

# **COMMUNITY FORESTS – COMMUNITY BENEFITS:**

## **The Economic Contributions of Community Forests to Rural BC Communities**



***Advancing Rural Development***

## PURPOSE

This report provides the findings of an economic analysis of community forests in BC completed in 2015. The purpose of this analysis was to quantify the cumulative, historical economic contributions of community forests to rural communities in BC.

This economic analysis was commissioned by the [Southern Interior Beetle Action Coalition](#) (SIBAC) with the cooperation and assistance of the [BC Community Forest Association](#) (BCCFA).

SIBAC is a member-based non-profit rural development organization founded by the nine Regional Districts and six Tribal Councils in the Southern Interior, and the CFDC of Central Interior First Nations. The BCCFA is network of over 50 community-based organizations and the unified voice for the interests of all B.C. communities engaged in community forest management as well as those seeking to establish community forests.

While the background work for this report was being completed, the BCCFA was completing the first of their now annual *Community Forest Indicator Reports*. The annual BCCFA Community Forest Indicator reports (<http://bccfa.ca/category/indicators/>) provide extremely useful annual data on community forest accomplishments against 18 economic, social and environmental indicators.

Representing rural local governments and First Nations, SIBAC is a strong proponent of increased rural Community Forest and First Nations Woodland tenures. SIBAC believes that community forests and First Nations Woodland tenures are an important tool to increase the benefits that rural communities and First Nations receive from the use and management of the public forests that surround their communities.

As part of several submissions to the provincial government on rural issues; SIBAC has recommended an expansion of both the number and size of community forest and First Nations forest tenures in BC. SIBAC therefore believed that it would be useful to complete a study that quantified the cumulative, historical economic contributions of community forests to rural BC communities over the past decade.

## COMMUNITY FORESTS IN BRITISH COLUMBIA

The community forest program was launched by the BC Ministry of Forests in 1998. For a number of years several community forests operated on “probationary” licences. In 2005, the province began formally issuing community forest licences and probationary licenses were converted over time. By 2015 there were 51 community forests in the province, up from only eight in 2008.

While their local impact can be very significant, community forests still only hold a very small percentage of the province’s forest tenures. As of 2015, the total allowable annual cut (AAC) in BC was just over 78.9 million cubic metres. Community forests represented approximately 1.9 million cubic metres of this total, or 2.4 per cent of the total AAC.

Community forests in BC typically operate quite close to their respective communities. Due to this proximity, community forests tend to harvest in areas with more timber harvesting constraints (watershed protection, environmental and viewscape issues, etc.) than the rest of the Timber Supply Area (TSA); and thus typically will experience higher than industry average operating costs. Given community forests’ location and community ownership, local citizens often also have very high expectations regarding consultation and involvement in their community forest’s planning, management, and harvesting decisions. All of these factors can contribute to significantly higher planning and operational costs for community forests.

Community forests are meeting these challenges and creating benefits for their communities and the province as whole. As demonstrated by the annual BCCFA Community Forest Indicators reports,

community forests operate in these sensitive areas while meeting their cut control and reliably supplying logs to both major processing facilities and small manufacturers. Community forests are also investing in intensive silviculture, ecosystem restoration, wildfire management as well as recreation and education initiatives in their communities.

## STUDY METHODOLOGY

To complete this study and report, SIBAC commissioned Peak Solutions Ltd based out of Kamloops. Peak Solutions has a long history and significant experience in conducting socio-economic analysis of the forest sector in BC as well as proposed major resource development projects.

For the purposes of this analysis, there were 44 community forests in BC in 2013 that had been operating for at least two years. During late 2014 and 2015, these 44 community forests were contacted to seek their participation in the study. Those agreeing to participate were asked to submit copies of all of their annual Financial Statements since their inception, and to provide additional information through survey responses. This information was then collated, summarized and analyzed for this report.

In the end, 23 community forests agreed to participate in the study, including some of the oldest and largest community forests in the province. As shown in Tables 1 and 2, the community forests participating in the study provided a good representative sample of community forests in BC.

