

Socio-Economic Impacts of British Columbia's Community Forests Program



December 11, 2018

Submitted to:



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EXECUTIVE SUMMARY

Overview

Community forests have become leaders in generating employment, revenue and social benefits for rural and Indigenous communities across British Columbia. By comparing the value created by community forests and the total forest activity in the province, this study provides insight into the benefits that community forests bring to the rural and Indigenous communities they operate within, and to the province as a whole.

Using a multiple account analysis framework, the report assesses the socio-economic impacts of community forests on economic development, government revenues and social implications. Data collected through the annual Community Forest Indicators Survey was compared to the total general forest sector activity. The total harvest volume of all 2018 community forest survey respondents was **1,466,638 m³**. To draw an accurate comparison, the data from the industry was pro-rated to this value.

The importance of the socio-economic impacts is emphasised by the context within which community forests operate. In the last 15 years, the provincial forest sector labour force has declined by almost 35,000 jobs, or 36%. Many rural Regional Districts have seen significant declines in their forestry employment, with no rural Regional District experiencing an increase in forest sector employment. This has created noticeable hardship for many rural and Indigenous communities as they have seen their attachment to the forest sector decline, or in some instances disappear.

Overall, the key findings of the report, using the outlined approach, highlight:

Economic Development

The economic development account analysis assesses employment and employment income.

- Wood harvested in community forests generates more overall employment than that allocated to other types of forest tenures. This is as a result of increased employment in land management, logging and support activities.
- In addition, while most of the fibre harvested by community forests is sold to major licensees, a higher portion of the fibre flow goes to value added and small

wood processors than generally observed from other licences. This further enhances the employment created from the community forest harvest.

- A full data set of employment activity is available for the Interior Community Forests and is used here to compare to the Total Interior Forest activity from data prepared by the Provincial Government.
- Based on a harvest of 1,466,638 m³ it is estimated that the Total Interior Forest Industry would create approximately 1,135 person-years of direct employment compared to 1,734 person-years from the Interior Community Forest activity. This is almost 53% more person-years of employment generated from Interior Community Forests than from the Interior Total Forest Industry.
- Forest sector employment income is a key factor in creating community wealth in rural communities, and in comparisons with other licence types, the increased employment leads to increased employment income. For the 1,135 person-years of direct employment created by the Total Interior Forest Industry, this creates approximately \$86.3 million in direct wage income; while the 1,734 person-years of employment created by the Interior Community Forest sector results in \$130.5 million in employment income.

Government Finance

The government finance account measures stumpage payments, personal income tax, property tax and direct donations and dividends to local communities.

- Stumpage paid by major licences from their Tree Farm Licences and forest licences nets the province approximately \$17.8 million on a harvest of 1,466,638 m³. This is significantly more than the \$2.5 million paid by community forests for the similar harvest.
- However, community forests pay more revenue to the provincial government in the form of personal income taxes. Additionally, direct payments and dividends derived from community forest activities are delivered to local governments, and community organizations.
- Overall, total revenue to local and provincial government sees the community forests contributing approximately \$23.9 million, while major licences contribute approximately \$937,000 million more at \$24.8 million for a similar harvest volume of 1,466,638 m³. This difference is marginal when the social benefits below are included in the assessment.

This comparison shows how the provincial forest industry generates revenue for the provincial government, while community forests revenues is more equitably shared between local and provincial governments.

Social Benefits

The social implications account describes the tangible gains community forests are making in furthering First Nations reconciliation, wildfire mitigation, enhanced forest stewardship and enriched quality of life in rural communities.

- Indigenous and rural communities work collaboratively on many community forests. Approximately 26% are partnerships between Indigenous and rural communities, while 23% are held solely by Indigenous communities. In all instances, there is noticeable dialogue on community forest lands between rural and Indigenous communities.
- At their core, community forests serve the residents and communities that hold these tenures. As such there is on-going consideration of future residents and investments to reflect this, including:
 - Community forests are leaders in proactive management for wildfire hazards, focusing on keeping their communities safe. To date, respondents to the Community Forests Indicators survey collectively treated 3,522 hectares, invested over \$1.8 million in wildfire mitigation, and leveraged an additional \$6.5 million for community protection.
 - Community forests regularly invest in enhanced forest stewardship, incremental to legal requirements, to protect important community values. In the reporting year alone, respondents made investment of \$1.6 million in enhanced management.
 - Community forests offer educational opportunities to link community members to the forest and to increase understanding of forest ecosystems and management. A total of 25 Community Forests reported an investment of \$176,295 in 2018.
 - Community forests enhance the quality of life of local residents by creating, improving and maintaining local recreational infrastructure and opportunities. Twenty-two community forests invested \$585,211 in recreational activities on their land bases, and leveraged \$953,443 more.

- Community forests work hard at engaging with the diversity of community members and stakeholders, both on the land base and in the community. Further, given the proximity of community forests to rural communities, there is on-going work with residents to ensure that social licence and trust on the land base is respectfully maintained.

The combined public benefits from community forest agreements from direct stumpage payments and the social, economic and environmental benefits that result from the unique government goals for the program represent the true return to the province from community forest agreements.

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1 INTRODUCTION

1.1 BACKGROUND

1.1.1 British Columbia Community Forest Association

This project is being undertaken by the British Columbia Community Forest Association (BCCFA). The BCCFA is a network of community-based organizations in British Columbia that are either managing community forests or striving to establish community forests.

Formed in March of 2002, the BCCFA has become a unified voice for the interests of all B.C. communities engaged in community forest management, as well as those seeking to establish community forests.

The Association is a membership-based organization, with 53 members organizations, representing over 90 rural and Indigenous communities across the province. (BCCFA. 2018a)

1.1.2 Community Forests Share of Provincial Annual Allowable Cut

The current Community forest program started in 2000 and began with a very modest total Annual Allowable Cut (AAC) of 65,234 m³. Since that time, and as illustrated in Table 1, the AAC associated with community forests had risen in 2017 to 2,128,164 m³. Despite this growth, community forests still only represent 3.1% of the total AAC allocated in the province.

Table 1: Provincial Allowable Annual Cut Allocations by Category

Year	TSA (m ³)	TFL (m ³)	Woodlots (m ³)	FN Woodlands (m ³)	Community Forests (m ³)	Total AAC (m ³)	Community Forests as % of total
2017	52,588,795	12,682,961	1,513,591	314,734	2,128,164	69,228,245	3.1%
2016	59,927,619	12,127,830	1,503,944	152,382	1,976,851	76,688,626	2.6%
2015	62,976,158	12,484,230	1,536,045	99,183	1,909,600	78,906,033	2.4%
2014	65,766,460	12,484,230	1,691,779	89,283	1,859,600	81,802,069	2.3%
2013	64,585,682	12,418,523	1,675,801	89,283	1,794,600	80,474,606	2.2%
2012	64,314,187	12,418,523	1,655,805	69,883	1,696,405	80,084,920	2.1%
2011	64,949,935	13,619,607	1,638,474	69,883	1,400,405	81,608,421	1.7%
2010	69,493,398	14,375,650	1,595,825	0	989,317	86,454,190	1.1%
2009	69,182,238	14,375,650	1,557,395	0	749,325	85,864,608	0.9%
2008	68,166,943	14,218,284	1,509,630	0	256,211	84,151,068	0.3%
2007	68,385,830	16,899,643	1,481,431	0	256,211	87,023,115	0.3%
2006	66,382,505	16,839,443	1,437,405	0	156,211	84,815,564	0.2%
2005	65,471,882	16,550,300	1,433,206	0	241,158	83,696,546	0.3%
2004	64,192,761	16,237,600	1,421,229	0	241,158	82,092,748	0.3%
2003	57,246,292	16,876,200	1,417,843	0	170,368	75,710,703	0.2%
2002	57,169,946	16,143,900	1,400,677	0	158,137	74,872,660	0.2%
2001	55,662,905	16,429,900	1,390,052	0	96,524	73,579,381	0.1%
2000	53,258,974	16,525,900	1,378,800	0	65,234	71,228,908	0.1%

Source: BC FLNRORD. 2015a and 2015b. G. Klassen. 2015 and 2018 pers comm.

1.2 Project Purpose

Recently Premier John Horgan stated: "Government will revitalize the forest industry's social contract with British Columbians, to ensure that the use of public timber generates good jobs in forest-dependent communities and provides a fair return for the public." (Vancouver Sun. 2018)

Community Forests by their very nature have been working to achieve this goal since their beginning. The objective of this study is to provide insight into the benefits that community forests bring to the rural and Indigenous communities they operate within.

In addition, a comparison is also made between the value created by community forests and the total forest activity in the province.

1.3 Methodology

1.3.1 MULTIPLE ACCOUNT ANALYSIS FRAMEWORK OVERVIEW

This report follows the multiple account analysis framework that is commonly used in socio-economic assessments. Government programs and public investments are often intended to address multiple objectives that have implications to communities, the environment, the economy, and government revenues. In British Columbia, it is now common to use a "multiple accounts" framework. The framework provides stakeholders and decision makers information on the full range of effects and supports an informed decision-making process (Ministry of Agriculture and Lands 2007).

Table 2 summarizes the key accounts and the associated key indicators. With respect to the community forests assessment of socio-economic implications, the distinct areas of interest, or accounts, include: economic development, government revenues and social implications.

