



B.C. LAND MATCHING PROGRAM EVALUATION

FINAL REPORT

DR. HANNAH WITTMAN

PROFESSOR, INSTITUTE FOR RESOURCES, ENVIRONMENT & SUSTAINABILITY
AND FACULTY OF LAND AND FOOD SYSTEMS

CENTRE FOR SUSTAINABLE FOOD SYSTEMS

170-2357 MAIN MALL
UNIVERSITY OF BRITISH COLUMBIA
VANCOUVER, BC, V6T 1Z4



Ministry of
Agriculture, Food
and Fisheries



UBC FARM
Centre for Sustainable Food Systems

Table of Contents

EXECUTIVE SUMMARY	1
KEY RECOMMENDATIONS	2
ACKNOWLEDGEMENTS	3
GLOSSARY	4
THE B.C. LAND MATCHING PROGRAM	5
PROGRAM CONTEXT	5
PROGRAM GOAL, OBJECTIVES & ACTIVITIES	8
THE BCLMP LOGIC MODEL	9
OBJECTIVES OF THE EVALUATION	10
METHODOLOGY	10
DATA SOURCES & COLLECTION	11
WHAT OUTCOMES MATTER IN LAND MATCHING PROGRAMS, AND HOW ARE THEY MEASURED?	11
EVALUATING LAND MATCHING PROGRAMS - THE NORTH AMERICAN CONTEXT	11
WHAT INDICATORS & OUTCOMES DID WE EVALUATE?	15
EVALUATION RESULTS	17
<u>SHORT-TERM OUTCOME - INCREASED INVENTORY OF LAND SEEKERS AND LAND OPPORTUNITIES</u>	
LEVEL OF SATISFACTION OF LAND SEEKERS & LANDHOLDERS WITH THE SERVICES RECEIVED (LAND MATCHING, ONLINE RESOURCES, AND EVENTS) TO INCREASE LAND ACCESS OPPORTUNITIES	18
<u>SHORT-TERM OUTCOME - INCREASED PREPAREDNESS TO MAKE INFORMED LAND ACCESS DECISIONS FOR LAND SEEKERS AND LANDHOLDERS</u>	23
<u>MEDIUM - TERM OUTCOME - INCREASED NUMBER OF COMPLETED LAND ACCESS AGREEMENTS</u>	26
<u>MEDIUM - TERM OUTCOME - INCREASED SATISFACTION WITH LAND AGREEMENTS</u>	26
<u>LONG - TERM IMPACT - EXISTING FARMLAND CONTINUES TO BE FARMED & UNDER-UTILIZED AGRICULTURAL LANDS ARE PUT INTO PRODUCTION</u>	26
CONCLUSIONS & SUMMARY OF INSIGHTS	31
KEY RECOMMENDATIONS	32
BIBLIOGRAPHY	35
<u>FIGURE 1 PROGRAM EVALUATION LOGIC MODEL</u>	9
<u>FIGURE 2 PROGRAM PARTICIPANTS AND UMAP ENTRIES 2016-2019</u>	20
<u>TABLE 1 SYNTHESIS OF POTENTIAL EVALUATION INDICATORS AND OUTCOMES</u>	14
<u>TABLE 2 INDICATORS AND OUTCOMES CONSIDERED IN THIS BASELINE EVALUATION</u>	16
<u>TABLE 3 AVERAGE TIME ELAPSED FROM FIRST POINT OF CONTACT WITH BCLMP TO MATCH</u>	24
<u>TABLE 4 MATCH STATUS BY PROGRAM YEAR AND REGION</u>	26
<u>TABLE 5 PRODUCTION TYPE - MATCHED FARMS</u>	28
<u>TABLE 6 AVERAGE REVENUE FROM MATCHED LAND</u>	29

Executive Summary

Growing new farmers is a complex developmental process that requires strong educational and policy resources as well as viable economic conditions and available agricultural land. In turn, agricultural land provides a wide range of public and private benefits, from ensuring regional food security and climate resilience to protecting biocultural heritage, biodiversity, and water quality, to supporting livelihoods for growers, processors, and distributors within the British Columbia (B.C.) food system.

In B.C., the number of farms declined by over 2,000 from 2011 to 2016, and almost 60 per cent of farmers are over the age of 55. A complex and diverse agricultural economy (B.C. cultivates over 200 land-based commodities) coupled with high entry barriers for new and beginning farmers has challenged B.C.'s agricultural sector to find a stable path to renewal. Access to land (i.e., available, affordable, appropriate, secure, and findable) is the number one barrier for farmers entering the sector (Land for Good 2019; BC Stats 2019).

Since 2016, as a core component of the Young Agrarians "Grow a Farmer" Strategy, the B.C. Land Matching Program (BCLMP) has piloted and expanded land matching and business support and referral services to new farmers looking for land to farm and landholders interested in finding someone to farm their land. The BCLMP supports a long-term shared interest across the province to increase the area in agricultural production and to support the B.C. farming sector by ensuring the viability of a future generation of viable farmers and stable farm businesses. The program aims to balance these goals with the need to ensure high-quality land matching services and support scale-appropriate agreements and farm businesses, reflecting the specific needs of program participants.

The BCLMP's primary **objectives** are to:

- Increase the inventory of potential land and farmland seekers to be matched;
- Facilitate land agreements; and
- Provide educational and business planning resources.

In support of these goals, the BCLMP carries out a wide range of activities, including developing and expanding an online land inventory (the UMAP); providing Land Matching Services, including educational and business development resources and referrals; and supporting networking and relationship building with program partners across the province.

Our research team conducted a process and outcome evaluation of the BCLMP between August and December 2019. This evaluation included a program evaluation survey delivered to 295 participants registered in the program and 69 program partners active in July 2016 - October 2019. We also analyzed program tracking data collected over the same period by BCLMP staff. Evaluation results were recorded across several primary **outcomes** defined as constituting BCLMP "success."

- Increased inventory of land seekers and land access opportunities.
- Increased preparedness to make informed land access decisions for land seekers and landholders.
- Increased number of and satisfaction with completed land access agreements.

The evaluation also considered the program's potential long-term impacts on maintaining a stable and actively farmed land base in B.C. Given the program's recent implementation, the short timeframe from the project's regional pilot in Metro Vancouver 2016 to provincial pilot expansion in 2018 and evaluation in 2019 limits this present evaluation's ability to fully assess long-term program impacts. Despite this limitation, the evaluation found promising growth in the number of matches, acres maintained or

brought into production, improvements in farm stability, satisfaction with the program overall, and the development of a strong network of educational and farm business support program partners across the province.

Finally, we considered the program outcomes of the BCLMP in relation to the needs of B.C.'s New Entrants to Agriculture, which were surveyed by the B.C. Stats program for the B.C. Ministry of Agriculture in January and February 2019.

Land access resources, including land access guides and lease agreement templates, were utilized by 20 per cent of respondents in B.C.'s 2019 New Entrants Needs Assessment, and by 30 per cent of those farming for one year or less. Land linking services were used by 24 per cent of those farming for one year or less. New farmer networking forums were utilized by 51 per cent of new entrants farming for one year or less (BC Stats 2019), signifying rapid reach to a growing participant base even in the early years of the BCLMP roll-out.

Building an inventory of farmland seekers, viable access land opportunities, and the business and legal support networks necessary for long-term farm viability takes time, a diverse range of expertise, and skills in community and program partner relationship building. Long-term success in land matching in B.C. also requires confronting distinct challenges and opportunities related to diverse regional agricultural economies, business models, farmland and capital costs, and access to farm infrastructure and housing.

As such, this evaluation provides a set of key recommendations for future program development for the BCLMP:

Key Recommendations:

- Agricultural investment programs and support services in British Columbia should consider the unique context of cultural and generational shifts in future farming populations and restricted access to farmland for new entrants. In response, programs and support should invest in innovative educational, business development, and land access models to sustain the future farming sector in B.C.
- Support continued investment in a provincially managed land matching program, on a long-term (five years) funding model, to allow the necessary program maturation time to create regionally-based support networks, relationships, and a more extensive inventory of seekers and land opportunities.
- Clearly define necessary staff roles for provincial program expansion, including support for regionally coordinated land matching activities, business and legal training experts able to provide expanded reach for targeted one-on-one support to new entrants, and marketing/outreach staff. Consider new ways to market land access programs to broad constituencies, including current farmers, new entrants, and new immigrants to B.C.
- Engage with new entrant and sustainable agriculture training programs at UBC, KPU, UFV, and TRU to advance business and legal literacy education and curriculum enhancements, with specific resources developed for the range of diversified farming sectors, production models, and market conditions present across B.C.'s agricultural regions.
- Develop webinars for legal literacy and business planning in collaboration with the Young Agrarians Grow-a-Farmer-Strategy.
- Support new programming with lenders to support financial investment in farm businesses operating under a non-ownership land access model.
- Support new programming for public investment in capital infrastructure on shared or leased farmland (e.g., housing, irrigation, shared equipment, mobile greenhouses, etc.).
- Track program outcomes on a three- to five-year cycle, balancing assessment of short, and medium-term outcomes.
- Track program long-term impacts on a 10-year cycle.

Acknowledgements

First and foremost, we recognize that this work takes place on traditional, unceded, Indigenous lands and territories across Canada. As the BCLMP works in response to the evolution of a colonial land title system, it is important to acknowledge the historical impact of agriculture on traditional food provisioning in this region. Working within a truth and reconciliation framework enables us to recognize this history in our shared goals to develop sustainable, equitable food systems for the future.

We would like to thank the farmers, landholders, and partners participating in the BCLMP program for their insights. The evaluation team is also grateful for the dedication of the BCLMP staff, and especially its land matchers who provided key support in the evaluation process. Thank you to the members of the BCLMP Evaluation steering committee who shared their expertise to make this evaluation as thorough as possible. Lastly, we would especially like to acknowledge and thank Adrian Semmelink (1991-2020) for his leadership in making this evaluation possible, and his dedication to new farmers in B.C.

The B.C. Land Matching Program is funded by the Province of British Columbia, with support from Columbia Basin Trust, Cowichan Valley Regional District, Real Estate Foundation of BC, Bullitt Foundation, Metro Vancouver, Vancity, and the Regional District of North Okanagan.

Glossary

This glossary provides definitions of terms as they are utilized in this evaluation document. For more discussion on the ways that these terms are variably defined in the literature, see Land for Good (2019); Perez et al. (2020); Hersey and Adams (2017) and Budwani and McDavid (2012).

Access: Land Access addresses availability, appropriateness, affordability, security and findability, in pursuit of secure **Land Tenure** (land use rights).

Farm Transfer: passing a farm business and/or farmland from one generation or owner to another. Other related terms often used interchangeably are “farm succession” and “farm transition.”

Indicator: specific, observable phenomenon contributing to a broader program outcome able to be measured quantitatively or qualitatively.