**Table 1: Total Community Forest Tenures and Community forests Participating in Study by Tenure Issue Date**

<i>Year</i>	<i># of Community forests tenures issued in that year</i>	<i># of Community forests from that year agreeing to participate in the study</i>
<b>2005</b>	1	1
<b>2006</b>	1	0
<b>2007</b>	4	3
<b>2008</b>	0	0
<b>2009</b>	10	5
<b>2010</b>	7	4
<b>2011</b>	15	7
<b>2012</b>	4	2
<b>2013</b>	2*	2
<b>TOTALS</b>	<b>44</b>	<b>23</b>

\*Although 5 CF Licenses were issued in 2013, only 2 of these had 2 years of harvesting operations by the end of 2014.

**Table 2: Total Community forests and Participating Community forests, By Size of AAC**

<i>Annual Allowable Cut</i>	<i>All Community forests</i>	<i>Participating in the Study</i>	<i>% Participating</i>
<b>40,000 m3/year or Greater</b>	7	4	57%
<b>Between 20,000 m3 and 39,999 m3/ yr</b>	24	15	54%
<b>Less than 19,999 m3/yr</b>	13	4	23%
<b>TOTALS</b>	<b>44</b>	<b>23</b>	<b>45%</b>

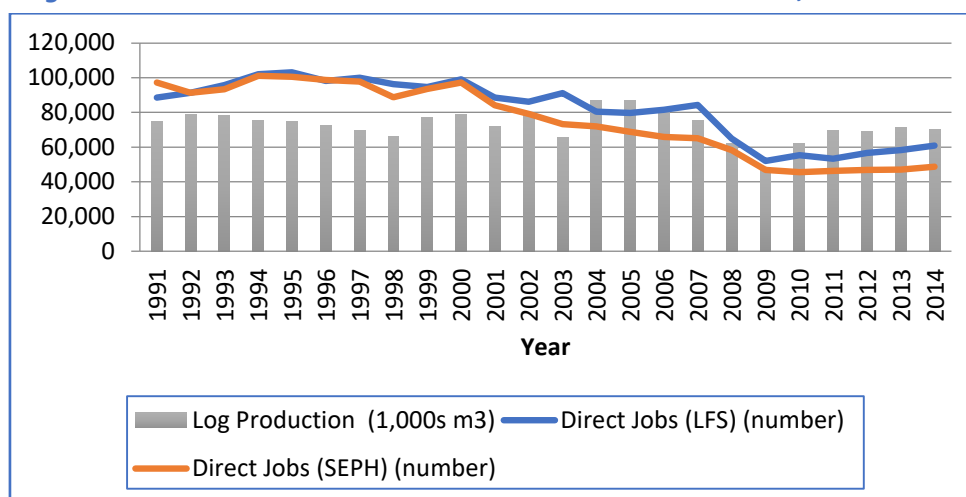
# UNDERSTANDING THE PROVINCIAL FOREST SECTOR CONTEXT

To fully understand the significance of the economic contribution of community forests to rural communities it is important to understand the major forest sector trends and economic climate affecting the rural communities they are located in.

## HARVEST AND FOREST SECTOR EMPLOYMENT TRENDS

While the timber harvest in BC (including harvest from private lands) has typically remained between 62.0 million and 85.0 million m<sup>3</sup> per year from 1991 to 2014, total employment in the forest sector over that same period has declined significantly.