Table 2: Socio Economic Multiple Accounts

Socio-Economic Account	Primary Indicators
Economic Development	Expected economic activity including indicators such as number of existing jobs, potential number of jobs, indirect and induced jobs and income.
Provincial Government Finances	Net provincial government revenues, including local community revenues in this assignment.
Social Implications	Population, jobs and incomes, distribution of job opportunities, resource-based recreation activities, and other aspects of wellbeing.
First Nations	Specific First Nation implications not addressed in other accounts.
Net Economic Value	Net gain in provincial economic welfare. Economic resources valued at social opportunity costs.

Source: BC Ministry of Agriculture and Lands, (2007).

1.3.2 Approach

The BCCFA produces a regular report looking at numerous metrics associated with community forests and the communities they benefit. Using the most recent report,

"Community Forests Indicators 2018 – Measuring the Benefit of Community Forests" several indicators were selected that could be readily compared to the total forestry activity in the province (BCCFA, 2018b). However, given that the BCCFA data is heavily weighted to the interior forest industry, it was determined that to create an accurate comparison with the employment figures of the provincial level forest industry, that it would be most appropriate to compare the Interior Community Forest values with the Total Interior Industry (the interior of British Columbia).

As mentioned above, and given the terms of reference, the focus of this study is on the Economic Development, Provincial Government Finances (including accruing to local government) and the Social Implications Accounts. The Economic Development Account compares direct employment and employment incomes associated with Interior Community Forests and the forest sector in general (See Appendix B for list of community forests from the interior of BC whose data was used for this study), utilizing the Community Forest's 2018 Indicator report.

The Provincial Government Finances look at government revenues at the provincial and community level. Community forests generate a stream of "dividends" that typically flow back to small rural and Indigenous communities. The rural and Indigenous revenue flows have been added to the Provincial Government Finance Account in this report. The Government Finances are based on a harvest volume of **1,466,638 m³** which represents the total volume of harvest reported by community forests participating in the 2018 Community Forests Indicators report and includes all community forests responding to the community dividend question in 2018 (BCCFA, 2018b).

The Assessment concludes with the Social Implications Account and reports on the community effects associated with community forests. This involves assessing how community forests have implications to non-priced amenity and quality of life considerations in rural and Indigenous communities. In addition, it highlights how having community forests in small rural and Indigenous communities also increases the capacity to undertake desired projects in the community.

1.4 REPORT OUTLINE

Following this introduction, the report is organized as follows:

- Section 2 outlines a brief socio-economic baseline with a focus on the trends in the overall forest sector and rural regional districts;
- Section 3 describes the employment and employment income comparison between Interior community forests and Total Interior Forest sector;
- Section 4 contains the government revenue account details and focuses on revenues to the province and communities;
- Section 5 outlines the social implications that community forests contain and focuses on statistical data collected in the 2018 Community Forest indicator report.

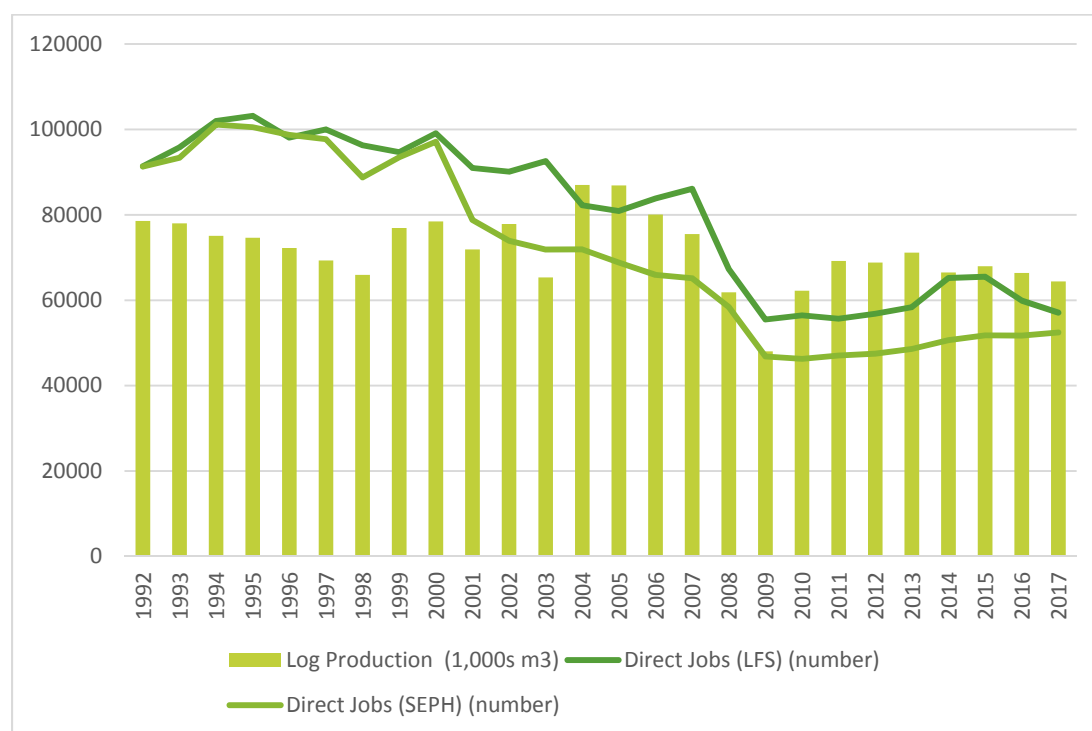
This is followed by detailed appendices which include additional information to support the project, and project references.

2 SOCIO-ECONOMIC BASELINE AND TRENDS

2.1 British Columbia Harvest and Forest Sector Labour Force Trends

As illustrated in Figure 1, the timber harvest in British Columbia (including harvest on private lands) has typically remained between 62 and 85 million cubic metres between 1991 and 2017, total employment in the forest sector has declined significantly over the period.

Figure 1: BC's Forest Sector Labour Force and Provincial Harvest, 1991 to 2017



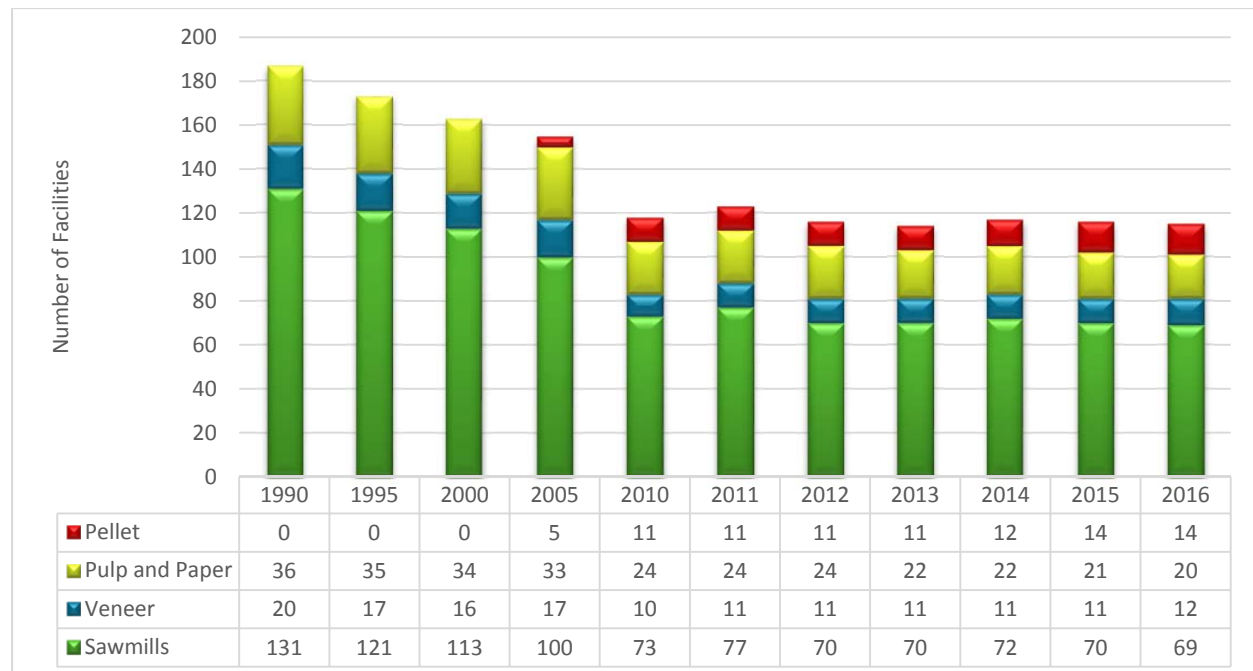
Source: Canadian Forest Services (2018).

Note: Forest Sector labour force is measured using Labour Force Survey (LFS) and Survey of Employment, Payroll and Hours (SEPH) (SEPH data set does not include self-employment) prepared by Statistics Canada.

Employment in British Columbia's forest sector peaked around 1995 with a labour force of 103,000 when the timber harvest was approximately 74.6 million m³. Employment held near 100,000 until approximately 2000 before starting to steadily decline. By 2016, the forest sector labour force was just under 60,000, a 42% decline from 1995. This is despite the provincial harvest volumes declining by only 11% between 1995 and 2016.

