

Annual Food Related Events

- West Coast Farm and Garden Show and Seedy Saturday, February
- Feast Festival, April/May
- Tofino Food and Wine Festival, June

Appendix 2: Existing Coastal Assets

- Edible Garden Tours, Summer
- Salmon Festival, October
- Joy of Gardening Fall Festival, November Oyster Festival, November
- Winter Artisan Market, Tofino

Non-profit Organizations

- Bamfield Community School Association: bcsacoordinator@gmail.com
- Clayoquot Biosphere Trust: info@clayoquotbiosphere.org
- Indigenous Food Systems Network: <https://www.indigenousfoodsystems.org/about>
- Eat West Coast: Regional Food Security Hub, eatwestcoast.ca
- Food Bank on the Edge, Ucluelet: edgefood@island.net
- Raincoast Education Society: <https://raincoasteducation.org>
- TCFI: tofinolocalfood@gmail.com
- TUCG: info@tucg.ca
- Tofino Botanical Gardens: info@tbgf.org
- Ucluelet Local Food Society (Formerly UCFL): ukeegrowlocalfood.com

Networking platforms

Facebook:

- Eat Mine Tofino/Ucluelet
- Eat West Coast
- Tofino Community Food Initiative
- Tofino/Ucluelet Beekeepers Forum
- Ucluelet Local Food Society
- West Coast Hobby Farmers (Clayoquoot/Barkley Region)

Vancouver Island Food Atlas:

- Find food security programs and resources for buying local, learning about food, growing food, or finding facilities
- foodatlas.ca

Community Gardens

Ahousaht

- Harvey Robinson, 250-670-2343, harveymrobinson@gmail.com
- Karen Frank, karen.frank@ahousaht.ca

Bamfield

Rae Hopkins, 250-728-3297, rhopkins@island.net

Hesquiaht

- Lisa Sabbas, 250-670-1101, lisa@hesquiaht.ca

Huu-ay-aht

Anacla, Stefan Ochman, stefano@pachena.ca

Tla-o-qui-aht

- Ty-Histanis: Craig Devine, 250-725-3625
- Opitsaht: Ivy Martin, ivymhmartin@hotmail.com

Tofino:

- Tofino Community Food Initiative
- Leah Austin, tofinolocalfood@gmail.com

Appendix 2: Existing Coastal Assets

Toquaht

- Łulcamis Community Garden, Macoah
- Lisa Morgan, lisam@toquaht.ca

Ucluelet

- Ucluelet Community Food Initiative
- Jeanne Keith Ferris, 250-726-4249, jkferris@gmail.com

Yuułuʔiłʔatḥ

- Cixʷatin Centre, Hitacu
- Wya Point Resort Welcome Centre
- Marilyn Touchie, marilyn.touchie@ufn.ca

School Gardens

Bamfield Community School

- Kristin Russell, 250- 728-3352

Maaqtusiis Secondary School (Ahousaht)

- 250-670-9555

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Ucluelet Elementary School

- Carey McPherson, 250-726-7793, cmcperson@sd70.bc.ca

Wickaninnish Community School

- Tofino Community Food Initiative, tofinolocalfood@gmail.com

Appendix 3: Coastal Land Based Producers

Appendix 3: Coastal Land-Based Producers

To add your organization or business to an online database, go to
<https://foodatlas.ca>