Landholder: the person, group, or entity that holds use rights to land. Land can be held privately, publicly, or in “trust”. Landholders can be farmers (current or retired), farm families and their heirs, non-farmers, organizations, and various levels of government.

Land matcher: staff member of the BCLMP providing facilitation services for land matching, program development, referrals to educational and business education resources.

Land seeker: anyone seeking to access land for their farm business – including prospective new entrants, new and beginning farmers, and current farmers intending to expand or shift their current farm enterprise.

Link: to make or form a connection, bring together. Examples: farmer and landholder are in contact, connecting with resources or opportunities via a Land Matcher, facilitated introductions, participating in an event, registering with UMAP.

Listing: entry uploaded to the UMAP (farmland opportunity or land seeker profile).

Match: Signed land access agreement (lease or license) between a landholder and land seeker registered with the BCLMP.

- Completed: land access agreement went full term.
- Ongoing: land access agreement within original terms.
- Terminated: landholder or land seeker exited land agreement prior to full term.

Participant: A person who has been in contact with the BCLMP (i.e. initial inquiry, attending an event, utilizing educational and business resources.)

Program Goal: The broad statement of program intent.

Program Input: Resources (both internal and external) influencing the achievement of Program Goals.

Program Objective: The specific, measurable targets that the program aims to achieve within a specific timeframe and resource framework.

Program Activity: Tools or actions taken for the program to achieve its objectives (such as the UMAP database, online documents and resources, events, and social networking).

Program Outcome: Measurable change directly resulting from a program’s activities.

Program Impact: Long-term changes, which usually take place or become visible several years after an intervention and are mediated by external conditions and broader systems-wide or collaborative initiatives with partner programs.

Registrant: Formally registered as a member of the BCLMP

The B.C. Land Matching Program

PROGRAM CONTEXT

The challenge of an aging farm population, farmland consolidation and speculation, and fewer young farmers is a complex developmental process that requires a range of educational and policy resources as well as viable economic conditions and available agricultural land. In turn, agricultural land provides a wide range of public and private benefits. Some of these include ensuring regional food security and climate resilience to protecting biocultural heritage, biodiversity, and water quality, supporting livelihoods for growers, processors, and retailers within the B.C. food system.

British Columbia provides a unique context for growing the next generation of farmers, with less than 5 per cent of the provincial land base suitable for agricultural production, and much of that land isolated from urban markets. The number of farms declined by over 2,000 from 2011 to 2016, almost 60 per cent of farmers are over the age of 55, and less than 7 per cent of B.C. farms have written succession plans (B.C. Ministry of Agriculture 2016). A complex and diverse agricultural economy (B.C. produces over 200 land-based commodities) coupled with a limited land basis and competition from international agriculture has challenged the B.C. agricultural sector to find innovative and stable pathways to agricultural renewal and resilience.

In an early response to these challenges, in 1973, B.C. created unique zoning protection for agricultural land in the form of the Agricultural Land Reserve (ALR). However, non-farm uses of farmland and land speculation have driven up the cost of farmland in B.C., making access to affordable land the number one barrier for farmers entering the sector (Curran & Stobbe 2010; Sussman et al. 2016; Tatebe et al. 2018). By some estimates, up to 50 per cent of the ALR land in some regions, including Metro Vancouver and the Fraser Valley, is not currently in agricultural production (Tatebe et al., 2018; B.C. Ministry of Agriculture 2016). Much of this uncultivated land is not available for farming due to agronomic unsuitability, isolation from markets, or is under alternate land use. As such, the loss of viable farmland to financial speculation, near urban markets, in particular, puts the future of B.C.'s food security, the economic growth of agriculture, and the ecological stewardship of B.C.'s agricultural lands at risk.

There are several promising signals, however, of a potential reversal of these trends. The number of young farmers under 35 increased by 11 per cent between 2011 and 2016 to almost 7 per cent of the total, signaling an important renewal opportunity in the B.C. farming sector. Increasingly, new farmers emerge from non-farming backgrounds, making access to land, new forms of knowledge sharing, and development of new educational and agricultural training opportunities a priority concern (Wittman, Dennis & Pritchard 2017; BC Stats 2019). B.C.'s educational institutions have invested in new farmer training programs. Several regional and local farmland trust organizations have begun to work on securing land for community farming and local agricultural development projects (FFCF 2016).

The 2019 New Entrant Needs Assessment prepared for the B.C. Ministry of Agriculture indicated that approximately half of new entrants now farming in B.C. were not raised on a farm; 40 per cent were pursuing farming as a second career, and 37 per cent were raised predominantly in an urban environment (BC Stats 2019). While many new entrants to agriculture are able to own farmland (77 per cent of respondents in the New Entrant Needs Assessment), for those 35 and under, this figure falls to 14 per cent. For new entrants leasing land, over half leased from an acquaintance or family member, and just 39 per cent had a written lease agreement. To put this in context, across Canada, over 50 per cent of farmers under 35 lease land, compared to 35 per cent of farmers over 35 (Statistics Canada 2016). Over 20 per cent of farmers over the age of 70 also rent some land to others, often to supplement their income or transition to retirement (Statistics Canada, 2017). In addition to the affordability and availability of suitable farmland, over half of the new entrants in B.C. experience challenges with a lack of capital and financing

(BC Stats 2019). As such, providing viable alternatives to ownership are imperative, especially for new entrants starting on farming careers for the first time without access to family-owned land, infrastructure, or capital, and in areas where land prices are prohibitively high due to land speculation, competition from residential and industrial development, and urban expansion.

Land matching is a field of programming that addresses the challenge of affordable land access by providing a range of services for land seekers and landholders. Land matching challenges vary across regions, and as such, land matching programs vary in design, practice, and outcomes. For example, B.C.'s Metro Vancouver/Fraser Valley region exhibits higher land values and increased market access. In comparison, lower population densities and dispersed market infrastructure in B.C.'s northern regions may influence lower land values but pose other challenges to starting a new farm business.

Land access programs have been a topic of discussion for several decades in Canada. In B.C., the Agricultural Land Commission (ALC) formed a short-lived Property Management Branch in the early years of the ALR to "enhance agricultural opportunities" by holding ALR property in trust for long-term rentals to new farmers (Garrish 2003; Sands, personal communication; B.C. Ministry of Agriculture, 1975). The ALC aimed to "assist farmers who wish to retire but cannot sell their farms on the open market. These farms will be offered to young farmers on a lease arrangement to offset the high cost of establishing new farms" (B.C. Land Commission, 1975). Land in the "Lease Program" also included land held by the Highways Ministry, the Lands, Parks and Housing Ministry, and the Ministry of the Environment (B.C. Land Commission, 1984). Criteria for lessee selection in the B.C. government land leasing program of the 1970s included:

- Preference for a relatively young person and in good health, i.e., a young person could be defined as one who can reasonably expect at least a 20-year career.
- Preference for a person who is presently, or is intending to be, a full-time farmer.
- Preference for a person who is already in, or is proposing, a family-run farm operation (marriage of the operator is not a requirement).
- Preference for a person who is in the process of building up a viable, full-time, farm operation. (Ministry of Agriculture, 1975).
- The lessee should demonstrate a genuine need for the land, either as a complete farm unit, or as an addition to an existing farm unit.
- The lessee should have had a reasonable amount of experience in working on a farm (taking age into account) and should demonstrate a basic level of knowledge about agricultural techniques and farm operations.
- The applicant should have adequate resources (dollars and machinery) and/or an adequate credit source to be able to farm efficiently.
- The lessee should be a motivated individual with a serious intent to make the farm operation successful. (B.C. Land Commission, 1975).

As such, even in the early days of the ALR, there was a recognition on the part of the Ministry of Agriculture that supporting agricultural growth would require facilitation for land access and land matching, in addition to farmland protection through agricultural zoning. Yet, the lack of government and farm sector consensus on the extent to which such a provincial land leasing program constituted a 'subsidy' shelved the program before it truly got off the ground. In addition, criteria for defining "need", "amount of experience", "adequate resources", and "motivation" also lacked consensus.

In 2010, the Brome-Missisquoi County (MRC) in Quebec commissioned an Agricultural Land Access Strategy for the Development of a Land Bank, responding to a context in which only 1/3 of agricultural land was currently being farmed. In addition, pressure from tourism and housing development was

threatening the further loss of farmland. The goal of the Land Bank was to “facilitate the conclusion of lasting partnerships between aspiring farmers in need of land and non-farming landowners in the green zone, who wanted to preserve the agricultural and landscape potential of their land” (Arterre, n.d.). The ARTERRE Land Bank program was developed in 2011 to provide a management organization, website, and land matching service for the province to: “encourage the development of young agricultural enterprises, strengthen agriculture in the region, and create a more active rural area for the benefit of the community”. The Arterre Land Bank methodology focuses on the “quality of contact between a landowner and farmer, which will determine the quality of a match; the main focus of the service is on the human aspect and good relations between both parties.”. Support for legal, extension, and business assessment was conducted in partnership with other Quebec agencies, as part of a continuum of new farmer support services in the province.

This provides a consistency of services available to new entrants in the sector that enables new farmers to access a variety of support mechanisms including start-up grants, loans, technical extension, and business counselling to support the business plan process and development. These services are available to new entrants in Quebec for the first five years of a new farm business. As a partnership mechanism between local governments and a non-profit, Quebec counties can currently access a Provincial fund that allows them to sign up for three years of the service. After the three-year period, Counties will assess the service and how it is developing in their region, and then work on a year to year basis to renew their matchmaker position. ARTERRE provides the job description for the role, assesses the number of days that the matchmaker would need to work in the region, conducts training, provides a centralized database matching system for internal usage, a website for the public, and a virtual office to animate a community of matchmakers. ARTERRE organizes annual matchmaker networking and educational opportunities to support skills development. (Arterre, n.d.) Building on the Arterre methodology, and in response to the same conditions facing the B.C. agriculture sector since the 1970s, in 2013, [Young Agrarians](#) (YA) developed a B.C. Land Access Guide, Lease, and License templates, and Land Linking workshops as part of their “Grow a Farmer” strategy. YA is a Canadian resource network for new and young farmers that began in 2012. In addition to land access services, YA offers new entrant support programming such as online aggregation of resources and opportunities, community building educational events, and farmer-to-farmer business mentorships.

In 2016, YA piloted a land matching program methodology in the Metro Vancouver/Fraser Valley region. Funded by a wide range of supporters, including the Province of B.C., municipal governments, and foundations, the Young Agrarians adapted the Arterre system of regional Land Matchers and training resources for new entrants to agriculture used in Quebec. In 2018, the B.C. Ministry of Agriculture provided additional funding to YA to expand land matching to Vancouver Island, the Okanagan, and the Columbia Basin, as well as to support continued programming in the Metro Vancouver/Fraser Valley region. With AGRI’s financial support, the land matching program became known in 2018 as the B.C. Land Matching Program (BCLMP).¹ In April 2019, the BCLMP expanded into Central and Northern B.C. The BCLMP land access resources were utilized by 20 per cent of respondents in B.C.’s 2019 New Entrants Needs Assessment, and by 30 per cent of those farming for 1 year or less. Land linking services were used by 14 per cent of respondents overall, and by 24 per cent of those farming for 1 year or less (BC Stats 2019).