As illustrated in Figure 2, this period also corresponds to reductions in major primary timber processing facilities in British Columbia and is lead by significant reductions in the number of pulp and paper mills, sawmills, and veneer plants.

Figure 2: BC Major Primary Timber Processing Facilities Counts, 1990 to 2016



Source: BC FLNRORD (2015c) (2018)

2.2 Forest Industry Employment Coefficients Trends

A simple way to express the rate of employment creation from forestry activity is in terms of the employment coefficient (jobs per 1,000 m³ of timber harvested) for a jurisdiction. As a result of the above employment and harvest activity – and as illustrated in Table 3 – the forest sector employment coefficient for British Columbia has generally trended downward, dropping from around 1.30 jobs/1,000 m³ in 1993 to around 0.80 jobs/1,000 m³ in 2014; before stabilizing between 2015 and 2017. It is important to remember that these coefficients include both forestry and logging employment, and wood product manufacturing (solid wood and pulp and paper) employment, and they represent total direct jobs in the forestry sector.

Table 3: British Columbia Forest Sector Employment Coefficients – Jobs per 1,000 m³

	1994 to 1996	1997 to 1999	2000 to 2002	2003 to 2005	2006 to 2008	2009 to 2011	2010 to 2012	2011 to 2013	2012 to 2014	2015 to 2017
LFS	1.37	1.38	1.20	1.08	1.06	0.91	0.83	0.80	0.84	0.91
SEPH	1.35	1.32	1.14	0.91	0.88	0.79	0.69	0.67	0.68	0.78

Source: Canadian Forest Service (2018). Barnes, 2018 pers comm.

Note: Three-year averages have been derived using the Labour Force Survey (LFS) data and Survey of Employment, Payroll and Hours (SEPH) (SEPH excludes self-employment).

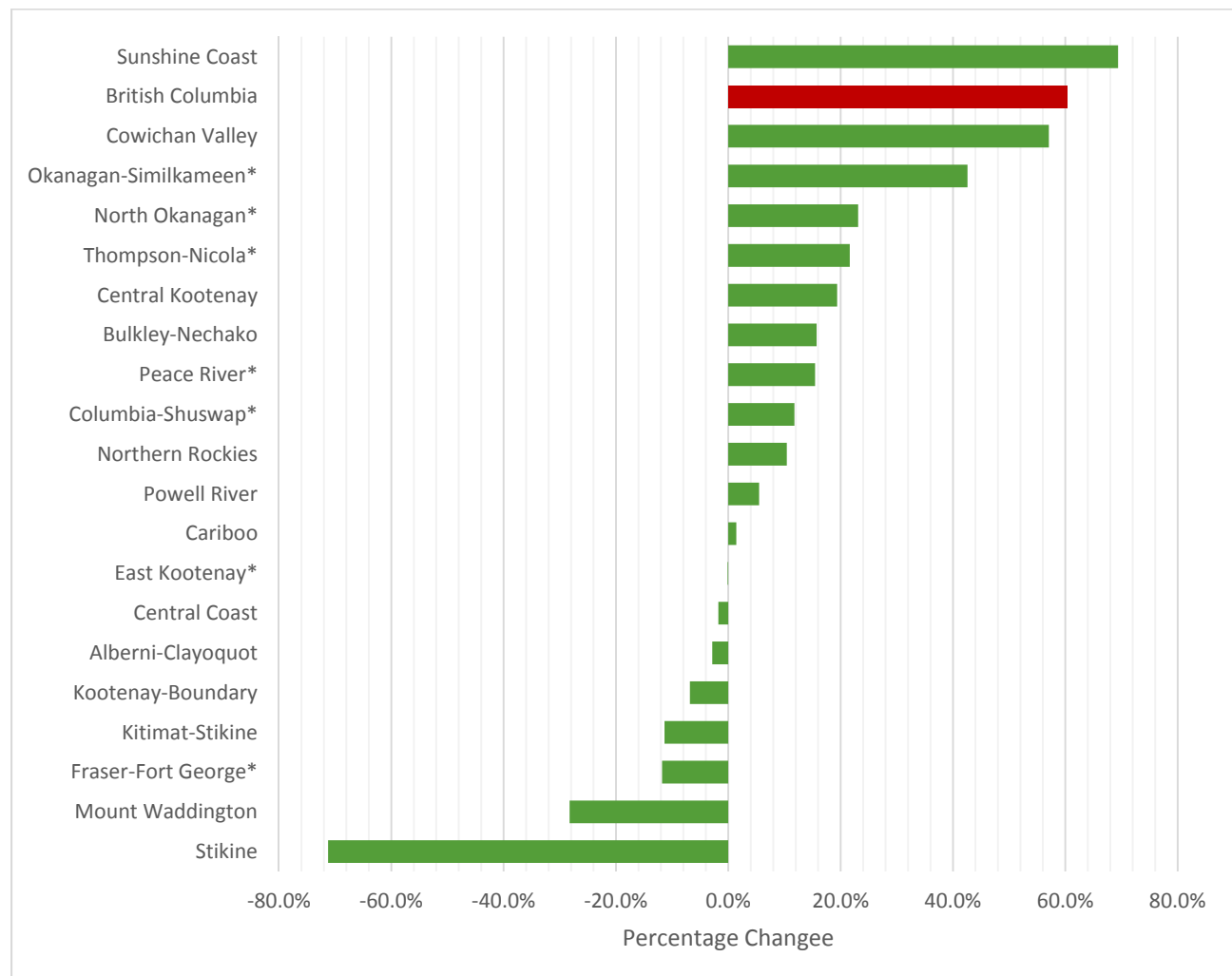
2.3 Changes in Rural British Columbia

2.3.1 Rural Regional District Population Change

Figure 3 outlines the change in population between 1986 and 2017 for regional districts with a predominately rural population. Regional districts identified by a star "*" have had the largest municipality removed from the regional district number to better highlight the rural population change.

As illustrated, only the Sunshine Coast Regional District has managed to outpace the provincial population growth rate over the period, while the remainder have lagged. In addition, eight regional districts with rural populations have actually lost population over the 1986 to 2017 period (See Appendix A for detailed population change).

Figure 3: Population Change in Rural Regional Districts and British Columbia, 1986 to 2017



Source: BC Stats (1998) (2004) (2015) (2018)

Note: Regional Districts noted with a "*" have had the largest municipality removed from their regional district data and include: Okanagan-Similkameen (Penticton); North Okanagan (Vernon); Thompson-Nicola (Kamloops); Peace River (Fort St. John); East Kootenay (Cranbrook); Fraser-Fort George (Prince George); and Columbia-Shuswap (Salmon Arm).

A key component of the rural economy has been the forest sector. Historically forestry was often by far the largest basic sector in many rural communities in British Columbia. Forestry employment was a key factor in creating high paying jobs and stable employment, placing much of rural BC on similar income level as urban British Columbia. However, over the past fifteen years there has been a consistent decline across rural Regional Districts and in the province. As illustrated in Table 4, rural

Regional Districts such as the Northern Rockies and Central Coast have virtually been removed from the forestry economy despite having considerable forest resources. This transition has primarily occurred during a period of elevated timber harvest levels as a result of the mountain pine beetle epidemic.

Table 4: Change in Forestry Labour Force in Rural Regional Districts Between 2001 and 2016

	2001	2016	Change from 2001	
			Number	Percentage
Northern Rockies Regional District	620	55	-565	-91.1%
Central Coast Regional District	220	40	-180	-81.8%
Kitimat-Stikine Regional District	2,655	790	-1,865	-70.2%
Alberni-Clayoquot Regional District	2,960	1,355	-1,605	-54.2%
Mount Waddington Regional District	2,020	995	-1,025	-50.7%
Cowichan Valley Regional District	3,865	2,150	-1,715	-44.4%
Fraser-Fort George Regional District	3,575	2,105	-1,470	-41.1%
Kootenay Boundary Regional District	1,310	775	-535	-40.8%
Powell River Regional District	1,455	875	-580	-39.9%
Sunshine Coast Regional District	1,295	875	-420	-32.4%
Okanagan-Similkameen Regional District	1,265	860	-405	-32.0%
East Kootenay Regional District	1,720	1,205	-515	-29.9%
Central Kootenay Regional District	3,310	2,415	-895	-27.0%
Thompson-Nicola Regional District	3,125	2,315	-810	-25.9%
Bulkley-Nechako Regional District	5,670	4,350	-1,320	-23.3%
Cariboo Regional District	7,910	6,070	-1,840	-23.3%
North Okanagan Regional District	1,780	1,490	-290	-16.3%
Peace River Regional District	1,765	1,655	-110	-6.2%
Stikine	10	10	0	0.0%
British Columbia	95,665	61,175	-34,490	-36.1%

Source: Statistics Canada (2001) (2018).

3 ECONOMIC DEVELOPMENT ACCOUNT

3.1 Person-Years Comparison

Table 5 outlines the person-years of employment by Interior Community Forests and Interior Total Forest Industry if they each harvested 1,466,638 m³. As mentioned above, the timber harvest of 1,466,638 m³ represents the timber harvested by community forests that responded to the Community Forest Indicators 2018 survey (BCCFA 2018b). This harvest creates employment across three forestry categories including: forestry and logging and support activities; wood manufacturing; and paper manufacturing.