**Figure 1: BC'S Forest Sector Labour Force and Provincial Harvest, 1991 to 2014**

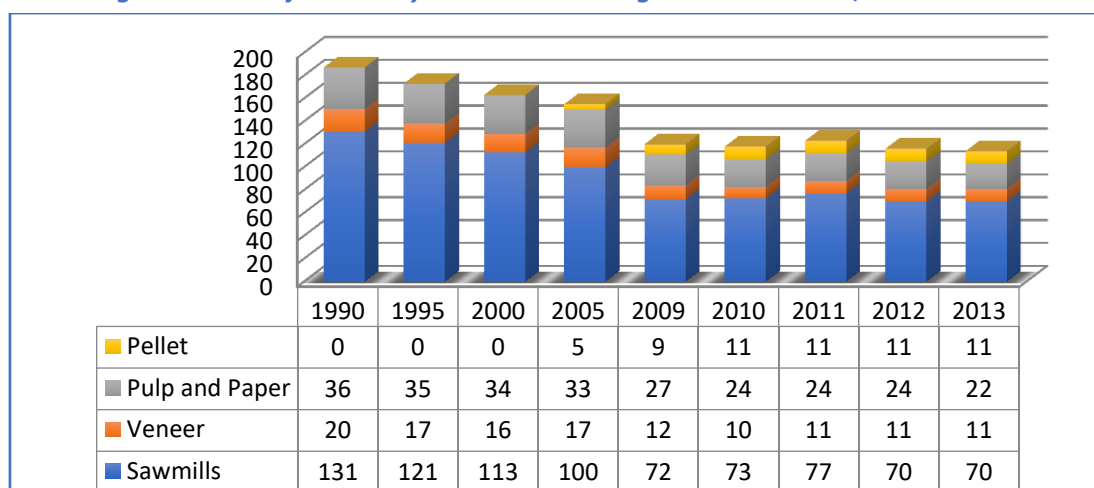


Note that the data source for Figure 1 is Canadian Forest Service (2015). Forest Sector labour force is presented in Figure 1 using Labour Force Survey (LFS) data and Survey of Employment, Payroll and Hours (SEPH).

Employment in BC's forest sector peaked in 1995 with a labour force of 103,000, a year when the timber harvest was 74.6 million cubic metres. Employment held near 100,000 until approximately 2000 before it started to decline. By 2014, the forest sector labour force was approximately 60,000, a 42% decline from 1995, despite only a 5.8% decline in harvest volumes between 1995 and 2014.

Much of this employment decline is the result of technological change in both harvesting and manufacturing and a significant number of sawmill closures in BC as shown in Figure 2.

**Figure 2: BC Major Primary Timber Processing Facilities Counts, 1990 to 2013**



Source: BCFLNRO (2015e).

It is important to note that in the interior of the province, although there were 42% less sawmills in 2013 – the remaining sawmills actually produced 10% more lumber than sawmills in 1990. This is the result of significant levels of investment in upgrades, technological advancements and increased lumber recovery values in the remaining sawmills in the interior. It also reflects the creation of the so-called “supermills”.

This leads to a phenomenon that sees production increasing overall, while jobs decline. A simple way to express this is in terms of the employment coefficient (jobs per 1,000 cubic metres of timber harvested) for a jurisdiction. The forest sector employment coefficient for British Columbia has trended downward, dropping from around 1.3 jobs/1000 cubic metres in 1993 to around 0.8/1000 cubic metres in 2014. It is important to remember that these coefficients include both forestry/logging employment and wood product manufacturing employment.

**Table 3: BC Forest Sector Employment Coefficients – Jobs per 1,000 m<sup>3</sup>**

	1991 to 1993	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
<b>LFS</b>	1.19	1.37	1.38	1.20	1.08	1.06	0.91	0.83	0.80	0.84
<b>SEPH</b>	1.22	1.35	1.32	1.14	0.91	0.88	0.79	0.69	0.67	0.68

Source: Canadian Forest Service (2015). Note: Three year averages have been derived using the Labour Force Survey (LFS) data and Survey of Employment, Payroll and Hours (SEPH).

## FOREST DEPENDENT COMMUNITY TRENDS

This loss in forest sector employment and sawmills has had significant impacts on many of BC's smaller rural communities. As shown by the data in Table 4, many of BC's smaller rural communities have seen significant declines in the size of their labour forces, number of sawmills and industrial property tax revenues.