¹ Funders include: **2016:** Vancity, Real Estate Foundation of BC (REFBC), Province of B.C.; **2017:** Province of B.C., REFBC, Vancity, Metro Vancouver; **2018:** Bullitt Foundation, City of Surrey & Township of Langley; Province of B.C., Vancity, Metro Vancouver. Columbia Basin Trust (CBT) & Cowichan Valley Regional District (CVRD). **2019:** Province of B.C., CBT, CVRD, Metro Vancouver Regional District; Vancity, Bullitt Foundation, REFBC & Regional District of North Okanagan.

PROGRAM GOAL, OBJECTIVES & ACTIVITIES

The BCLMP's current **goal** is to provide land matching and business support services to new farmers looking for land to farm, and to landholders interested in finding someone to farm their land. The BCLMP supports a long-term shared interest across the province to increase the area in agricultural production, and to support succession of the B.C. farming sector by ensuring a future generation of viable farmers and stable farm businesses. New entrants in B.C., specifically, were identified as desiring reliable, regionally specific information and resources, mentorship opportunities, online educational workshops, and new farmer networking forums (BC Stats 2019). The BCLMP aims to balance these goals with the need to ensure high-quality land matching services and support scale-appropriate agreements/farm businesses reflecting the specific needs of program participants.

To achieve this **Goal**, primary **Objectives** of the BCLMP include:

- Increase inventory of potential land and seekers to be matched
- Facilitate Land Use Agreements
- Provide educational and business planning resources

The primary **Activities** of the BCLMP are:

Develop, Expand and Maintain an Online Land Inventory. This resource – the [UMAP](#) – documents land matching opportunities for new farmers and landholders. The UMAP (1.0) was launched in 2013 as a crowd-sourced mapping resource for new farmers to help them find education, training, community, business planning, and marketing tools, seeds/supplies, and land. When the YA Land Matching Program Pilot launched in Metro Vancouver in 2016, the UMAP was updated to 2.0 and made mobile friendly. As part of the upgrade, Land Listings and Farmer Looking for Land Listings forms were added to serve as an inventory tool for the Land Matching Program. Not all BCLMP participant listings are publicly viewable on the UMAP. Some landholders request private listings, and listings are unpublished if a match is made or a participant requests it.

Land Matching Services. Land matchers facilitate land access for farmers by developing a regional network to grow the base of engaged and informed landholders and new and potential farmers. Regional land linking workshops are held annually to increase knowledge of and participation in the program and educate participants around land sharing and land access agreements. Land matchers work to screen farmers seeking to start farm businesses for enterprise readiness and connect them to business supports and other available resources. They screen land opportunities for agricultural viability and assist landholders to clarify their land usage vision and terms. Land matchers provide hands-on, personalized matchmaking to support land seekers to find the most suitable land opportunities for their farm projects; and support landholders to find the most suitable farmer(s) for their land opportunities. Finally, when a match is identified, Land Matchers facilitate negotiations between parties; provide a final legally reviewed contract between parties; and follow-up to ensure good land matches (this can include a site visit, as well as referrals to other services and supports, along with on-going technical questions to the Land Matcher). Land matchers also liaise with experts in the sector, skilled in the business, structural, and legal aspects of farming, and farmland and business transfer to support the on-going development of resources and referral networks.

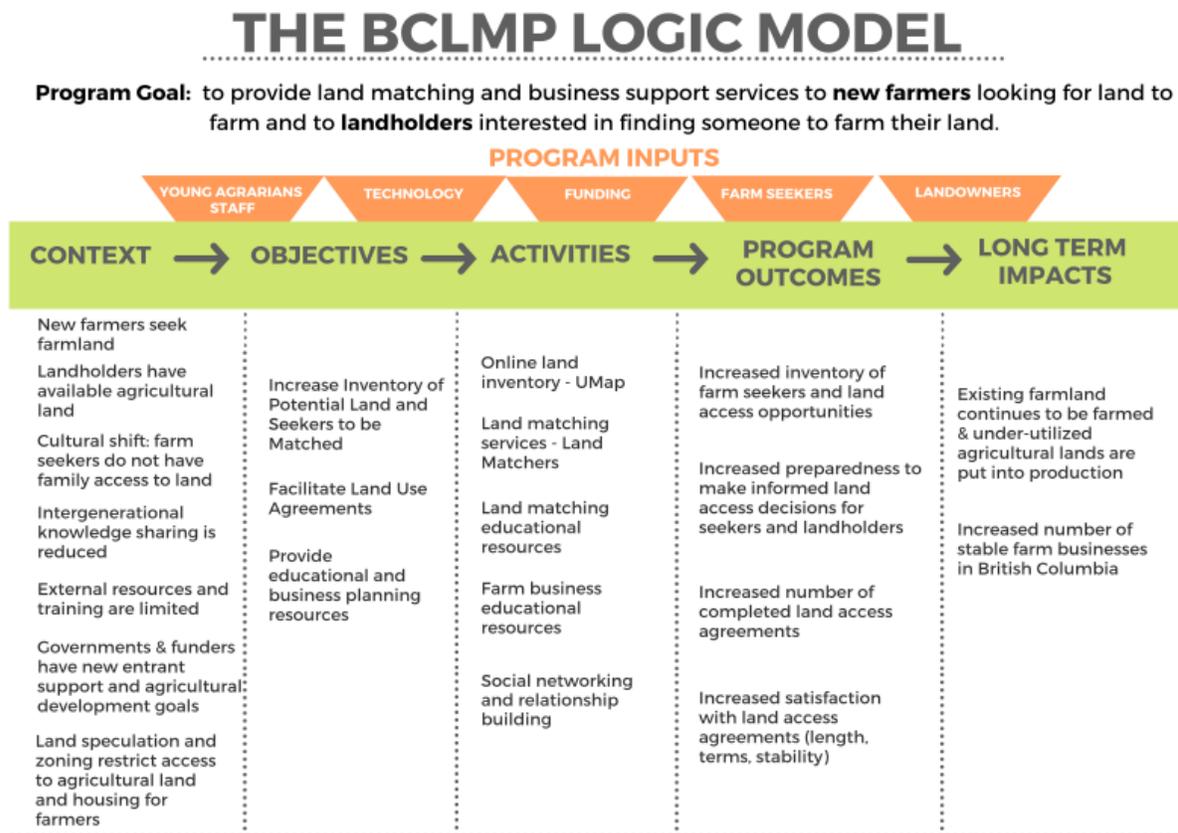
Develop Educational and Farm Business Resources. BCLMP educational events and resources include the B.C. Land Access Guide, lease and license templates, referrals to farm transition and succession resources, land linking workshops, and the land blog. To support enterprise readiness after a successful land match, BCLMP works closely with the Young Agrarians Business Mentorship Network (YA BMN). Currently in its sixth year, the YA BMN annually matches 10-12 new farmer/startups with experienced farm business

mentors, and supports BCLMP participants to apply for 1:1 business readiness support through the YA BMN. BCLMP also refers participants to other regional resources such as the Ministry of Agriculture’s Agri-Business Planning Program or the Kootenay and Boundary Farm Advisor’s Program, for example.

The BCLMP Logic Model

A logic model is a visual aid that illustrates a program’s goals, inputs, objectives, activities, and expected outcomes given a specific context. Through interviews with BCLMP staff and stakeholders and analysis of program documents, as well as a review of other land matching program methodologies in North America, we established a logic model to characterize the process (including context, activities/mechanisms, and program outcomes). This model leads to the desired long-term impacts of the BCLMP: to grow the agricultural sector in British Columbia by ensuring that existing and underutilized farmland continues to be farmed by future generations of farmers.

Figure 1 Program Evaluation Logic Model



Objectives of the Evaluation

This evaluation provides a context-specific baseline for evaluation of the BCLMP and recommendations on how to best assess the program framework and outcomes over time, based on the established logic model.

Land matching programs such as the BCLMP can contribute to land matches and the development of new farm businesses. There are also other outcomes that are of interest to the Ministry of Agriculture, as well as to the broader stakeholder community including aspiring and retiring farmers, local agricultural development teams, and industry groups. As such, this evaluation considers:

- What factors and mechanisms may contribute to successful matches?
- How is land matching success defined by new farmers and landholders?
- What are the *potential* economic outputs of these matches (e.g., farm revenue, production type and amount, area in production)?
- How can the BCLMP be improved?
- What outcomes should the BCLMP be tracking?

Methodology

We used an *integrated evaluation perspective* (Chen 2014), which considers diverse stakeholders' needs, views, and practices as well as the surrounding political, economic, and social context of the BCLMP. Our approach acknowledges the program's evolving nature while also following methods to ensure that the evidence produced is valid and reliable. As such, we used a process evaluation methodology that analyzes the context and range of mechanisms associated with program outcomes. Contribution analysis looks at the factors contributing to program outcomes, acknowledging that many factors come into play for success, including the surrounding social, political, and economic context of program implementation. In other words, process and contribution analyses consider the "underlying theory of change by which an intervention is expected to produce impacts, including, but not limited to, understanding the activities of the intervention itself, the underlying assumptions based on which the intervention is proposed to work, and the relative influences of external factors on the intervention in achieving observed outcomes" (Budwani and McDavid 2017, p. 3). Our evaluation methodology was approved by the UBC Behavioral Research Ethics Board on November 4, 2019.

To support the evaluation, we established a BCLMP evaluation steering committee, which provided input towards the evaluation process and reviewed key evaluation documents. Membership of the steering committee included:

- Adrian Semmelink, New Entrant Agrologist, B.C. Ministry of Agriculture
- Brigitte Dumont, Executive Director, Centre de Référence en Agriculture et Agroalimentaire du Québec
- Darcy Smith, BCLMP Manager, Young Agrarians
- Katie Galliazzo, Regional Development Agrologist, B.C. Ministry of Agriculture,
- Kathryn Ruhf, Senior Advisor, Land for Good
- Sara Dent, Executive Director, Young Agrarians
- Sarah Clements, Market Crop Production and Practicum Instructor, Tsawwassen Farm School, Kwantlen Polytechnic University

Data Sources & Collection

BCLMP evaluation data covering the period July 2016-December 2019 was sourced from program tracking documents related to participants' engagement with program services and resources. We also developed and delivered a program evaluation survey delivered to 295 participants formally registered in the program (i.e., not all participants in the program formally register as seeking a match) between July 2016 and October 2019, as well as 69 program partners. The survey was open from November 27th to December 11th, 2019. Regional land matchers were responsible for sending the survey link to participants. A total of 98 land seekers, 87 landholders, and 23 program partners completed the survey (total respondents: 208) by December 11th, resulting in a 57 per cent response rate.²

- 62 respondents had completed a land match via the BCLMP.
- 35 respondents were in the process of exploring a match with the help of a Land Matcher.
- 19 respondents indicated that a Land Matcher had introduced them to a potential match, but it was not finalized.
- 12 respondents had met with a Land Matcher but were not actively seeking a match at this time.