Name	Location	Description
Ahousaht First Nation	Ahousaht	• Cranberry production • Sales via TUCG and public • Elementary school field trips to help harvest
Amy McConnell	Bamfield	• 0.2 acres in intensive production at Brady's Beach • Sales to Bamfield store and other residents
Bodacious Oasis	Tofino	• Organic Master Gardeners on about 1 acre in District of Tofino • Intensive mixed production including greens, tomatoes, edible flowers, and plant starts • Interested in cooperative efforts with other small producers
Chad's Bees	Ucluelet	• 2 plus acres of land ALR but not farm status • Products include beeswax soap, honey, propolis tincture, garlic, pollen, greens, local foraged berries, mushrooms - shiitake/oysters, bees/hives, wax candles/creams/lip balms • Interested in land sharing options
Clayoquot Organics	Tofino	• Historical operation, shut down in 2005 • 5000ft in greenhouses + 75 outside beds • Income of \$60K in final year, with 2.5 employees • Shipping by boat and bus with over 30 clients, including wholesale • Marketing was easy and consistent - delivered fresh daily • Had intense, mixed production • Made soil on site with Earthbank fish compost from Ucluelet (about 40 truck loads), organic fertilizers, cedar shavings (composted for 2 years), wood chips, residual vegetation (tomato vines etc), pails of coffee grounds, and chicken coop poop • Surrounded with electric fence (about 1200\$) to deter bears
Sprouts About	Tofino	• Multiple greenhouses on a small piece of land • Started and subsequently sold a successful microgreens company • Currently growing edible flowers, mint, peppermint, and mojito mint to wholesale customers
Hunda Waite	Ucluelet	• Greenhouse gardener, chickens, and ducks on 1.33 acres • Owns Huckleberry Cafe and West Coast Roasters • Sells her eggs, herbs, greens, etc to her cafe • Feeds entire extended family, including children/grandparents
Jamie Bone	Ucluelet	• Past producer - pigs, poultry, vegetables • Created a community compost option (to feed his pigs) • Currently not in operation due to many challenges
Marcie Calloway	Ahousaht	• Raises laying hens and grows produce in a remote Nuu-Chah-Nulth community

Appendix 3: Coastal Land Based Producers

Name	Location	Description
Medicine Farm	Port Albion Area	• 8 hectare, off-grid working farm with volunteer programs • Variety of vegetables and herbs with sales to local restaurants and residents
Michael Poole	Tofino	• 17 acres, with 3000 sq feet of gardening space and 4 deep pond systems, irrigation and water catchment, and small chicken coop • Produces mainly kale, garlic, sun chokes • Sporadic market sales, primarily feeding people who reside on his land
Reg's Roots Landscaping	Millstream	• 3.3 acres outside of Ucluelet • 50x80 ft covered bed, 70x80 ft bed with row tunnels, 12x32 ft greenhouse, and a larger hoop greenhouse • Built soil from chicken/rabbit manure, seaweed, compost, alder chips • Keeps chickens for eggs and rabbits for meat • Sells ornamental plants as well as some edibles, vegetable garden excesses like garlic, greens, kale, squash, peas, eggs. • Sales to individuals, Blackberry Cove Marketplace, TCFI's market booth, and to the school lunch program in Ucluelet
Sarah and John Platenius	Tofino	• 1 acre of land with a variety of gardens to feed family • Primarily greens, peas, beans, potatoes, herbs, zucchini, garlic • Has sold extras at public market and Green Soul Organics • Currently sells cut flowers from farm gate
Tofino Botanical Gardens	Tofino	• Herbs, vegetables, edible flowers, and eggs for use in cafe • Also site of community and botanical gardens.
Tofino Urban Farm	Tofino	• Producing on urban lot • Currently also running a successful community composting operation with 50 residential and 8 commercial clients • Experimenting with a blower compost system
Tom Grieg	Tofino	• 37 acres with about 5 in Property Farm Tax Status • Laying Hens, meat chickens, pasture, and vegetables • Has been cutting pasture for 25 years • Uses composted wood chips to build soil not a lot of soil • Kale and garlic grows particularly well, garlic grows well
Westerly Wynds Farm	Port Albion Area	• Remote 10 acre farm in Barkley Sound, currently for sale • Has BC Property Tax Farm Classification • Products includes eggs, goat cheese, goat milk soap, yarn, fleece, chickens, turkeys, ducks, & Veterinarian services • Sales via farm gate, individual local pre orders, and some restaurants
Wya Point	Tofino/ Ucluelet Junction	• 5 acre parcel with greenhouse and community garden • Operated by the Ucluelet First Nation

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- BC Association of Farmers' Markets Coupon Program. <http://www.bcfarmersmarket.org/coupon-program/about-program>
- BC Agroforestry Atlas. <https://woodlot.bc.ca/agroforestry/>
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