**Table 4: Key Statistics for some Rural Communities with Community Forest Tenures**

Community	Pop. 2001	Pop. 2014	% Change 2001 to 2014	Total Labour Force 2001	Total Labour Force 2011	% Change in Size of Labour Force 2001- 2011	# of Mills in the TSA 2001	# of Mills in the TSA 2013	% Change in # of Mills in the TSA 2001 to 2013	% Change in Municipal Revenue for Industrial Property Tax 1992-2014
<b>Barriere</b>	3,257	3,125	-4.1%	1,835	1,415	-22.9%	15	7	-53%	n/a
<b>Burns Lake</b>	1,934	1,999	3.4%	1,020	1,080	5.9%	2	2	0%	-82.1%
<b>Clearwater</b>	4,399	3,904	-11.3%	2,275	2,155	-5.3%	15	7	-53%	n/a
<b>Creston</b>	4,800	5,030	4.8%	2,020	2,640	30.7%	4	4	0%	-18.0%
<b>Harrop- Procter</b>	620	650	4.8%	n/a	n/a	-	5	3	-40%	n/a
<b>Houston</b>	3,618	3,142	-13.2%	2,090	1,905	-8.9%	2	2	0%	10.9%
<b>Kalso</b>	1,032	1,008	-2.3%	500	375	-25.0%	5	3	-40%	-100.0%
<b>Logan Lake</b>	2,262	2,070	-8.5%	1,090	900	-17.4%	15	7	-53%	-5.8%
<b>Lumby</b>	1,702	1,773	4.2%	650	1,015	56.2%	21	14	-33%	-74.2%
<b>Mackenzie</b>	5,397	3,538	-34.4%	3,040	2,235	-26.5%	4	3	-25%	-28.2%
<b>McBride</b>	719	585	-18.6%	380	285	-25.0%	7	3	-57%	
<b>Nakusp</b>	1,697	1,528	-10.0%	815	770	-5.5%	7	3	-57%	-44.4%
<b>Port Alberni</b>	17,786	16,683	-6.2%	8,055	7,850	-2.5%	13	5	-61%	-56.0%
<b>Powell River</b>	13,083	13,108	0.2%	5,935	6,580	10.9%	2	2	0%	-69.7%
<b>Smithers</b>	5,428	5,103	-6.0%	3,015	3,195	6.0%	2	1	-50%	-13.9%
<b>Terrace</b>	12,703	11,265	-11.3%	6,425	6,495	1.1%	2	1	-50%	-75.9%
<b>Tumbler Ridge</b>	1,866	2,983	59.9%	1,055	1,860	76.3%	5	2	-60%	-22.6%
<b>Valemount</b>	1,195	1,021	-14.6%	685	540	-21.2%	7	3	-57%	-100.0%
<b>Total</b>	83,498	78,515	-6.0%	40,885	41,295	1.0%	133	72	-46%	-34.6%

Source: BC Stats (2014)(2015); BC MFLNRO (2015e)(2015f); Statistics Canada (2015a)(2015b); BC of Municipal Affairs (1993); BCMCSCD (2015).

This trend has hit smaller, forestry-dependent communities particularly hard. Of the 61 sawmill closures many were in the smaller rural communities of the province. As illustrated in Table 4, almost all of the Timber Supply Areas (TSA) that the eighteen rural communities are located in have seen a reduction in the number of processing facilities between 2001 and 2013. Ten of these communities reside in TSAs that have seen over half of their mills close, including Barriere, Clearwater, Logan Lake, McBride, Nakusp, Port Alberni, Smithers, Terrace, Tumbler Ridge, and Valemount. These closures have often led to population and labour force loss in the communities. As illustrated in Table 4, 12 of the 18 communities with community forests have experienced population loss. Collectively these 18 communities have experienced an overall 6% decline in population at a time that the provincial population has grown by 13.6%.