Results for individuals registered with the BCLMP were analyzed separately for land seekers and landholders; registered participants with signed leases/matched, registered participants actively pursuing a match, and participants that are registered but not active. Data was cleaned, summarized using descriptive statistics and qualitative responses were coded into response categories corresponding to the program logic model (see below).

What Outcomes Matter in Land Matching Programs, and How are they Measured?

EVALUATING LAND MATCHING PROGRAMS – THE NORTH AMERICAN CONTEXT

The challenge of an aging farm population, farmland consolidation and speculation, and fewer young people considering agricultural careers is a challenge facing many modern agricultural economies. In the US, for example, larger farms dominate agricultural production, and the number of smaller family-run farms has continued to decline.

The Food and Agriculture Organization (FAO) of the United Nations has recently struck a High-Level Panel of Experts to address the global challenge of promoting increased youth involvement in agriculture, including those from non-farming backgrounds. Along with member governments, the FAO advocates a renewal of the agriculture sector particularly in under-supported dimensions such as sustainable agriculture, diversified and perennial cropping systems, and identifying alternative ways to connect farmers, landholders and community stakeholders building resilient local food systems.

There are many external factors to consider in evaluating what contributes to success in a farmland matching program aimed at linking new farmers with land in support of a viable farm business, given these challenges. Beyond the simple economics of speculative land prices, lack of start-up capital, and highly variable market access, these include social factors such as a "lack of trust between retiring and new farmers" and "complex economic, personal, and geographic factors [which] influence farmer's decisions about the future uses of their farmland," including family legacy (Hersey and Adams 2017), a lack of

² This number excludes 14 responses with less than 48 per cent completion rate. BCLMP Program documents indicate that 327 individual people registered in the program between 2016 and 2019 (164 land seekers and 149 landholders). 32 of these program registrants were not included in the survey as they had been de-registered from the program by BCLMP as ineligible, resulting in an evaluation sample of 295 participants (208 total respondents).

agricultural and financial literacy among new farmers, lack of viable succession plans on the part of retiring farmers, and the lack of coordinated supporting policy frameworks that take into account regional market and cultural diversity. Therefore, it is important to understand farmer motivations for participating in a land matching program, and the specific needs of new farmers learning to manage an agricultural business for the first time.

In the US alone, as of 2018, there were more than 50 “farm-link” programs in operation with the common aim of “connecting” farmers and landholders to advance farming opportunities. Many of these programs operate “on a shoestring... responding to a wide range of activities” (Land for Good 2019, 2) in response to local contexts, and as such, provide different services. Given the diversity of land matching contexts, programs, and services, there is a wide range of outcomes and indicators used to evaluate them (Valliant et al. 2019). At the same time, land matching is a relatively new programmatic area rising from demographic and cultural change whereby farmland seekers are increasingly from non-farming backgrounds, and land values have been increasing exponentially (Wittman, Dennis & Pritchard 2017). In the words of Kathryn Ruhf, Senior Advisor with the Land for Good program: “No one disputes the need for accountability in farm link programs. Good programs should be able to demonstrate results, but what constitutes success is one of the most vexing problems facing farm link programs”.

We synthesized eight peer-reviewed studies that examined the outcomes of farmland matching programs, including stakeholder experiences, the feasibility of farm matching programming in their regions, and the processes of land matching. The English-language peer-reviewed evaluation literature did not include any examples of Canadian land matching programs, although we did review program documentation for FarmFolk CityFolk Community Farms Program and the Foodlands Cooperative of BC (e.g., Wittman et al. 2017; FFCF 2016), and the ARTERRE program in Quebec (Arterre, n.d.). We also reviewed materials developed by the Centre for Agroecology and Sustainable Food Systems (Perez et al. 2020) on identifying outcomes for program evaluation in Beginning Farmer and Rancher Training efforts. Best practices for evaluation of the land access aspects of these training programs include assessment in the short-term of the extent to which participants understand how to articulate land needs, have farmland acquisition basics, understand how to identify land suitable for production, and understand the components of a sound lease or license agreement. Medium-term outcomes include developing a farm search and business plan, the assessment of specific parcels for suitability, and the signing of an access agreement. Long Term Outcomes can include secure long-term land tenure, increased land in production for business expansion, and infrastructure improvements to the land (Perez et al. 2020).

The Arterre Land Bank program in Quebec is the land linking program in Canada most similar to the BCLMP. For that program, impact is evaluated through number of matches made, the businesses and jobs that have been created, number of acres put into production, length of agreements, as well as the rural revitalization aspect of having new farm families in a region such as new businesses that open up in an area because there is more local food production, and services that can stay open (like schools, post offices, etc.). The expectations of matchmakers in Year 1 in an area is low. It takes time for the matchmaker to raise awareness of the program through outreach activities, build the inventory of registered land and potential farm businesses, and make matches. By Year 3 the goal is to have 7-9 matches per year. As ARTERRE will expand up to approximately 30 matchmakers, this [is projected to] result in approximately 210 to 270 new farm businesses across Quebec by Year 3. (Arterre, n.d.)

Table 1 lists a synthesis of potential land matching outcome indicators found in the literature. Key commonalities across land matching program evaluations included the importance of an evaluation framework including short, medium-term, and long-term outcomes and impacts (Valliant et al., 2019). Quantitatively, the amount of land put into agricultural production as a result of the land matching activities (Pillen & Hinrichs 2014, Hersey & Adams 2017), and the number of completed land agreements

(i.e., a land transfer, lease, or license), as a result of land matching activities (Hersey & Adams 2017, Land for Good 2019) are important indicators. However, it is key to acknowledge that “number of matches” as a short-term indicator of land matching program success fails to consider that many farm transfers take several years to complete (Parson et al. 2010) and often occur between parties who benefitted over a longer period of time from the support of a variety of land matching services; for example, matched partners found one another via a farm link listing, farm link staff and/or workshop (Land for Good 2019). In a review of 12 land matching programs in the United States, Hersey and Adams (2017) found that the number of transfers did not neatly correspond to specific levels or sources of funding but were influenced by how programs were situated in broader contexts of farmer and landholder motivations, availability of supporting educational and financial services, and geographic location (especially in relation to proximity to urban market outlets for farm produce).

Some land matching programs consider the “number of matches prevented” as a measure of success (Liberty Prairie Foundation). Like any form of financial investment, sometimes it is best to identify and prevent matches that are likely to fail due to “mismatches” in values, skills, business plan preparation, local markets. Experienced farm link staff recognize that redirecting a prospective new farmer away from prematurely acquiring a farm and toward production training and business planning through good advising is a form of success. Similarly, *not* consummating a particular deal can also be a positive outcome. For some, “failure avoided” is a success (Land for Good 2019).

Creating new businesses and supporting existing farms for successful expansion in their businesses were core goals in North American land matching programs. Yet, these long-term goals require growth in the level of knowledge in a wide range of skills. These skills include agronomic and farm management, business and legal decision-making, marketing and networking, resilience and adaptability to external factors, including market access, credit, and infrastructure availability, and personal and family goals. As such, relationship building was a key programmatic outcome discussed in the literature. This outcome is often evaluated in the medium-term, whereby formalizing a commitment as important as a land-based joint venture can only occur after a relationship between farmland seeker and landholder has been established and has received considerable support from a broad social and resource network (Ingram & Kirwan 2011; Pillen & Hinrichs 2014). It is also present as a long-term outcome whereby land matching activities aim to support rural communities in their revitalization (Valliant et al. 2019).

Table 1: Synthesis of Potential Evaluation Indicators and Outcomes

OUTCOME - Land kept in or transformed to agriculture
<ul style="list-style-type: none"> - # of acres made available by existing and non-farming land owners (Pillen & Hinrichs 2014) - # of farmland acres protected from urban development (Hersey & Adams 2017; Land for Good 2019) - # of acres put into production (CRAAQ 2019) - # of land transfers/leases completed (Hersey & Adams 2017; Land for Good 2019) - % of seekers who have paired with an owner (Valliant et al. 2019) - % of seekers who say they are likely to acquire ground (Valliant et al. 2019) - length of land agreements (CRAAQ 2019) - # of leases worked on (Land for Good 2019)
OUTCOME - Agricultural communities are strengthened
<ul style="list-style-type: none"> - # of mixers or meet & greet events per year (Pillen & Hinrichs 2014) - # of relationships facilitated/connections (Liberty Prairie Foundation & Ingram & Kirwan 2011) - # of owners wanting to support new farmers (Ingram & Kirwan 2011) - % of seekers who are now sharing crops, livestock, equipment, etc. with an owner (Valliant et al. 2019) - % of seekers who are now purchasing/leasing assets from an owner (Valliant et al. 2019) - % of seekers who are now employed on someone else's farm/ranch (Valliant et al. 2019) - # of program partners (Pillen & Hinrichs 2014) - # of non-farm businesses that opened because of increased agriculture (CRAAQ 2019) - # of social services that opened because of increased agriculture (CRAAQ 2019) - # of jobs created; economic contributions to local/regional economy (Land for Good 2019) - # of policy wins (Land for Good 2019)
OUTCOME - New farm businesses are created
<ul style="list-style-type: none"> - % of seekers who have developed a new farm (Valliant et al. 2019; CRAAQ 2019) - % of seekers who are in ownership positions (Valliant et al. 2019) - # of new farmers with secure tenure (Land for Good 2019)
OUTCOME - Existing farm businesses are better prepared for success
<ul style="list-style-type: none"> - % of seekers who say their operation is more stable/viable (Valliant et al. 2019; Land for Good 2019) - # of farms that continue to be productive (Hersey & Adams 2017) - % of seekers who say their operation has grown (Valliant et al. 2019) - Number of farm succession plans developed in writing (Pillen & Hinrichs 2014) - Level of preparedness to make land access decisions (Pillen & Hinrichs 2014) - Level of knowledge and skill gained through workshops or consultations (Pillen & Hinrichs 2014) - Level of farmers' preparedness for retirement and succession (Hersey & Adams 2017) - Number of matches destined to fail identified and prevented (Liberty Prairie Foundation)
OUTCOME - The agriculture community has a tool to acquire information about land matching
<ul style="list-style-type: none"> - # of properties listed/ subscribers to land bank (Land for Good 2019) - # of times staff reached out to non-farming landholders (Harvard Food Law & Policy Clinic 2014) - # of land matching workshops per year (Pillen & Hinrichs 2014; Land for Good 2019) - # of landholders who attended a workshop (Pillen & Hinrichs 2014; Land for Good 2019) - # of seekers who attended a workshop (Land for Good) - # of hours of contact time/site visits provided per client (Pillen & Hinrichs 2014; Land for Good 2019) - # of unique website hits (Pillen & Hinrichs 2014; Liberty Prairie Foundation) - # of owners with knowledge to transition (inferred from Ingram & Kirwan 2011; Land for Good 2019) - # of seekers joining the program every year (Pillen & Hinrichs 2014; Liberty Prairie Foundation) - # of landholders who join the program every year (Pillen & Hinrichs 2014; Liberty Prairie Foundation) - Level of satisfaction of seekers & owners with the services received (Pillen & Hinrichs 2014) - # of services provided to clients (Pillen & Hinrichs 2014) - # of clients served by each service (Pillen & Hinrichs 2014) - # of time a participant returns to use a different service (Liberty Prairie Foundation)

WHAT INDICATORS & OUTCOMES DID WE EVALUATE?