As illustrated in Table 5, the person-years of employment created by Interior Total Forest Industry when harvesting 1,466,638 m³ collectively created 1,135 person-years of direct employment. However, if this same volume was harvested by the Interior Community Forests, it would create an estimated 1,734 person-years of direct employment.

Overall, the Interior Community Forests create an additional 599 person-years more of employment than would be observed by the Interior Total Forest Industry on a comparable harvest of 1,466,638 m³ of timber. This represents almost 53% more person-years of employment generated from Interior Community Forests than from the Interior Total Forest Industry.

Table 5: Community Forests and Total Interior Region, Direct Person-Years Comparison

	Total Interior	CF Interior	Difference
Forestry and Logging with Support Activities	363	642	280
Wood and Paper Manufacturing	772	1,092	320
Total	1,135	1,734	599

Source: BC FLNRORD. (nd) (2015a), (2015b), BCCFA (2018b).

Much of the employment from both the Interior Community Forests and Total Interior Forest Industry would be from communities in close proximity from the area where the wood is harvested. However, the Interior Community Forests higher employment in forestry, logging and supporting activities likely creates a higher local employment benefit given the greater likelihood of these workers being from within the local area.

3.2 Employment Income Comparison

Table 6 highlights the employment income associated with the person-years of employment above. The Total Interior Forest Industry person-years of 1,135 would generate a total of \$86.3 million in employment income, while the Interior Community Forests would generate \$130.5 million in employment income.

Overall, this represents an additional \$44.1 million in employment income on a harvest of only 1,466,638 m³.

Table 6: Total Interior Region and Community Forests, Employment Income Comparison

	Total Interior	CF Interior	Difference
Forestry and Logging with Support Activities	\$28,524,762	\$50,503,216	\$21,978,454
Wood and Paper Manufacturing	\$57,806,932	\$79,986,012	\$22,179,080
Total	\$86,331,694	\$130,489,228	\$44,157,534

Source: Statistics Canada (2016) and BCCFA (2018b)

3.3 Employment and Employment Income Summary

Table 7 highlights the totals for both total direct employment and employment income derived from the harvest of 1,466,638 m³.

Table 7: Summary of Employment and Employment Income for Total Interior Industry and Interior Community Forests

	Total Interior Forestry (Major Licensees)	Interior Community Forests
Harvest: 1,466,638 m³		
Direct Employment (Person-years)	1,135	1,734
Direct Employment Income (\$)	\$86,331,694	\$130,489,228

4 GOVERNMENT FINANCE ACCOUNT

4.1 Overview of Government Revenues

The forest resource in British Columbia generates a range of revenues for governments, including stumpage revenue and personal income to the provincial government, and dividend income to the rural communities and First Nations that hold community forest tenures.

4.2 Stumpage Revenue

Table 8 highlights the stumpage revenue from each tenure type in British Columbia that would be derived from Community Forest Indicators 2018 survey of 1,466,638 m³.

British Columbia Timber Sales revenue has been adjusted so that net stumpage to the province is presented (See Appendix D for approach in determining net stumpage).

Overall, other crown tenure types, which includes stumpage paid by major licences from forest licences and Tree Farm Licences, yielded about \$12.11 per cubic metres in 2017 at the provincial level. This is compared to \$1.72 per cubic metres for community forests in the same period. As a result, the harvest from other crown tenure types generates approximately \$17.8 million from 1,466,638 m³, compared to \$2.5 million from community forests in 2017.

Table 8: Stumpage Revenue Generated by Various Tenure Types, 2017 Community Forest Harvest

	BCTS	Other Crown	Woodlot	CF
Per cubic metre \$	\$8.63/m ³	\$12.11/m ³	\$1.85/m ³	\$1.72/m ³
Harvest: 1,466,638 m³				
Total Revenue	\$12,657,086	\$17,767,208	\$2,717,159	\$2,522,355

Source: A. Barnes, 2018 pers. comm.; R. Schultz, 2018 pers. comm.

4.3 Personal Provincial Income Tax

Based on the employment generated by 1,466,638 m³, approximately \$7.2 million would be generated by personal income tax payments from Interior Community Forest employment income, while \$5.1 million would be generated by the Total Interior Industry from employment income personal provincial income taxes. This represents an additional \$2.1 million in provincial personal income tax from Interior Community

Forests than would be generated by the Total Interior Forest Industry. Overall, this represents an additional provincial income tax stream of approximately \$1.60 per cubic metre.

Table 9 outlines the personal provincial income taxes paid from employment income associated with the Total Interior Forest Industry and the Interior Community Forests.

Table 9: Personal Provincial Income Tax

	Total Interior	CF Interior	Difference
113 Forestry and logging	\$1,561,972	\$2,765,478	\$1,203,506
321 Wood product manufacturing	\$3,155,312	\$4,301,632	\$1,146,320
Total	\$4,717,284	\$7,067,110	\$2,349,826

Source: Statistics Canada (2016)

4.4 Local Government Property Tax Payments

The processing of wood products occurs throughout British Columbia with the wood processing facilities, mill yards and administrative infrastructure paying property taxes to local municipal, regional and Indigenous governments. The harvest of 1,466,639 m³ for all licence types including community forests predominately goes to value added and primary processing facilities throughout the province and directly contributes approximately \$1.56 per cubic metre in local property taxes (Barnes, 2018 pers comm.). As highlighted, this represents approximately \$2.3 million annually, regardless of where the volume is harvested from.

Table 10: Property Taxes Paid to Local Governments,

Harvest: 1,466,638 m³	Total Interior Forestry (Major Licensees)	Interior Community Forests
Local Property Taxes	\$ 2,287,955	\$ 2,287,955

4.5 Direct Payments to Communities

Table 11 outlines the payments made by community forests in 2017 to their municipal and Indigenous communities that own them. Overall, a total of 36 community forests (coastal and interior) made payments totalling approximately \$12.0 million in 2017. A further three community forests were not able to or chose not to contribute to their communities in 2017.

Table 11: Total Community Forest Cash Contributed to Communities in 2017

Harvest: 1,466,638 m³	
Number of Community Forests that made Contribution	36
Average of Those that made contributions	\$334,522
Total Contributions	\$12,042,822

Source: BCCFA. (2018b)

As for major licences, they do not make direct dividend payments to local government in a similar fashion. However, the COFI 2016 report on forestry in B.C. highlighted that the 19 companies responding to their survey reported total financial contributions and donations of \$2 million in 2016 (PWC. 2017). In 2016 it is estimated that these 19 companies harvested 34,496,948 m³ (Barnes, 2018 pers comm.). Based on the harvest and donation a coefficient for the COFI member contribution would yield approximately \$85,030 on the harvest of 1,466,638 m³.

Furthermore, both community forests and major licences do make in-kind contributions. For the 39 community forests, a total in-kind contribution is estimated at approximately \$929,000 (BCCFA.2018c). This further in-kind contribution is associated with the 1,466,638 m³ reported by the participating community forests in the 2018 indicator report. The COFI report also identified that these companies made additional in-kind contributions to support cultural, social and environmental causes (PWC. 2017). However, there is no associated metric reported on the level of in-kind contributions made by COFI survey participants.

It is also important to note that community forests are investing in the future economic return of the forest through intensive silviculture. The total investment for 2017 was approximately \$1.7 million, 64% of which came from their own funds.¹ The reporting community forests identified \$513,117 from the Ministry of Forests, Lands, Natural Resource Operations and Rural Development's Forests for Tomorrow program. The attributes of the community forest tenure, being long-term and area-based, create strong incentives for investment in the future productivity of the land base. As such,

¹ The \$1.7 million reported here is an updated number from that reported in the 2018 Community Forests Indicator Report.

community forests are an effective delivery mechanism for funding offered through Forests for Tomorrow and the Forest Enhancement Society of BC, among other priority government investments.

Finally, it should also be noted that community forests remained focused on making a direct revenue stream available to their local communities where the forestry resource exists, compared to the major licensees which have in recent years been reallocating surplus revenues generated in British Columbia to major mill purchases in other jurisdictions such as the United States.

4.6 Revenue Summary

Table 12 summarizes the provincial and local government revenue that would be associated with the four revenue streams outlined above: stumpage; employment income taxes; local government property taxes; and, dividends and contributions to local government. Overall, the provincial forest industry generates revenue for the provincial government, while community forests revenues is more equitably shared between local and provincial governments. Based on a harvest of 1,466,638 m³, the total Forest Industry would generate just over \$937,000 more than seen within the community forests.

Table 12: Summary of Revenue for Major Licensees and Community Forests

Provincial Revenues	Other Crown (Major Licensees)	Community Forests
Total Stumpage Revenue (coastal and interior)	\$17,767,208	\$2,522,355
Employment - Personal Income Taxes (interior)	\$4,717,284	\$7,067,110
Local Municipal, Regional District and Indigenous Revenues		
Local Government Property Tax Payments	\$2,287,955	\$2,287,955
Contributions and Dividends (coastal and interior)	\$85,030 ²	\$12,042,822 ³
Total	\$24,857,478	\$23,920,242

² As mentioned above, major licensees do not pay dividends or make direct financial contributions to local governments; however, they do make financial donations to organizations and communities across the province.