Looking at the local labour force numbers for the eighteen communities, we see similar challenges. As illustrated, the overall total labour force for the eighteen communities listed in Table 4 managed to expand by only 1% , compared to provincial growth in the total labour force of 15.9% between 2001 to 2011 (Statistics Canada. nd). Many of the rural communities in the province that have had a historically high dependency on forestry have experienced sizeable declines in their local labour forces, with examples including: Barriere (-22.9% decline in local labour force); Mackenzie (-26.5%); McBride (-25.0%); and Valemount (-21.2%).

Historically, the eighteen communities listed in Table 4 have also depended to a large extent on industrial property taxes to fund their municipal operations and capital programs. With the exception of Logan Lake and Tumbler Ridge, the industrial tax base in these rural communities has historically been led by the forest industry. For a number of years, forest sector companies have been seeking lower industrial taxation rates from local governments. As illustrated in Table 4, all of the communities that were incorporated in 1992, except Houston<sup>1</sup>, have experienced a significant decline between 1992 and 2014 in the share of industrial property taxes that contribute to their overall property tax base. Collectively the communities with taxation data experienced a collective decline of almost 35% in the industrial property tax share over the period.

The economic ripple effect of this loss of substantial payroll and industrial tax revenue is especially significant in small, forestry-dependent communities that often lack any other businesses of scale capable of filling the fiscal void. This in turn places tremendous strain on smaller rural municipalities to find alternative tax revenues to provide essential services and maintain infrastructure, while keeping residential taxes at a reasonable level.

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<sup>1</sup> Houston experienced the closure of Houston Forest Products sawmill in May 2014.



# THE ECONOMIC BENEFITS OF COMMUNITY FORESTS FOR RURAL BC COMMUNITIES

Against this backdrop of diminishing local benefits from the traditional forest sector – community forests are playing a critical role in providing significant local benefits from the forests surrounding rural communities.

Of the community forests in BC nearly half are operated by First Nations or by partnerships between First Nations and neighbouring non-indigenous communities. According to the BCCFA, 32% of community forests are located by communities with less than 1,000 in population and 62% are adjacent to rural communities of less than 3,000 people.

As shown by the data in Table 5, the rural economic contributions of community forests have grown steadily with the expansion of the program.

**Table 5: Consolidated Information from Community forests' Financial Statements**

Year	# of Community forests Financial Statements Available for that year	Combined Actual Harvest (m <sup>3</sup> )	Total Expenses	Total Salaries & Consulting Fees Paid for Community Forest Management	Total Other Consulting Fees	Engineering , road layout & road related expenses <sup>1</sup>	Silviculture Expenses <sup>1</sup>	Harvesting, Hauling Related Expenses <sup>1</sup>	Total Dividends and Donations Paid
2013	23	1,005,944	\$46,817,968	\$3,343,172	\$1,191,172	\$1,843,943	\$3,221,433	\$27,198,634	\$4,997,732
2012	22	1,112,726	\$43,694,064	\$3,168,056	\$932,788	\$1,681,143	\$3,828,537	\$24,338,019	\$1,842,807
2011	22	921,040	\$31,335,990	\$2,736,278	\$703,954	\$862,163	\$2,970,269	\$18,110,793	\$1,205,552
2010	22	768,928	\$30,089,432	\$2,129,959	\$851,890	\$329,966	\$2,422,431	\$19,061,109	\$1,196,515
2009	20	676,618	\$26,611,156	\$1,904,355	\$695,869	\$532,149	\$1,806,420	\$14,061,461	\$1,012,876
2008	18	854,462	\$36,441,732	\$1,512,506	\$843,239	\$546,709	\$2,377,828	\$21,011,248	\$2,233,128
2007	12	917,701	\$28,714,930	\$1,103,071	\$415,881	\$817,501	\$1,974,279	\$15,292,580	\$2,249,820
2006	11	817,935	\$35,723,094	\$1,098,078	\$221,513	\$894,970	\$2,173,777	\$25,065,725	\$2,046,007
2005	9	413,662	\$8,256,725	\$932,266	\$306,595	\$687,058	\$237,094	\$3,720,022	\$342,533
2004	7	167,157	\$4,376,77	\$508,396	\$137,715	\$191,526	\$105,948	\$2,130,817	\$203,281
2003	7	95,826	\$2,299,805	\$119,688	\$49,852	\$138,107	\$69,092	\$1,155,089	\$9,216
<b>TOTAL</b>		<b>7,751,999</b>	<b>\$294,361,678</b>	<b>\$18,555,824</b>	<b>\$6,351,183</b>	<b>\$8,525,234</b>	<b>\$21,187,107</b>	<b>\$171,145,497</b>	<b>\$17,339,467</b>