Based on this logic model, we selected a set of indicators and outcomes as part of the BCLMP Baseline Evaluation (Table 2). This list is adapted from Table 1 in the following ways: includes indicators not listed in the literature, including the performance targets suggested by the Ministry of Agriculture staff; includes only indicators that are SMART (Specific, Measurable, Achievable, Realistic, and Timely) and consistent with B.C.'s regional context and BCLMP goals and objectives; does not include indicators from the literature that are unable to be easily quantified (e.g., farm transfers become a regular part of farm business, improved farm viability), ill-defined (e.g., changes/actions taken or intended, # of policy wins), not context-specific (e.g., # of acres of land protected through conservation easements), and not within the scope of BCLMP objectives (e.g., level of farmers' preparedness for retirement and succession).

In discussion with the BCLMP Evaluation steering committee, we prioritized indicators and outcomes that we assessed as realistic for ongoing tracking of program performance (Table 2). We identified which short- or long-term outcomes are assessed by these indicators (note: a particular indicator can support more than one outcome). For indicators measured through the registered program participant evaluation survey, respondents selected their level of satisfaction on a scale of 1 to 5, where 1 indicated a low level of satisfaction, and 5 a high level of satisfaction. The % in the outcome tables below represents the % of respondents who indicated a level of satisfaction of 4 or higher. n/a indicates that this question was not posed to the respondent group (e.g., many questions were specific to landholders or land seekers, but not both).

Table 2: Indicators and outcomes considered in this baseline evaluation

Indicators based on existing BCLMP program data	Indicators collected via 2019 evaluation survey
SHORT-TERM OUTCOME - Increased inventory of land seekers and land opportunities	
<ul style="list-style-type: none"> - # of land seekers registered in BCLMP - # of landholders registered in BCLMP - # of land linking workshops / # of individuals at workshop - # of educational events / # of individuals at events - # of land opportunity assessments by land matchers - # of site visits by Land Matchers - # of initial meetings between land matchers and land seekers - # of land opportunities posted on UMAP and/or managed by BCLMP - # of land seekers listing on UMAP - # of program partners - # of partner meetings and outreach events attended by BCLMP staff 	<ul style="list-style-type: none"> - Level of satisfaction of land seekers & landholders with the services received (land matching, online resources and events)
SHORT-TERM OUTCOME - Increased preparedness to make informed land access decisions for land seekers and landholders.	
<ul style="list-style-type: none"> - # of registrant consults with YA BMN manager for enterprise readiness - # of referrals made by Land Matchers to business readiness support and legal/professional services - Circulation of online and printed educational materials 	<ul style="list-style-type: none"> - Level of preparedness to make land access decisions (for landholders and seekers) - Helpfulness of educational resources provided - Level of satisfaction with land matcher business readiness support (e.g., support accessing business plan resources) - Level of satisfaction with online business resources (e.g., business plan templates)
MEDIUM-TERM OUTCOME - Increased number of completed land access agreements	
<ul style="list-style-type: none"> - # of leases worked on by BCLMP (refers to # of negotiations by land matchers & # of land matcher facilitated intros between land seekers and landholders) - # of land agreements signed - # of land seekers matched - # of landholders matched - # of acres matched 	
MEDIUM-TERM OUTCOME - Increased satisfaction with land access agreements (length, terms, stability, enterprise model)	
<ul style="list-style-type: none"> - Length of land agreements - Production type of matched land 	<ul style="list-style-type: none"> - Self-assessed stability post-match - Level of satisfaction with land agreement
LONG-TERM IMPACT - Existing farmland continues to be farmed & under-utilized agricultural lands are put into production	
<ul style="list-style-type: none"> - % of matches still active X years post-match - % of land seekers still actively farming - % of landholders with land still in production 	<ul style="list-style-type: none"> - \$ generated by matched land (from agricultural production)

Evaluation Results

July 2016 - October 2019

SHORT-TERM OUTCOME – Increased inventory of land seekers and land opportunities

of land seekers registered in BCLMP: 164
 # of landholders registered in BCLMP: 149
 # of land linking workshops: 15 / # of individuals at workshop: 771
 # of educational events: 8 / # of individuals at educational events: 884
 # of land opportunity assessments by land matchers: 231 (45 remote, 216 in-person site visits)
 # of initial meetings between land matchers and land seekers: 171
 # of land and farmer listings posted on UMAP and/or managed by BCLMP: 480
 # of land seekers listing on UMAP: 205 / # of landholders listing on UMAP: 275
 # of program partners: 69 / # of partner meetings attended by BCLMP staff: 78

Level of satisfaction of land seekers & landholders with the services received (land matching, online resources, and events) to increase land access opportunities

% of respondents with a level of satisfaction of 4 or higher

Land matcher services

Land seekers

Landholders

Because of **Land Matcher** services, I am more aware of where to find information about land access when I need it.

85

77

Because of **Land Matcher** services, I am more able to communicate what kind of farm operation I am seeking.

75

n/a

Because of **Land Matcher** services and BCLMP online land access resources, I am more able to communicate my expectations of a farmer on my land.

n/a

86

Were your expectations about the **Land Matcher** services met?

78

88

Would you recommend **Land Matcher** services to others looking to enter a land match?

92

96

Compared to other methods of finding farmland or a farmer for my land, I found the **BCLMP more effective**.

77

83

Events and Online Services, including UMAP		
Because of events and online land access resources, I am more aware of where to find information about land access when I need it.	81	75
Would you recommend events and online land access resources to others looking to enter a land match?	91	93
The U-Map was helpful to me.<?>	67	75
Because of the U-Map, I am more aware of the land available for farming in my area.	75	n/a
Because of the U-Map, I feel like land seekers are more likely to learn about the land opportunity I am offering.	n/a	74
Would you recommend the U-Map to others looking to find farmland, or a farmer?	83	89
Support for Program Partners: % of program partner respondents with a level of satisfaction of 4 or higher		
How helpful was BCLMP in helping you meet your goal to increase farming activities and support new entrants in your region?<?>		68

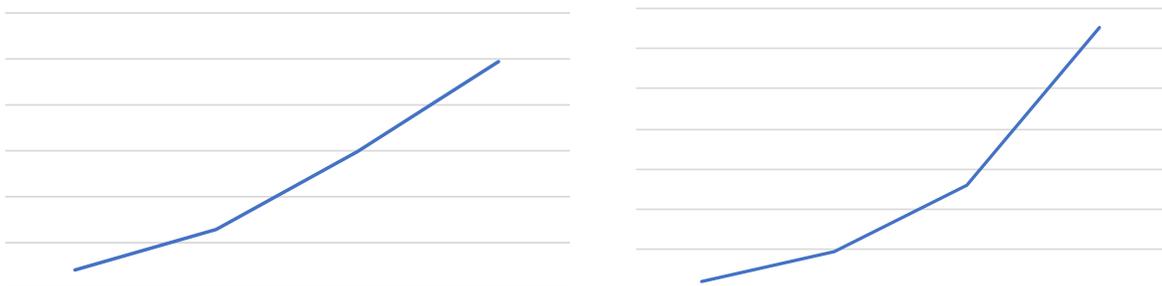
Discussion: Role of the BCLMP in increasing inventory of land seekers and land access opportunities

Farm succession has traditionally involved farmers passing land to their children, who may also inherit intergenerational knowledge, infrastructure, and working relationships within the broader agricultural sector. In a context where land is not currently farmed, prohibitively priced for farm transfer, where a retiring farmer does not have an immediate successor, and/or where there is a growing interest in farming among young people from non-farming backgrounds, re-thinking how farmers and landholders connect is one of the primary objectives of the BCLMP.

Increasing the pool of potential farmers and land to be farmed is within the primary mandate of the BCLMP and the associated programming of Young Agrarians. The BCLMP activities directly contributing to increasing inventory of farmland seekers and land access opportunities include: relationship building activities (including educational and networking events, and engagement with regional program partners), land matching activities (including face-to-face, sustained facilitation between potential land seekers and potential land access providers), and the curation of an online land inventory, the UMAP. Communicating land access opportunities via networks of friends or agriculture mailing lists was the most used alternative method for accessing land, compared to the BCLMP (75 per cent of land seekers, 48 per cent of landholders). Only one per cent of landholder respondents reported using commercial real estate services to advertise their land to potential farmers.

Our evaluation assessed both the quantitative growth of these activities over time and the current satisfaction with the activities as the BCLMP has expanded provincially and built relationships with new entrants, the broader farming community, and program partners. Between 2016 and 2019, over 1,600 separate individuals have engaged with the BCLMP, including via initial inquiries, attending an event or mixer, and formally registering in the program as actively pursuing a facilitated match. As of October 2019, 164 land seekers and 149 landholders had registered with the BCLMP.

Figure 2: Registered Program Participants and UMAP entries 2016-2019



The number of program participants formally registered with the BCLMP has grown significantly since 2016, encompassing the regional expansion of the program in 2018 and 2019 (Figure 2).

Several survey respondents emphasized the importance of events, social media, and land-linking

opportunities to recruit new participants to the sector, consistent with what was indicated in the literature as the successful “speed-dating” approach (Hersey and Adams 2017).

- The land matching program has done a good job at bringing new entrants together at land matching events for people to meet face to face to express their ideas and aspirations for farming or finding people to farm their land. The land matching program is very effective at **drawing out “ag curious” folks** out so that we (and the YA) can identify them and potentially support them, and they develop their ideas. (Program partner)
- The BCLMP has directed focused resources and attention to the various **innovative avenues to entering farming or increasing land access for farming expansion**. This focused work has meant: faster responses to inquiries, expertise and knowledgeable support to clients, increased promotion of the challenges facing new/young entrants to farming. (Program partner)
- This service was instrumental in connecting me to the farming community. I also learned a lot about the farming industry as well as the many different types of needs for farmland. (Land seeker)
- There is huge potential here, and it seems to be the only working solution to the “cost of land” issue for new farmers in BC. (Program partner)
- BCLMP has helped increase the number of young and new farmers just by giving them a viable option to access land. (Program partner)
- It is a very visible program in the community. Boots on the ground is a great way to connect people! (Program partner)

It is clear from the evaluation that several elements of Young Agrarians programming (educational events, online resources, U-Map, social media, and the business mentorship program) contribute to the success of the BCLMP through the development of social networks and marketing of land access resources and supporting business development for new farmers. YA is engaged online with a dynamic audience of new and potential farmers and friends with over 30,000 followers on social media channels and a website with an average user rate of 5100/month. People reached provincially online through YA land communications exceeded 87,000 between April 1, 2019, and September 30, 2019, alone.