³ Does not include in-kind contributions made by community forests or major licensees.

5 SOCIAL IMPLICATIONS ACCOUNT

5.1 Overview of Social Benefits

Several key social implications including social, cultural and environmental benefits are highlighted in the BCCFA's Community Forests Indicators 2018 report (See Appendix F for the survey highlights) (BCCFA. 2018b). The most relevant to this study are described here.

5.2 Indigenous Engagement

Of the fifty-seven operating community forests in BC, 15, or 26%, are partnerships between Indigenous and rural communities. Thirteen (23%) are held solely by an Indigenous community. Community forests create tangible working relationships between rural communities and Indigenous communities that will likely lead to additional partnerships in the future. A good example is the Chinook Community Forest near Burns Lake. Their manager, **Ken Nielsen**, describes the advantages:

"The Chinook Community Forest is a partnership of six First Nations and two non-Indigenous local governments. This gives First Nation shareholders a combined 85% ownership and a real say on how they would like to see their land base managed. This ownership creates opportunities for First Nations in the forest sector, where otherwise these doors don't open very easily. It also shows how we can sit at the same table, learn about each other's values, cultures and traditions and work together for the benefit of the whole community."

Thomas Phillips, Xats'ull First Nation and Director, Likely-Xats'ull Community Forest (LXCF) has been involved in community forestry for many years:

"As a Director of the LXCF I have seen the benefits of having an area-based community forest to both communities. Each year profits are distributed to both Likely and Xats'ull for community projects. The community forest also helped create jobs for both communities and other economic spinoffs. As a Director of the LXCF, I have also learned a great deal about working with a non-First Nations Community and look forward to continuing to work with the community of Likely. I am grateful for the expansion to the LXCF and feel that it a good first step in the reconciliation process between First Nations and the B.C. government."

Further, **Tania Solonas**, McLeod Lake Indian Band Land Management Officer and Director, McLeod Lake MacKenzie Community Forest (MLMCF) has stated:

"The partnership between the McLeod Lake Indian Band and the District of Mackenzie has been an amazing journey of working together for the greater good of both of our communities. As a managing partner of a community forest within our Traditional Territory, we truly are shaping the forest practices around McLeod Lake and Mackenzie, with sustainability, environmental stewardship and watershed protection at the forefront. The relationships that have been continually building over the years will have far-reaching effects regarding the social well-being of our community members and our economy as a whole. After almost a decade of moving forward with a plan for the future, the returns have paid off ten-fold, helping our Nation with the building of our Ah'Da Centre. This centre houses our Tse'Khene Food + Fuel gas station and bed & breakfast, the Little Teapot Café, our fire hall, with public works and forestry bays.

This accomplishment has helped not only McLeod Lake and the surrounding community, but the residents of Mackenzie and motorists that travel through the Pine Pass, which is a major economic corridor in our region. The partnership implemented for our community forest can be a good model for McLeod Lake Indian Band to follow, when moving forward with future servicing agreements and land use planning initiatives between the District of Mackenzie and the Regional District of Fraser-Fort George; a step towards working together on a government-to-government basis."

Finally, **Kerry Mehaffey**, Director of Business and Economic Development, Lil'wat Nation, and Director on the Cheakamus Community Forest Partnership Board points out:

"Overall, the CFA is a positive experience. We have found that we have more in common than we have differences. We have developed a new level of respect and mutual understanding and our differences are not personal. In fact, we get along and like each other."

In addition to these partnerships, in many cases, First Nations participate on the Boards, engage in cooperative planning, and share profits. There are many examples of Memorandums of Understanding between communities, employment contracts, and

work with community forest organizations in capacity building activities like skills training and project management. Overall, as area-based tenures, community forests facilitate the conservation of culturally significant areas and values. Community forests are creating economic wealth for both partner communities and helping reshape local economies that will create future sustainable economic activity with local direction and control.

The expansion of the community forest program will expand the opportunity for more successful partnerships between Indigenous and rural communities.

5.3 Public Engagement

Community forests engage with the diversity of community members and stakeholder groups. In the most recent survey, respondents reported in targeted outreach with numerous organizations and groups including:

- | | |
|-------------------------|---|
| 1) Water Users | 8) Motorized recreation groups |
| 1) Property owners | 9) Horseback riding groups |
| 2) Tourism associations | 10) Cross country and back country ski groups |
| 4) Chamber of Commerce | 11) Watershed restoration groups |
| 5) Environmental groups | 12) Mushroom harvesters |
| 6) Hunters | 13) Commercial recreation tenure holders |
| 7) Hiking Groups | 14) Disc golf group |
| | 15) Youth groups |

Community forests often have a diversity of community perspectives on their Boards and are continually working with community groups with upwards of forty-four percent having formal agreements with community organizations.

Overall, comprehensive outreach to forest users and community organizations leads to an improved awareness of forest management among the public and increases conflict resolution that may arise over timber harvesting in watersheds and other sensitive areas.

This is a key component of relationship building and the cultivation of social licence (see Appendix E for more on this topic).

5.4 Investment in Wildfire Management

Many community forests are leaders in the proactive management of wildfire hazards. To date, seventy percent of survey respondents have collaborated with their local government on Strategic Wildfire Prevention Initiative projects. Twenty-two community forests applied for Forest Enhancement Society BC funds in the last intake alone.

Half of the respondents made investments to reduce the threat of wildfire in the reporting year. Community forests treated an average seventy-one hectares and spent approximately \$17,000 of their own funds to reduce wildfire risk. To date, the reporting community forests have collectively treated 3,522 hectares and invested over \$1.8 million in wildfire mitigation, and they have leveraged an additional \$6.5 million to address this critical community issue.

The importance of the relationship between community forests and wildfire management can be seen clearly in Logan Lake. As stated by **Garnet Mierau**, RPF, Logan Lake Community Forest:

"The Firestorm of 2003 was the catalyst for Logan Lake to apply for a community forest agreement. From the onset, the community forest has been managed to reduce the risk of fire in the wildland/urban interface through fuel reduction strategies. This commitment is demonstrated through the ongoing work of the Youth FireSmart Team. This strategically funded annual program is a collaboration between the Logan Lake Community Forest, the District of Logan Lake, and the Logan Lake Wellness, Health & Youth Society. This team of local teenagers furthers our fuel reduction efforts by doing manual labour with hand tools like spacing, pruning and piling woody debris.

Does all this hard work pay off? Yes. In July 2017 the Logan Lake Community Forest experienced a human-caused fire just south of town. Thankfully it fell within an area we just treated two years prior. The fire never grew larger than half a hectare. The scorched trunks of the trees told the story. With no ladder fuels or dense understory to climb up into the canopy, the flames only crept along the tinder dry grass, licking and charring the Douglas-fir, never getting too hot or too fast to do any significant damage.

The Logan Lake Community Forest is also a leader in British Columbia with landscape level strategic planning for wildfire. In 2017, we were successful in our proposal to the Forest Enhancement Society of BC to pilot a Wildfire Risk Management Plan covering the entire tenure area. This risk management planning process will pave the way for other communities in the province.

An expansion of our Community Forest would certainly be beneficial towards proactive management of wildfire risk."

The Esk'etemc First Nation Community Forest, managed by Alkali Resource Management (ARM), is another example of how the community forest tenure positions communities to be leaders in wildfire. **Gord Chipman**, RPF, Forest Manager for ARM and Cariboo Aboriginal Forest Enterprises Ltd explains:

"The Esk'etemc have been addressing fire risks around our communities since 2006. Now we are addressing the fire hazards at a landscape level as well as building capacity to provide over 50 wildland fire fighters every year. In the last year we have surveyed 200 hectares for fuel types that were identified by a Strategic Threat Analyse as well as removed fuel from 100 hectares that was identified through our single cutting permit process on the Community Forest."

These are two examples of the many community forests that have made wildfire mitigation a priority. In so doing, they are building community capacity and creating more local jobs. As evidenced by the Community Forest Indicators 2018 report, this ingenuity and resourcefulness is common among community forest organizations as they work to find creative ways to leverage the opportunities created by having a long-term area-based tenure.

5.5 Investment in Enhanced Forest Stewardship

Community forests regularly invest in enhanced forest stewardship, incremental to legal requirements. The activities include the enhanced management of sensitive areas (domestic and community watersheds; riparian areas; visually sensitive areas; potentially unstable and unstable terrain; areas with archaeological values or cultural heritage; identified and critical wildlife habitat; fisheries sensitive watersheds; recreation trails and sites; and areas identified as sensitive by the community), as well as information

gathering and planning, and monitoring and research, including inventory and extra surveys that are above and beyond legal requirements.

In 2018, thirteen, or thirty-six percent of community forests respondents to the Community Forests Indicator 2018 survey, made investment in enhanced management of \$1.6 million. This investment resulted in twelve community forests reportedly treating 7,502 hectares of land both inside and outside of the community forest boundary.

Overall, community forest organizations are making significant investments in the ecological integrity of the forests they manage. Examples of stewardship activities cited in the survey include:

- Strategies to manage for wildlife, water quality and visuals.
- Inventory plots and spatializing Mule Deer Winter Range Snow Interception Cover areas.
- Wildlife monitoring study on coarse woody debris corridors to determine levels of small furbearer activity.
- Partial cutting to address environmental and social values.
- Monitoring of goat habitat and modified operations to meet goat habitat objectives.
- Grassland restoration.