At the same time, many respondents commented on the importance of face-to-face relationships with the land matcher. In contrast, others noted the importance of long-term continuity in the land-matcher role to build the context-specific experience needed for successful service delivery.

- I received a lot more value with face-to-face interactions with a Land Matcher than just pursuing the website itself- the website is a useful starting point or to refer back to, but having a person looking for the right fit and helping to make all the necessary arrangements and documents along the way was immensely helpful. (Farmland seeker)
- Meeting with the Land Matcher really opened my eyes to how important it is to have all the legal things sorted out when leasing land. I thought it would be easier to find land. (Farmland seeker)

Program partners include educational organizations; local and regional governments; provincial bodies; funders (Columbia Basin Trust, Real Estate Foundation of BC, Vancity); and other community organizations. Several program partners emphasized the value of having local representation in the land matching program area, despite the “newness” of the program in some regions, noting that it will take time to assess the effects of BCLMP activities on increasing farming operations in the longer term:

- It is very powerful to have representation here and having a staff person who lives in the area and knows the challenges and opportunities is so valuable. This is also extremely helpful as a partner organization- the more of us that are working to increase farming activities in our region, the better!

- Filling a role that we as a municipality don't have the capacity to do. Being able to spend the time to build relationships, gain a thorough knowledge of available land and people who want to use it and provide valuable legal help with leases to navigate parties interested in farming/leasing land into managing the paperwork and necessary agreement structures. We don't and probably never will have the capacity to fill this type of role.
- I manage a program that trains the next generation of farmers, so having BCLMP is extremely helpful. Members of the BCLMP do a talk about their services with our students every year and many of our students, past and current, connect with them for help.
- It provides a needed centralized resource in our area and Province -access to land is a huge challenge, and young people passionate about ag would not otherwise be in a position to step in.
- In my opinion this is an extremely valuable program, and an extremely good value for dollar on government expenditure. This is the ground up approach that is often missing in government.

Suggestions for Further Program Development:

UMAP

- While overall appreciation for UMAP was high, several respondents suggested improvements to technical aspects of the resource, including more frequent updates.

Partnerships Development

- Continue to engage with new entrant training programs at UBC, KPU, UFV, and TRU to advance business and legal literacy curriculum, with specific resources developed for the range of diversified farming sectors, production models, and market conditions present across BC's agricultural regions.
- Work with lending institutions to develop resources for new entrants with low access to capital, on creative investment strategies for new farm infrastructure.
- Consider new ways to market land access programs to broad constituencies including current farmers, new entrants, and new immigrants to BC.

SHORT-TERM OUTCOME - Increased preparedness to make informed land access decisions for land seekers and landholders		
# of participant consults with YA BMN coordinator for enterprise readiness: 11 # of referrals made by Land Matchers to business readiness support and legal services: 90 referrals to 70 program participants # circulated of online and printed educational materials: 5,484 online downloads of the B.C. Land Access Guide, Lease Templates Guide, and License Templates Guides; circulation of 1,095 printed copies		
% of landholder respondents with a level of satisfaction of 4 or higher		
Land matcher services		
Land Seekers		
The Land Matcher personalized matchmaking services (e.g. meeting with Land Matcher, connection to resources, connection to landholder, follow up) were helpful to me.	85	94
Land matcher support in assessing my land, vision, and needs was helpful.	n/a	95
Because of Land Matcher services, I am more aware of the legal issues involved in land access.	83	86
Because of Land Matcher services, I am more prepared to select an appropriate farmer for my needs on my land.	n/a	88
Because of Land Matcher services and online land access resources, I am more knowledgeable about how to interact with a potential landholder.	82	n/a
Because of Land Matcher services and BCLMP online land access resources, I am more knowledgeable about how to interact with a farmer on my land.	n/a	80
Land Matcher business readiness support (e.g., support accessing business plan resources) were helpful. ¹	80	n/a
Events and Online Resources		
Online land access resources (e.g., land access guide, lease templates) were helpful. ²	89	77
Because of events and online land access resources, I am more aware of the legal issues involved in land access.	79	77
Online business resources (e.g., business plan templates) were helpful. ³	75	n/a
Would you recommend BCLMP online business resources to others looking to enter a land match?	88	n/a

¹ 35% of land seekers indicated that they did not access Land Matcher business readiness support.

² 35% of landholders indicated they did not use online land access resources.

³ 44% of land seekers indicated that they did not use online business resources.

Discussion: Role of the BCLMP in increasing preparedness of land seekers and landholders to make land access decisions

Growing the agricultural sector in B.C. requires not only increasing the inventory of potential farmers and land access opportunities but also preparing land seekers and landholders to develop the skills needed to foster long-term success in farming. BCLMP program activities designed to increase the level of preparation to make informed land access and farming decisions include the development of educational and farm business resources such as the B.C. Land Access Guide, lease and license templates, and farm transition and succession resources. Land Matching services connect potential land seekers and landholders to these resources, program partner networks, and to other regional experts in the legal aspects of farmland transfer and business advisory services. It is important to emphasize that the learning curve for land seekers coming from non-traditional farming backgrounds and for landholders who are not currently farming their land can be steep and lengthy. As such, social networking and targeted facilitation support to meet the program participants' needs to build a strong regional fabric of support for new entrants to farming is key to the long-term viability of the agricultural sector in B.C.

Table 3 demonstrates the average time elapsed (in months) from the first documented point of contact with the BCLMP to the date of finalizing a matched through a signed land access agreement for the first 55 matches completed through the program between 2016 and 2019. Regional differences are evident in the analysis, with matches in the Metro Vancouver region taking longer than the provincial average.

Table 3: Average Time Elapsed (months) from first point of contact with BCLMP to Match

	Landholders (N=55)	Land seekers (N=55)
0-2 months	16	15
3-6 months	20	19
7-12 months	10	12
more than 12 months	9	9
average length (months)	6.8	6.6
Regional Averages (months to match)		
Columbia Basin	3.4	3
Central/North	5	2
Metro Vancouver	9.5	9.4
Okanagan	5.7	5.4
Vancouver Island	4.4	4.6

This timeline provides opportunities for education, identification of landholder and land seeker objectives, priorities and opportunities, and connection with business planning and legal literacy resources through the BCLMP, including through the utilization of *Land Matching Referral Services*. During the matching process, land matchers make referrals to workshops, webinars, and resources on production and business planning, Ministry of Agriculture Regional Agrologists, legal, accounting, and other professional services to provide a complementary suite of support services to better prepare a land seeker to sign a land use

agreement and start a farm business. The YA Business Mentorship Network coordinator, for example, works with a subset of registered BCLMP land seekers to develop or refine their business plans in anticipation of starting farm businesses on land matched through the BCLMP. Farmers who have already been matched can continue to work with the YA BMN to increase farm revenues, land in production, the volume of food, community support, and peer-to-peer engagement.

Respondents to the survey indicated a desire for increased support in the area of developing their own legal literacy, education on how to build contracts between parties, and access to business development services. Currently, the BCLMP addresses legal literacy and contract education through Land Linking workshops and resources such as the B.C. Land Access Guide and lease and license templates. With the exception of 1:1 support from the YA BMN Manager for a limited number of participants based on current resources, business development services are not directly within the mandate of the BCLMP and rather are addressed through referrals. Further educational resources related to legal literacy and contracts could be developed as part of future BCLMP programming. More extensive business development services could be developed to accompany BCLMP activities and expand the reach of the program to a broader range of new entrants. For example, these participants recommended:

- The program needs to have a course [for participants] in contract negotiation and legal terms and implications. The people heading the land matching program are doing a great work, but the odds are stacked against new farmers. (Land seeker)
- One learning experience is that it would be helpful for potential farmers to learn about realistic budgets and accessing grants and funding for their projects. (Landholder).
- The land matching program is an excellent idea. I would like to see them work closer with all lending institutions. I'd also like to see them shed the image of only being for only organic farming because that was my impression. And because the word young is tied to young agrarians, new entrants who are 40+ might not recognize that they are eligible. So, I think a bit rebranding is needed. (Program partner)

Suggestions for Program Development

Several respondents suggested further professional development for legal and business assessment (e.g. lease agreements and process, insurance, working with lending institutions, etc.), especially for new land matchers or those starting in new areas of the province. Ensuring appropriate resources, job stability, and compensation packages to ensure long-term continuity in the land matcher role will also support long-term facilitation success. Similarly, programming could be developed to work with lenders to develop innovative credit programs for new entrants with strong business management skills.

MEDIUM-TERM OUTCOME - Increased number of completed land access agreements	
# of leases worked on by BCLMP (negotiations resulting from land matcher facilitated intros): 98 ^{<?>}	
# of land agreements signed: 55	
# of land seekers matched: 48	
# of landholders matched: 54	
# of acres matched: 707	
MEDIUM-TERM OUTCOME - Increased satisfaction with land agreements	
Average length of land agreements: 4 years Lease contains a renewal or roll-over clause: 43 per cent	Self-assessed stability post-match: 63 per cent of landholder respondents said their farm or land operation is more stable after matching with a land seeker Level of satisfaction with land agreement: 70 per cent of land seekers and 84 per cent of landholder respondents said they were satisfied with the land agreement they have.
LONG-TERM IMPACT - Existing farmland continues to be farmed & other agricultural lands are put into production	
% of matches still active 3 years post-match	\$ generated by matched land from agricultural production

Table 4: Match Status by Program Year and Region

Program Year	Matches	Match Status Dec 2019
2016-2018	8	4 completed, 4 terminated
2018-2019	21	19 ongoing, 2 terminated
2019-2020	26	23 ongoing, 1 completed, 2 terminated
Total	55	

REGION	NUMBER OF MATCHES	NUMBER OF ACRES MATCHED	AVERAGE MATCH ACREAGE
Columbia Basin	5	39	8
Central/North	2	491	*
Metro Vancouver	24	93	4
Okanagan	10	40	4
Vancouver Island	14	44	3
TOTAL		706.9	

Discussion: Number and Satisfaction with Land Access Agreements

Medium and long-term outcomes and impacts evaluated in this report are included with the caveat that most BCLMP registrants have been registered or matched within one to three years. That said, this initial scan of program outcomes for the first 55 matches gives us a sense of the program trajectory.

We evaluated the 55 completed matches since the program pilot in 2016 and found that 42 (75 per cent) are still in active farming with the original match. Five matches were “completed”, signifying that the land seeker and landholder fulfilled the terms of a short-term lease. Of these five, three of the farmers moved to an alternate farm site (in two cases with better water access). Of the eight matches that were “terminated” (meaning the farmer or landholder initiated an end to the lease arrangement prior to the established term), four were for personal or health reasons, two were due to housing not being available on site, one farmer moved to a larger property to transition to full-time farming, and one match was terminated by the landholder due to a disagreement about production values with the lessee.