5.6 Investment in Community Education

Community forests offer an opportunity to link community members to the forest and to increase their understanding of forest ecosystems and management. Investments tracked in the BCCFA's Community Forest 2018 Indicators survey included school presentations, field trips, public events, as well as training supported by the community forest (such as first aid, faller certification, etc.) by community forest staff, contractors, employees and volunteers. A total of 25 Community Forests reported an investment of \$176,295 in 2018 (BCCFA. 2018b).

5.7 Investment in Recreation

Many community forests enhance the quality of life of local residents by creating, improving and maintaining local recreational infrastructure and opportunities. In 2018, 22 community forests invested \$585,211 in recreational activities on their land bases. In

addition, while community forests are using their own funds to enhance recreational activities and features, they collectively leveraged \$953,443. To date they have invested \$ 2.9 million of their own funds, plus leveraging an additional \$2.7 million. Additionally, as a result of their mountain pine beetle uplift, the Vanderhoof Community Forest invested \$1 million in the Vanderhoof Aquatic Centre.

Many community forests put a high priority on community access to recreational activities on the community forest land base. As community forests often surround communities, they provide prime recreation areas and features such as cross-country skiing, mountain biking and walking trails. Ultimately, investment in this recreational infrastructure supports the health and well-being of the community while also contributing to local economic development.

5.8 Social and Community Contract

The categories discussed above go to support community forests as a tangible way to restore the social contract with communities across British Columbia. Specifically, the Province's social contract comes when there is more local control of resources, and community members see that the benefits of harvesting stay in the community. As highlighted in Table 4, there has been considerable job loss in the forest sector across the British Columbia over the past 15 years which has created significant hardships in many communities, with rural areas being particularly hard hit. This is making the importance of the social contract with communities that much more critical.

Further, most community forests are located in the land surrounding communities, in highly visible areas, and with many overlapping values. Community forests often contain a greater percentage of sensitive areas than the average in the Timber Supply Area. When combined with many of the economic benefits the real potential of community forest management emerges. They can operate in challenging areas, while still meeting cut control, supplying logs to a wide range of users, and creating jobs, revenues for local governments, and other benefits for their communities.

Overall, the combined public benefits from community forest agreements from direct stumpage payments and the social, economic and environmental benefits that result from the unique government goals for the program represent the true return to the province from community forest agreements.

6 CONCLUSION

The key conclusions identified in this report include:

- Employment in the forest sector has declined by almost 35,000 or 36% over the last 15 years. This has been particularly hard on Indigenous and rural communities in British Columbia which have lost an important part of the good paying jobs in their communities.
- Community forests make up just over 2.1 million cubic metres or 3.1% of the provincial AAC in 2017. However, for those Indigenous and rural communities that participate in community forests they have now established a model of generating local benefits in the form of employment, income, and social benefits.
- In a comparison to the Interior Forest Industry, Interior Community Forests clearly create greater employment for cubic metre of wood harvested. Based on 2017, harvest from Interior Community Forests created approximately 53% more employment than the same volume harvested in the Total Interior Forest Industry.
- Both the forest industry and community forests generate a significant stream of revenues for local and provincial governments. Based on revenues from stumpage, personal income taxes, local government property taxes, and contribution payments and dividends on a harvested volume of 1,466,638 m³ the Major Licensees pay approximately \$24.8 million compared \$23.9 million by community forests. The key difference being Major Licensees make the majority of their payment to the provincial government while community forests revenues accrue to Indigenous and rural communities.
- Indigenous and rural communities with community forests are receiving several social benefits and building capacity in land management and collaborative decision making through efforts in:
 - Indigenous engagement;
 - Public engagement;
 - Investment in wildfire management;
 - Investment in enhanced forest stewardship;
 - Investment in education; and,
 - Investment in recreation.
- Overall, community forests, through the various interactions and partnerships on the land base create the social licence to conduct sound forestry activity that can

demonstrate benefits to Indigenous and rural communities and a range of engaged stakeholders.

APPENDIX A - REFERENCES

A-1 LITERATURE CITED

- Barnes, Alexander. 2018. Acting Senior Economist, Economic Services Branch BC Ministry of Forests, Lands, Natural Resource Operations, and Rural Development. Data from the Harvest Billing System for COFI major licensee survey participants. Email sent on November 22, 2018.
- BC Ministry of Agriculture and Lands. 2007. Guidelines for Socio-Economic and Environmental Assessment (SEEA). Land Use Planning and Resource Management Planning. Available at: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/policies-guides/seea_guidelines_lup_rmp.pdf. Accessed October 11, 2018.
- British Community Forest Association of BC (BCCFA). 2018a. About Us. Available at: <http://bccfa.ca/category/about-us-3/>. Accessed September 5, 2018.
- British Community Forest Association of BC (BCCFA). 2018b. Community Forest Indicators 2018: Measuring the Benefits of Community Forestry. Available at: <http://bccfa.ca/category/bccfa-publications/>. Accessed September 30, 2018.
- British Columbia Forest Association of BC (BCCFA). 2018c. Community Forests Indicators 2018 – Special Data run and Cross Tab on Data Set.
- BC Council of Forest Industries (COFI). 2017. British Columbia's Forest Industry and the B.C. Economy in 2016. Available at: <https://www.cofi.org/forest-industry-for-our-province/>. Accessed November 4, 2018.
- BC Forests, Lands and Natural Resource Operations (BC FLNRORD). 2018. Major Primary Timber Processing Facilities in British Columbia - 2016. Available at: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/fibre-mills/2016_mill_list_report_final5.pdf. Accessed September 16, 2018.
- BC Forests, Lands and Natural Resource Operations (BC FLNRORD). 2015a. Community Forests Status – Issued and Invited Community Forests as of June 9, 2015.
- BC Forests, Lands and Natural Resource Operations (BC FLNRORD). 2015b. BC TFL and TSA AACs by Year and List of First Nation Woodland ACCs by issue date.
- BC Forests, Lands and Natural Resource Operations (BC FLNRORD). 2015c. Major Primary Timber Processing Facilities in British Columbia - 2013.
- BC Ministry of Forests, Lands, Natural Resources Operations and Rural Development (BC FLNRORD). Nd. Direct Impacts based on Harvest. Incorporates special run from BC Stats Input-Output Model.

- BC Stats. 2018. British Columbia Development Region and Regional District Population Estimates 2011 – 2017. Available at: <https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates>. Accessed September 12, 2018.
- BC Stats. 2015. British Columbia Development Region and Regional District Population Estimates 2001 – 2011. Available at: <https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates>. Accessed September 12, 2018.
- BC Stats. 2004. British Columbia Municipal and Regional District Population Estimates 1996 – 2004.
- BC Stats. 1998. British Columbia Municipal and Regional District Intercensal Population Estimates 1986 – 1996.
- Canadian Forest Service. 2018. Statistical Data. Available at: <http://CommunityForests.nrcan.gc.ca/statsprofile/economicimpact/bc> Accessed September 16, 2018.
- Pricewaterhouse Coopers (PWC). 2017. British Columbia's Forest Industry and the B.C. Economy in 2016. Available at: <https://www.cofi.org/wp-content/uploads/BC-Forest-Report-FINAL-Sept-2017.pdf>. Accessed December 3, 2018.
- Statistics Canada. 2018. 2012 Labour Force Status and Industry by North American Industry Classification (427A) for Population Aged 15 years and Over in Private Households. Custom Run by CD and CSD.
- Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016300. Available at: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/Rp-eng.cfm?LANG=E&APATH=7&DETAIL=0&DIM=0&FL=W&FREE=0&GC=0&GID=0&GK=0&GRP=1&PID=111860&PRID=10&PTYPE=109445&S=0&SHOWALL=0&SUB=0&Temporal=2016.2017&THEME=0&VID=0&VNAMEE=Work%20activity%20during%20the%20reference%20year%20%289%29&VNAMEF=Travail%20pendant%20l%27ann%EF%BF%BDe%20de%20r%EF%BF%BDf%EF%BF%BDrence%20%289%29>. Accessed October 7, 2018.
- Statistics Canada. 2017. Census Profiles (table). 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released October 25 2017. Available at: <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>. Accessed September 12, 2018.
- Statistics Canada. 2001. 1997 North American Industry Classification (422), Class of Workers and Sex for Labour Force 15 years and Over. Data for British Columbia, Regional Districts and Municipalities. Run by CD and CSD.
- Vancouver Sun. 2018. Vaughn Palmer: BC Government Trying to Reconnect Resources to Communities. Published February 14, 2018. Available at: <https://vancouversun.com/opinion/columnists/vaughn-palmer-b-c-government-trying-to-re-connect-resources-to-communities>. Accessed November 14, 2018.

A-2 PERSONAL COMMUNITICATIONS

Barnes, Alex. Acting Senior Economists, Economics Services Branch. BC Ministry of Forests Lands, Natural Resource Operations and Rural Development. Telephone and Email communications July through November, 2018.

Chipman, Gord. RPF. Forest Manager of Alkali Resource Management and Cariboo Aboriginal Forest Enterprise Ltd. Email communication November 23, 2018.

Klassen, Geoffrey. Timber Tenure Forester, Ministry of Forests Lands, Natural Resource Operations and Rural Development. Email communications October 2, 2018.

Mehaffy, Kerry. Director of Business and Economic Development, Lil'wat Nation, and Director on the Cheakamus Community Forest Partnership Board. Email communication November 13, 2018.

Mierau, Granet. RPF. Logan Lake Community Forests. Email communication November 19, 2018.

Nielsen, Ken. Manager. Chinook Community Forest near Burns Lake. Telephone communication November 12, 2018.

Phillips, Thomas. Xats'ull First Nation and Director, Likely-Xats'ull Community Forests. Email communication November 27, 2018.

Solonas, Tania. McLeod Lake Indian Band Land Management Officer and Director. Email communication November 19, 2018.

Appendix B – INTERIOR COMMUNITY FORESTS

The following BCCFA members from the BC Interior contributed to the Community Forest Indicators Survey.

- 1) 100 Mile Development Corporation
- 2) Burns Lake Community Forest Ltd
- 3) Cheslatta Carrier Nation
- 4) Chinook Comfor LP
- 5) Clinton & District Community Forest of BC Ltd.
- 6) Creston Community Forest
- 7) Dungate Community Forest
- 8) Eniyud Community Forest
- 9) Esk'etemc First Nation (Alkali Resource Management Ltd.)
- 10) Fort St. James Community Forest
- 11) Harrop-Procter Community Co-op
- 12) Kaslo & District Community Forest Society
- 13) Likely Xats'ull Community Forest Ltd.
- 14) Little Prairie Community Forest
- 15) Logan Lake Community Forest
- 16) Lower North Thompson Community Forest Society
- 17) McBride Community Forest Corporation (MCFC)
- 18) McLeod Lake Mackenzie Community Forest
- 19) Nakusp and Area Community Forest (NACFOR)
- 20) Slocan Integral Forest Initiative Co-operative (SIFCo)
- 21) Tumbler Ridge Community Forest Corp.
- 22) Valemount Community Forest
- 23) Vanderhoof Community Forest
- 24) Wells Gray Community Forest Corp
- 25) Wells-Barkerville Community Forest
- 26) West Boundary Community Forest
- 27) Westbank First Nation Community Forest
- 28) Wetzin'kwa Community Forest Corporation
- 29) Xaxli'p Community Forest Corporation

Appendix C – EMPLOYMENT COEFFICIENTS

C-1 Interior Current Total and Community Forests Employment Coefficients

To further refine the employment coefficients, BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development (BC FLNRORD) has partnered with BC Stats to utilize the BC Stats Input-Output model to develop current employment coefficients (Barnes 2018, pers. comm.). The employment coefficients can be presented in person-years of employment which allows comparison with the employment coefficients prepared by the Community Forests Association of British Columbia (CFABC).⁴ The person-years of employment for the interior of British Columbia are used as the BCCFA survey is over weighted with Community Forests from the interior of British Columbia. Therefore, interior of British Columbia from both the province and BCCFA are used in the following comparison.

Table 13 outlines the current employment coefficient for the entire interior region of British Columbia and highlights a total employment coefficient of 0.774 person-year of employment per 1,000 m³ of timber harvested.

Table 13: Total Interior Region, Person-Years of Employment Per 1,000 m³ of Harvest

Interior Region	Forest Sector Category	Coefficient
	Forestry and Logging with Support Activities	0.247
	Wood Manufacturing	0.391
	Paper Manufacturing	0.136
	Total	0.774

Source: BC FLNRORD. (Nd), (update with new date run)

By comparison, Table 14 outlines the person-years of employment per 1,000 m³ of timber harvested from Community Forests in the interior of British Columbia. As illustrated, the coefficient yields 1.182 person-years of employment per 1,000 m³ of timber harvested.

⁴ A person-year employment is a standard unit that considers part-time or seasonal full-time work. An approximately 1,800 hours of work per year represents one person-year.

Table 14: Interior Community Forests, Person-Years of Employment Per 1,000 m³ of Harvest

Interior Region	Forest Sector Category	Coefficient
	Forestry and Logging with Support Activities	0.438
	Wood Manufacturing	0.615
	Paper Manufacturing	0.130
	Total	1.182

Source: BCCFA (2018b).

Appendix D – COMPARISON OF STUMPAGE FEES

D-1 BC Timber Sales:

BC Timber Sales (BCTS) is a government entity that sells standing timber on the open market. The results of timber auctions serve a number of goals of BCTS including supporting the market pricing system for stumpage charged to certain forest tenure holders. As such, BCTS is a 'market logger' in a similar fashion as a community forest, and BCTS incurs the types of costs as does a community forest including administrative overheads, silviculture, road building and so on.

BC Timber Sales (BCTS) reports its financial results on a fiscal year basis. The organization has a number of indirect revenue sources in addition to the stumpage paid for BCTS timber harvested. Registrant fees, trespass charges, business-to-business agreement revenues are examples of indirect revenues, and these revenues are included in gross revenue numbers reported by BCTS. BCTS defines net revenue as "*The remainder of gross revenues less capitalized expenses– the equivalent of profit to a private sector company*". To enable an 'apples to apples' comparison of BCTS and community forest stumpage revenues, in the table below BCTS indirect revenues have been subtracted from gross revenues resulting in an adjustment to net stumpage-only revenues reported by BCTS each fiscal year.

Table 15: BC Timber Sales Total Provincial Net Revenue Per Cubic Metre, 2013 to 2019 (target)

Fiscal Year	Gross Revenue	Indirect Revenue	Adjusted Gross Stumpage	Adjusted Net Stumpage	Volume Harvested	Net Revenue Per m ³ Harvested
	(\$ millions)				(million m ³)	
2013/14	\$233.8	(not reported)	\$233.8	\$77.4	11.0	\$7.04
2014/15	\$253.8	\$24.0	\$229.8	\$67.0	10.4	\$6.44
2015/16	\$304.6	\$29.2	\$275.4	\$104.7	11.8	\$8.87
2016/17	\$336.3	\$24.2	\$312.1	\$134.0	10.7	\$12.52
2017/18 (targets)	\$312.1	\$27.0	\$285.1	\$101.9	11.8	\$8.63
2018/19 (targets)	\$300.0	\$25.0	\$275.0	\$94.1	11.4	\$8.25

Source: BCTS Annual Business Plan Reports for fiscal years 2013/14 – 2016/17 and BCTS Business Plans for fiscal years 2017/18 and 2018/19 (the 2017/18 Annual Business Plan Report has not yet been published).

D-2 Other Crown Tenures (non-BCTS, woodlot licence or community forest agreement tenures)

The current timber pricing policy of the minister applies 'tabular rates', as adjusted from time to time, to timber harvested under community forest agreements. In contrast, the vast majority of timber harvesting in BC is done under forest tenures to which the 'full appraisal' aspects of provincial timber pricing policy apply, such as forest licences and tree farm licences. The global wood product manufacturing sector is highly competitive, as is the market for standing timber in BC. The holders of tenures that are subject to the full appraisal aspects of the market pricing system for stumpage are, therefore, highly motivated to conduct their timber harvesting operations in the most economically efficient way possible.

Due to the aspect of the BCTS mission that supports the integrity of the market pricing system for stumpage, BCTS designs its timber sale cut blocks to be of a scale and composition (in terms of timber species, timber quality, terrain etc.) that is representative of the timber harvests designed by the tenure holders that are subject to the full appraisal aspect of the market pricing system of stumpage. This practice of 'mimicking' the planning, timber harvesting, road construction and silviculture practices etc. of such tenure holders enables BCTS to capture cost data that reflects that of those other tenure holders. The ability to generate such cost data enables BCTS to ensure the integrity of the market pricing system.

The ability of tenure holders, such as forest licence or tree farm licence tenure holders, to achieve the high degree of cost efficiency that they seek is enabled by the average size of such tenures, which often confer allowable annual cuts of hundreds of thousands of cubic metres per year. In contrast, the average allowable annual cut for community forest agreements is approximately 39,000 m³ per year. The small size of community forest agreements precludes the achievement of a level of cost efficiency comparable to the other, larger Crown tenures. This, in turn, constrains the amount of stumpage that a community forest agreement holder can pay in a given timber market condition and remain economically viable. This fact partially explains the difference in average stumpage rates for Crown tenures, such as forest licences and tree farm licences, *versus* community forest agreements.

The differences in tenure stumpage referred to above can be further explained by the implicit and explicit government policy goals that underlie its tenure and timber pricing policy. The *Ministry of Forests and Range Act* section 4 establishes the purposes of the ministry that administers forest policy. Among those purposes, the ministry has a duty to:

- Encourage a vigorous, efficient and world competitive timber processing industry, in British Columbia;
- Assert the financial interest of the government in its forest and range resources in a systematic and equitable manner.

The large-scale industrial forestry conducted under Crown tenures such as forest licences and tree farm licences, and the economic efficiency enabled by those tenures, directly supports government's objective to encourage a vigorous, efficient and world competitive timber processing (wood product manufacturing) industry. Through the larger regulatory and forest policy framework (*Forest Act, Forest and Range Practices Act, etc.*), government strives to set rules and requirements to meet not only the public's goals for forest management, but the private goals, including profit goals, of the owners and shareholders of the timber processing industry.