Twenty-four farmland seekers and 11 landholders who had been in negotiations but had not yet completed a match responded to the question: *Could you share with us why your potential land match fell through?*

Responses fell into four broad categories:

Mutual Expectations: seven farmland seekers and five landholders indicated that in the process of lease negotiations, it became clear that the needs of both parties were not well served by the match. In these cases, the land matching service was used to “avoid a bad match.”

Making the Finances Work: five farmland seekers and six landholders indicated that financial issues (lease rates, insurance and legal issues, cost of infrastructure, and other ‘financial difficulties’ were not able to be overcome.

Housing and Infrastructure: For land seekers, learning more about prospective housing and infrastructure during the match making phase were ‘deal breakers’ in several instances.

Personal and family issues: Several potential matches ended due to health, personal and family issues.

Discussion: Farming Sector and Potential Revenue

The matches facilitated by the BCLMP encompass a diverse range of production types, with 35 (64 per cent) of the 55 matches pursuing a single production model and 20 farms (36 per cent) pursuing multiple production types. Vegetable and melon farming are represented in 31 (58 per cent) of total matched properties.

Table 5: Production Type - Matched Farms

Production type	North American Industry Classification System (NAICS)	Non-Diversified Farms	Diversified Farms
Cattle ranching and farming - Beef			1
Cattle ranching and farming - Dairy		2	
Hog and pig farming			
Poultry and egg production			4
Sheep and goat farming		2	4
Oilseed and grain farming			1
Vegetable and melon farming		17	14
Fruit and tree nut farming		2	4
Greenhouse, nursery and floriculture production		3	6
Other animal production: apiculture		6	1
Other crop farming: seed production		1	2
Other crop farming: hay		2	
Other crop farming: mushrooms			1
Other crop farming: medicinal herbs			1
Total Number of Matched Farms by production type		35	20

For respondents to the B.C. New Entrants Needs Assessment (BC Stats 2019), the most common type of farm business among all survey respondents was vegetable and melon farming (20 per cent), followed by poultry and egg production (18 per cent), fruit and tree nut farming (14 per cent) and cattle ranching and farming – specifically in beef production (11 per cent).

This relative focus on vegetable and melon production among new entrants in the BCLMP may be attributed to the program’s longer duration in the Metro Vancouver and Fraser Valley Region, where available parcels tend to be smaller, and where new entrants have expressed interest in taking on smaller parcels requiring less capital investment for short-term revenue generation (e.g., compared to livestock, dairy quota, greenhouses, perennial crops) and larger profit margins on a per hectare basis (e.g. as opposed to hay). Regional market factors could also influence the relationship between business model selection. Several matched farms indicated an intention to diversify production types in the future. For example, farms producing vegetables and melons (which can include a diversity of market vegetable crops) may add poultry or livestock once the business is established, has stability, and is in a position to invest in stock and infrastructure.

Table 6: Average Revenue from Matched Land

Self-Reported Revenue	# Respondents
\$0/recent start-up	19
Under \$10,000	8
\$11-50,000	5
\$100,000 +	6
Total	38

The 2019 B.C. New Entrant Survey reported that 24 per cent of all respondents indicated their farm business accounted for zero per cent of their annual household income, and 46 per cent indicated that it accounted for less than one-quarter.

In that study, revenue from respondents’ farming businesses or enterprises was an average of \$59,149.62 (BC Stats 2019). In this BCLMP participant evaluation, 38 respondents who indicated a relationship with the BCLMP regarding their farming operation were asked the question, “What is your total annual revenue of agricultural product sales from the matched land (approximately)?” Over 50 per cent (19) indicated 0 or “no sales yet” as they were just starting their leases. These figures should be considered for illustrative purposes only, as revenue from matched land will vary relative to acreage, years since start-up, and enterprise model. As an example of “each case is different”, of the six respondents indicating that they expected \$100K in annual revenue from their farm enterprise, two were from the same farm which had been in operation since 2013. Another respondent received a match in early 2019, had a family farming background and access to credit. Two other respondents with prior farming experience are in recent matches of approximately 20 acres each, in diversified operations including livestock and mixed vegetables; one of these properties contains significant farm infrastructure.

Stability of the Farm

We also asked a series of questions about farmer and landholder perceptions of the stability of their farming operation. Stability speaks to the long-term viability of the farm enterprise and contributes to the long-term goal of keeping more agricultural land in production. Although most respondents to this question were very early in their match, 66 per cent of land seeker respondents indicated that their farm operation is “more stable after gaining access to the matched land” and 63 per cent of landholder respondents indicated their farm or land operation is more stable after matching through the BCLMP.

Respondents identified that stability is improved when matches have longer tenures, provide opportunities for living on the land to streamline farming operations, and that providing secure tenure has enabled more focus on business development and increased production. Only two respondents indicated that their matches resulted in reduced sense of stability, due to taking on “too much land” in one case, and a “micromanaging landholder” in the other.

- I am able to plan and forecast for the future now since I have a stable contract. (Farmland seeker)
- It is more stable because I feel like there is predictability over how long I can stay there and therefore what to invest in. (Farmland seeker)
- This is the third piece of land I’ve been on in three years, because I now have a solid sublease for 4-6 years, I won’t have to start from scratch next season and can extend my season from 4-7 months! (Farmland seeker)
- The extra land gives me a chance to do better crop rotation and to expand my farm operations. To diversify my crops to better meet my clients’ needs. (Farmland seeker)
- As 2 senior farmers looking to find someone to rent our ranch to keep it a viable operation, we feel there is the possibility that with our land match we are in a more stable position. (Landholder)
- Found a fantastic, strong stable and serious farmer for my land through the BCLM program. (Landholder)
- I have an excess of land that I wanted to offer as an opportunity for someone to learn, practice or teach and we ended up with a perfect startup who was looking for a place to grow native plants to support their landscaping business. From my perspective this was a perfect match! (Landholder)
- I’ve gone from ad hoc agreements about haying, egg production and vegetable growing, to a more stable long-term lease. (Landholder)
- The land operation is more stable as we have a farmer who has a concrete plan and is carrying it out. A particular unused area is now designated for a particular purpose. (Landholder)
- We didn’t have a real plan of how to fully utilize the property. Now that we are matched, we’ll be able to use all the property effectively for food production. (Landholder)
- With the help of your services, we now have a modest revenue stream on a piece of our land that was not being utilized. The money will go directly into helping maintain and upgrade other areas of our farm. (Landholder)

Conclusions & Summary of Insights

Long-term success in building a future generation of farmers in British Columbia can only be measured in the “long term”. As such, it is important to consider the specific contributions of short- and medium- term activities and outcomes as part of an evaluation’s program theory. While the total number of matches, acres, and production types is important to document to assess progress towards expanding the farming sector, it is also important to ensure that these matches are stable long-term. Successful farming requires technical, legal, and business-related knowledge, good land, access to housing, markets and infrastructure, and a strong agricultural community. As was found in the land matching literature, “it can take two years or more to complete a succession plan, and a decade or more to implement it, during which time the transfer planning evolves” (Pearson et al. 2010). As such, future evaluation of long-term outcomes needs to consider that the BCLMP cannot be ultimately responsible for the success of farmer’s business practices but *can* contribute significantly to building the foundations of success through the establishment of “good matches” based on strong relationship building between seekers, owners, and program partners and well-resourced programs offering business, legal, and educational support.

In summary, the BCLMP, in its third full year of operation, is demonstrating a strong upwards trajectory for successful program development and expansion. The rapid increase in inventory of land seekers and landholders, the development of new educational and business training resources through other pillars of Young Agrarians programming, the provincial and regional social network and partnership development, and positive trajectory in establishing successful matches bodes well for the future of the program and for the growth of sustainable food systems in B.C.

Key Recommendations:

- Agricultural investment programs and support services in B.C. should consider the unique context of cultural and generational shifts in future farming populations, restricted access to farmland for new entrants, and in response invest in innovative educational, business development, and land access models to sustain the future farming sector in B.C.
- Support continued investment in a provincially managed land matching program, on a long-term (five years) funding model, to allow the necessary program maturation time to create regionally-based support networks, relationships, and a more extensive inventory of seekers and land opportunities.
- Clearly define necessary staff roles for provincial program expansion, including support for regionally coordinated land matching activities, business, and legal training experts able to provide expanded reach for targeted one-on-one support to new entrants, and marketing/outreach staff. Consider new ways to market land access programs to broad constituencies including current farmers, new entrants, and new immigrants to BC.
- Engage with new entrant and sustainable agriculture training programs at UBC, KPU, UFV, and TRU to advance business and legal literacy education and curriculum enhancements, with specific resources developed for the range of diversified farming sectors, production models, and market conditions present across B.C.'s agricultural regions.
- Develop webinars for legal literacy and business planning in collaboration with the Young Agrarians Grow a Farmer Strategy.
- Support new programming with lenders to support financial investment in farm businesses operating under a non-ownership model of land access.
- Support new programming for public investment in capital infrastructure on shared or leased farmland (e.g. housing, irrigation, shared equipment, mobile greenhouses, etc.).
- Track program outcomes on a three- to five-year cycle, balancing assessment of short, and medium-term outcomes.
- Track program long-term impacts on a 10-year cycle.

Recommended Outcomes and Indicators for Ongoing Tracking

Indicators from BCLMP program data	Indicators to be collected via periodic evaluation
SHORT-TERM OUTCOME – Increased inventory of land seekers and land opportunities	
<ul style="list-style-type: none"> - # of total participants engaged in BCLMP Activities (including inquiries) - # of land seekers registered in BCLMP - # of landholders registered in BCLMP - # of land linking workshops / # of individuals at workshop - # of educational events / # of individuals at events - # of land opportunity assessments by Land Matchers - # of site visits by Land Matchers - # of initial meetings between Land Matchers and land seekers - # of property listings posted on UMAP and/or managed by BCLMP - # of land seekers/landholders listing on UMAP - # of program partners - # of partner meetings attended by BCLMP staff - Equity, Diversity and Inclusion Metrics (gender, ethnicity, age) 	<ul style="list-style-type: none"> - Level of satisfaction of seekers & owners with the services received (Land matching, online resources and events)
SHORT-TERM OUTCOME – Increased preparedness to make informed land access decisions for land seekers and landholders	
<ul style="list-style-type: none"> - # of participant consults with YA BMN coordinator for enterprise readiness - # of referrals made by Land Matchers to business readiness support and legal services - circulation of online and printed educational materials 	<ul style="list-style-type: none"> - Level of preparedness to make land access decisions (for landholders and seekers) - Helpfulness of educational resources provided - Level of satisfaction with Land Matcher business readiness support (e.g., support accessing business plan resources) - Level of satisfaction with online business resources (e.g., business plan templates)

MEDIUM-TERM OUTCOME – Increased number of completed land agreements	
<ul style="list-style-type: none"> - # of leases worked on by BCLMP (refers to # of negotiations by land matches & # of Land Matcher facilitated intros between FS and LO) - # of land agreements signed - # of land seekers matched - # of landholders matched - # of acres matched 	
MEDIUM-TERM OUTCOME – Increased satisfaction with land agreements (length, terms, stability, enterprise model)	
<ul style="list-style-type: none"> - length of land agreements - crop type of matched land 	<ul style="list-style-type: none"> - Self-assessed stability post-match - Level of satisfaction with land agreement
LONG-TERM IMPACT – Existing farmland continues to be farmed & under-utilized agricultural lands are put into production	
<ul style="list-style-type: none"> - % of matches still active X years post-match - Equity, Diversity and Inclusion Metrics (gender, ethnicity, age) 	<ul style="list-style-type: none"> - \$ generated by matched land (from agricultural production) - # of jobs generated on matched land

Bibliography

Arterre, n.d. Background and Mandate. Quebec.

B.C. Agricultural Land Commission, 1975. Keeping Our Options Open. Retrieved from https://www.alc.gov.bc.ca/assets/alc/assets/library/living-in-the-alr-information/keeping_the_options_open_booklet.pdf

B.C. Agricultural Land Commission, 1984. General Operational Procedures for Leasing Properties under Land Commission Lease Program.

B.C. Ministry of Agriculture, 2016. Agriculture in Brief, Census of Agriculture, British Columbia Provincial Profile. Retrieved from https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/statistics/census/census-2016/aginbrief_2016_british_columbia.pdf

B.C. Ministry of Agriculture, Provincial Land Commission and Property Management Branch. 1975. Guidelines to Leasing Farmland. Mimeo.

BC Stats, 2019. New Entrants Needs Assessment: Final Report 2018-2019. Prepared for the B.C. Ministry of Agriculture, April 2019.

Budhwani, S., McDavid, J.C., 2017. Contribution Analysis: Theoretical and Practical Challenges and Prospects for Evaluators. *CJPE* 32. doi:10.3138/cjpe.31121

Chen, H. 2005. Practical program evaluation: assessing and improving planning, implementation, and effectiveness (Thousand Oaks, CA: Sage).

Chiswell, H.M. 2014. The importance of next generation farmers: A conceptual framework to bring the potential successor into focus. *Geography Compass* 8(5): 300-312.

Cohen, M., et al. 2014. Rhode Island land-linking program: Background research and policy analysis. Harvard Law School Food Law and Policy Clinic.

Curran, D., Stobbe, T.E., 2010. Local government policy options to protect agricultural land and improve the viability of farming in Metro Vancouver. Metro Vancouver, Metro Vancouver.

FarmFolk CityFolk (FFCF) et al. 2016. Farmland Access in British Columbia: Four Innovative Approaches. Retrieved from <http://www.farmfolkcityfolk.ca/documents/FarmlandAccessBooklet.pdf>

Fettermen, D., & Wandersman, A., eds. 2005. *Empowerment Evaluation: Principles in Practice* (New York: Guilford).

Garrish, C., 2003. Unscrambling the omelet: Understanding British Columbia's Agricultural Land Reserve. *BC Studies* Issue 136, 25-55.

Hersey, A., & Adams, M. 2017. Using contribution analysis to assess the influence of farm link programs in the U.S. *Journal of Agriculture, Food Systems, and Community Development* 7(3): 93-103.

Hubbard, P. 2006. A land link for Western Montana: Keeping land in agriculture from one generation to the next. Graduate Student Theses, Dissertations, and Professional Papers. 267. Accessed August 15, 2019.

Ingram, J., & Kirwan, J. 2011. Matching new entrants and retiring farmers through farm joint ventures: Insights from the Fresh Start Initiative in Cornwall, UK. *Land Use Policy* 28(4):917-927.

Land for Good. 2019. A Guide to Developing and Strengthening Farm Link Programs. <https://landforgood.org/wp-content/uploads/LFG-Farm-Link-Guide-Developing-and-Strengthening-Farm-Link-Programs.pdf>

Liberty Prairie Foundation. Connecting farmers and landholders: Insights and lessons learned based on farmlink programs across the U.S. Accessed July 25, 2019. Retrieved from https://www.foodlandopportunity.org/downloads/Connecting-Farmers-Landowners_Farmlink-Programs_Jul15.pdf

Parsons, R., et al. 2010. The FarmLASTS Project: Farm land access, succession, tenure and stewardship. USDA. Accessed August 15, 2019. Retrieved from <https://www.uvm.edu/farmlasts/FarmLASTSResearchReport.pdf>

Patton, MQ. 2011. Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use. (New York: Guilford).

Perez, Jan, Allyssa Mark, Pam Mavrolas, Kim Nielwolny; Jennifer Hashley and Damian Parr. 2020. Identifying Outcomes for Program Evaluation: Example Outcomes for Beginning Farmer and Rancher Training and Support Efforts. University of California, Santa Cruz, Center for Agroecology & Sustainable Food Systems. Santa Cruz, CA. Retrieved from <https://casfs.ucsc.edu/education/bfrdp/evaluation-outcomes-list.pdf>

Pillen, L., & Hinrichs, C. 2014. Land linking programs in the Northeast US: A program assessment and lessons learned. *Rural Development* 53.

Statistics Canada, 2016. Tenure of land owned, leased, rented, crop-shared, used through other arrangements or used by others. Table: 32-10-0407-01 (formerly CANSIM 004-0204)

Statistics Canada, 2017. A portrait of a 21st century agricultural operation. <https://www150.statcan.gc.ca/n1/pub/95-640-x/2016001/article/14811-eng.htm>

Sussmann, C., Dorward, C. Polasub, W., Mullinix, K., Mansfield, B. 2016. Home on the Range: Cost pressures and the price of farmland in Metro Vancouver. Retrieved from <https://www.vancity.com/AboutVancity/News/MediaReleases/AgriculturalLandPricesIncrease-Apr6-2016/Vancity-Agricultural-LandReport.pdf>

Tatebe, K., Robert, N., Liu, R., dela Rosa, A., Wirsching, E., and Mullinix, K. 2018. Protection is Not Enough: Policy Precedents to Increase the Agricultural Use of British Columbia's Farmland. Richmond, British Columbia: Institute for Sustainable Food Systems, Kwantlen Polytechnic University, 2018. Retrieved from https://www.kpu.ca/sites/default/files/Protection%20is%20not%20enough_full%20white%20paper_ISFS_March%2012%202018.pdf

Valliant, J., et al. 2019. Fostering farm transfers from farm owners to unrelated, new farmers: A qualitative assessment of farm link services. *Land Use Policy* 86: 438-447.

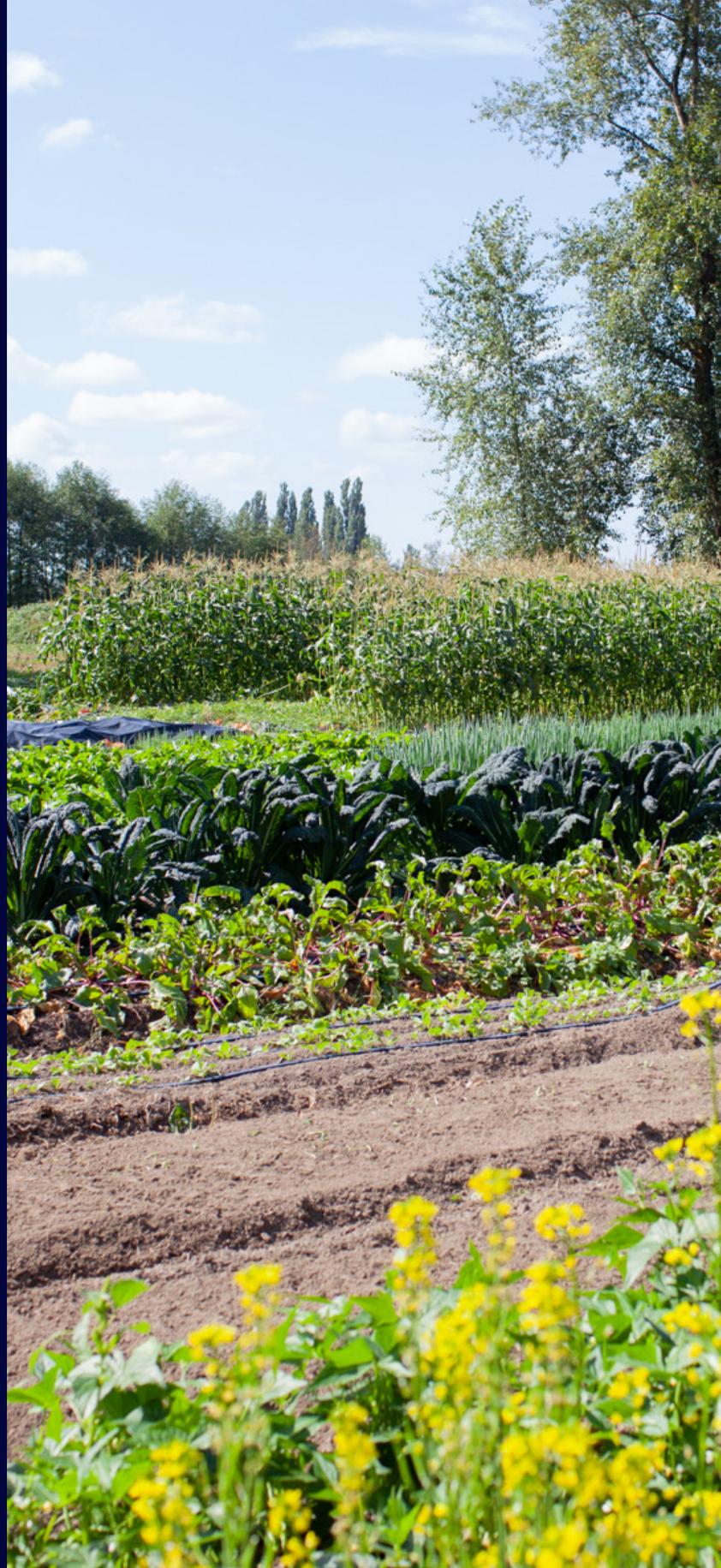
Wittman, H., Dennis, J., Pritchard, H. 2017. Beyond the market? New agrarianism and cooperative farmland access in North America. *Journal of Rural Studies* 53, 303-316.

Cover photos by Jete Devisser,
Urban Fig Photography (front) and
Sara Dent, farmlove.org (back).

Centre for Sustainable Food Systems

170-2357 Main Mall
University of British Columbia
Vancouver, BC V6T 1Z4

ubcfarm.ubc.ca



Ministry of
Agriculture, Food
and Fisheries



UBC FARM
Centre for Sustainable Food Systems