Table 16 outlines a comparison between Community Forests and Industry goals with regards to stumpage.

Table 16: Comparison of Community Forest and Industry Goals as they Pertain to Stumpage

Explicit Community Forest Program Goals	Generally Understood Timber Processing Industry Primary Goals
Provide long-term opportunities for achieving a range of community objectives, values and priorities. Provide social and economic benefits to BC.	Provide profits to private owners and shareholders. Fulfil fiduciary obligations to private shareholders.
Diversify the use of and benefits derived from the community forest agreement area.	Comply with the uses and regulatory requirements government has set for the licence area.
Undertake community forestry consistent with sound principles of environmental stewardship that reflect a broad spectrum of values.	Undertake the most efficient industrial forestry consistent with sound principles of environmental stewardship that reflect a broad spectrum of values.
Promote community involvement and participation.	Involve communities if required by the regulatory framework.
Promote communication and strengthen relationships between Aboriginal and non-Aboriginal communities and persons.	Promote communication and strengthen relationships between Aboriginal communities and persons and the private tenure holder.
Foster innovation.	Foster innovation in the <u>pursuit of global competitiveness.</u>
Advocate forest worker safety	Advocate forest worker safety.

Overall, the government's explicit goals for the community forest program stand in stark contrast to the generally understood primary goals of the timber processing industry.

From the comparison of goals above it can be seen that the goals of the community forest program are entirely related to increasing the public good that arises from tenure management. The goals of the timber processing industry are almost entirely related to increasing the private good that arises from tenure management. This is not a criticism of the industry's goals, as there are a host of secondary social and economic benefits that arise from the industry's pursuit of its private goals.

Conclusions:

- 1) The province receives direct public benefit from community forests in the form of stumpage revenue;
- 2) By policy, the province has set goals for community forest agreements to create other, sometimes indirect, public benefits in addition to direct stumpage. These other public benefits have social, economic and environmental value to communities and British Columbia;
- 3) The pursuit of community forest program public interest goals properly results in differing levels of direct stumpage payments between community forest agreement holders and the holders of other Crown tenures as they pursue private interests;
- 4) The combined public benefits from community forest agreement from direct stumpage payments and the social, economic and environmental benefits that result from the unique government goals for the program represent the true return to the province from community forest agreements;
- 5) For the reasons above, the difference between the level of direct stumpage payments by community forest agreement holders and the holders of other Crown tenures is an equitable difference that is consistent with the duty of the ministry to 'assert the financial interest of the government in its forest and range resources in a systematic and equitable manner' as required by the *Ministry of Forests and Range Act*.

Appendix E – NOTES ON SOCIAL LICENCE

Community forests are a tangible way to restore the social contract with communities across British Columbia. This comes when there is more local control of resources, and community members see that the benefits of harvesting stay in the community. Most community forests are located in the land surrounding communities, in highly visible areas, and with many overlapping values. Community forests often contain a greater percentage of sensitive areas than the average in the Timber Supply Area. When combined with many of the economic benefits the real potential of community forest management emerges. They can operate in challenging areas, while still meeting cut control, supplying logs to a wide range of users, and creating jobs, revenues for local governments, and other benefits for their communities.

The concept of social licence in community forestry originates with the tenure itself. By design, community forest licences are managed by the community, for the community. This core principle sets them apart in the forest sector. The licences are long-term, area-based forest tenures. Along with First Nations woodlands licences, they are the only tenures in BC that are, in effect, not transferable (i.e. cannot be sold to an entity outside the community). For community forests, the only transfer that can occur is to another legal entity representing the community in question (for example from a community-based Society to a Coop), and only with the approval of the Minister. These conditions lay the foundation for social licence, and they also create strong incentives for investment in the future productivity of the forest.

Beyond the requirement that the CFA holder represents the community, many are going above and beyond tenure requirements to build local relationships and cultivate social licence for their operations. As a result, we see that many community forests have a greater ability to operate in socially constrained areas adjacent to communities. This includes harvesting and conducting fuel treatments in areas that major licensees and BCTS have been challenged to access due to local opposition. When the local community prioritizes the values that will guide forest management, when there is an objective to hire locals for harvesting, road building and trucking, when investment in community engagement is a regular activity, when local recreation is enhanced, when wildfire mitigation activities become a part of regular business, when profits are invested in the community, when business partnerships between Indigenous and non-Indigenous

communities leverage relationship building and trust for additional projects, social licence to operate follows.

Appendix F – COMMUNITY FORESTS INDICATOR SURVEY HIGHLIGHTS

Social Benefits

- Community forests are working to protect residents from the threat of wildfire. Half of the respondents made investments to reduce the threat in the reporting year. They treated an average of 71 hectares and spent \$17,000 of their own funds to reduce wildfire risk. To date, the reporting community forests have collectively treated 3,522 hectares and invested over \$1.8 million for wildfire mitigation. They managed an additional \$6.5 million from outside sources.
- 70% of respondents have collaborated with their local government on Strategic Wildfire Prevention Initiative projects.
- Recreation is a key benefit. Community forests invested an average of \$26,600 in the reporting year. They built or maintained, on average, 18 km of trail. In total, respondents built or maintained 282 km of trail in the reporting period.
- Community forests support education. Sixty-six percent of respondents invested funds and/or time in education, collectively spending \$176,000 and 1,770 hours.

Cultural Benefits

- Fifty-three percent of survey respondents are community forest that are held by First Nations or in partnership with one or more First Nations. Forty percent have First Nations representation on their board of directors.
- Forty-three percent have employment contracts with First Nations, and 38% of community forests engage in cooperative planning with local First Nations.

Environmental Benefits

- Community forests operate in challenging areas around communities. Twenty-nine percent of the land base of the reporting community forests is deemed sensitive.
- Thirty six percent of community forests made investments in forest stewardship, incremental to legal requirements, averaging a \$124,000 investment and treating 625 ha each.

The quantitative information summarized in the Community Forest Indicators 2018 report is augmented with stories and examples from the participating community forests. The first-hand examples, in addition to the data collected, fully illustrate the benefits and the significant impacts community forests have in their local communities.

Background information on the Community Forest Indicators survey questions and methodology as well as an electronic copy of this report can be found on our website at <http://bccfa.ca/category/indicators/>.

Visit the BC Community Forests Association website at www.bccfa.ca to learn more about the BCCFA and community forestry in BC.

Appendix G – DETAILED POPULATION IN RURAL BRITISH COLUMBIA

Table 17: Population Change in Rural British Columbia by Regional District, 1986 to 2017

	1986	1991	1996	2001	2011	2017	Change 1986-2017	Compared to BC
Alberni-Clayoquot	31,354	32,048	32,842	30,741	31,581	30,456	-2.9%	Below
Bulkley-Nechako	38,794	39,400	43,297	41,261	39,905	44,894	15.7%	Below
Cariboo	62,468	62,855	69,835	67,443	63,314	63,364	1.4%	Below
Central Coast	3,273	3,639	4,079	3,899	3,277	3,215	-1.8%	Below
Central Kootenay	50,937	52,342	60,204	57,914	59,297	60,803	19.4%	Below
Columbia-Shuswap*	29,852	30,314	34,681	33,488	33,462	33,367	11.8%	Below
Cowichan Valley	54,411	62,199	73,528	73,925	81,485	85,459	57.1%	Close to BC
East Kootenay*	38,428	36,859	39,659	38,300	37,942	38,383	-0.1%	Below
Fraser-Fort George*	22,456	21,661	24,755	23,466	20,084	19,805	-11.8%	Below
Kitimat-Stikine	40,912	43,249	45,365	43,295	38,066	36,270	-11.3%	Below
Kootenay-Boundary	31,351	31,974	34,066	32,105	31,494	29,205	-6.8%	Below
Mount Waddington	15,508	14,293	15,194	13,667	11,716	11,127	-28.2%	Below
North Okanagan*	35,944	39,176	41,202	40,628	43,477	44,252	23.1%	Below
Northern Rockies		5,184	6,115	5,981	6,054	5,879	na	na
Okanagan-Similkameen*	36,631	40,357	46,496	45,920	48,086	52,226	42.6%	Below
Peace River*	53,908	54,844	58,770	56,119	61,768	62,231	15.4%	Below
Powell River	18,971	19,689	20,693	19,957	20,106	20,014	5.5%	Below
Squamish-Lillooet*	7,782	8,412	9,918	10,305	11,453	12,840	65.0%	Above
Stikine	2,235	2,215	1,447	851	638	642	-71.3%	Below
Sunshine Coast	17,351	21,334	25,745	25,947	28,918	29,390	69.4%	Above
Thompson-Nicola*	37,905	38,306	43,967	42,771	42,980	46,106	21.6%	Below
British Columbia	3,004,074	3,373,399	3,874,276	4,076,881	4,499,139	4,817,160	60.4%	

Source: BC Stats (1998) (2004) (2015) (2018)

Note: Regional Districts noted with a "*" have had the largest municipality removed from their regional district data and include: Okanagan-Similkameen (Penticton); North Okanagan (Vernon); Thompson-Nicola (Kamloops); Peace River (Fort St. John); East Kootenay (Cranbrook); Fraser-Fort George (Prince George); and Columbia-Shuswap (Salmon Arm).