**Note 1:** For Engineering road layout and road related expenses; silviculture expenses; and harvesting, hauling related expenses, values are based on data for 21 Community forests with 2 Community forests Financial Statements not providing breakouts of these expenditures.

## PROVIDING LOCAL PAYROLL & CONTRACTING OPPORTUNITIES

Community forests across the province have a track record of using local staff and contractors in their operations. In smaller rural forest dependent communities, this payroll and contracting expenditures can be a very important and significant contribution to the local economy.

For example, as shown in Figure 3, the 23 reporting community forests paid out over \$4.5 million in payroll and consulting fees for community forest management in 2013. Over the 11 year period from 2003 to 2013 these 23 community forests have collectively paid out nearly \$25 million in payroll and consulting fees – the vast majority of which would have remained in the local economy.

**Figure 3: Community forests Payroll & Consulting Expenses**

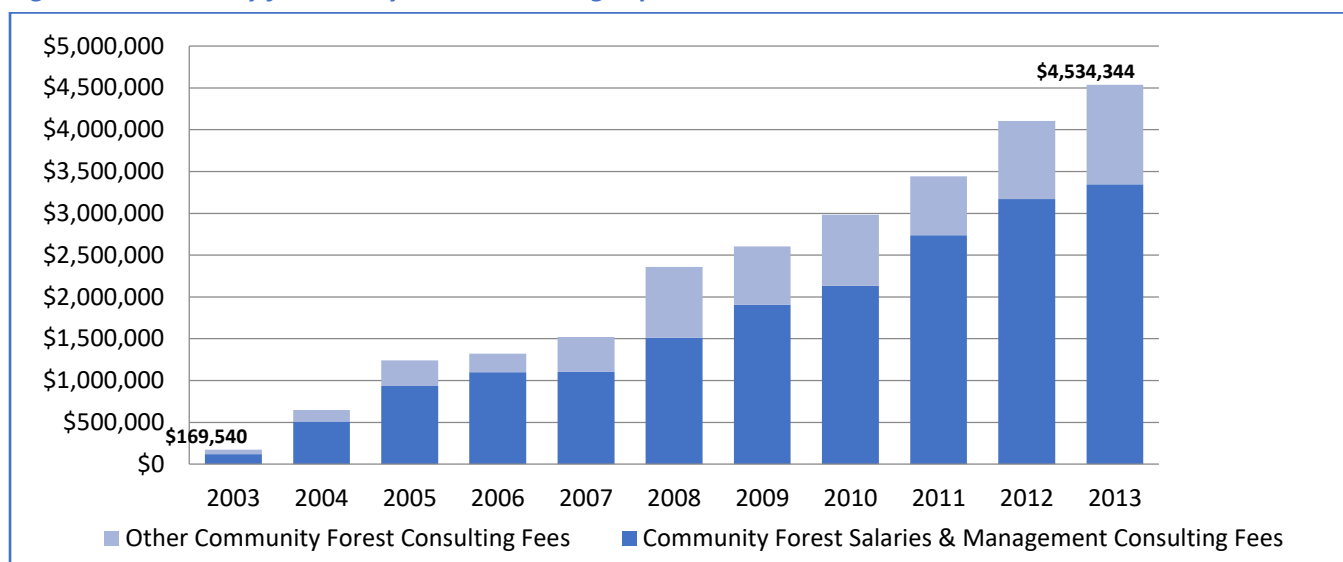
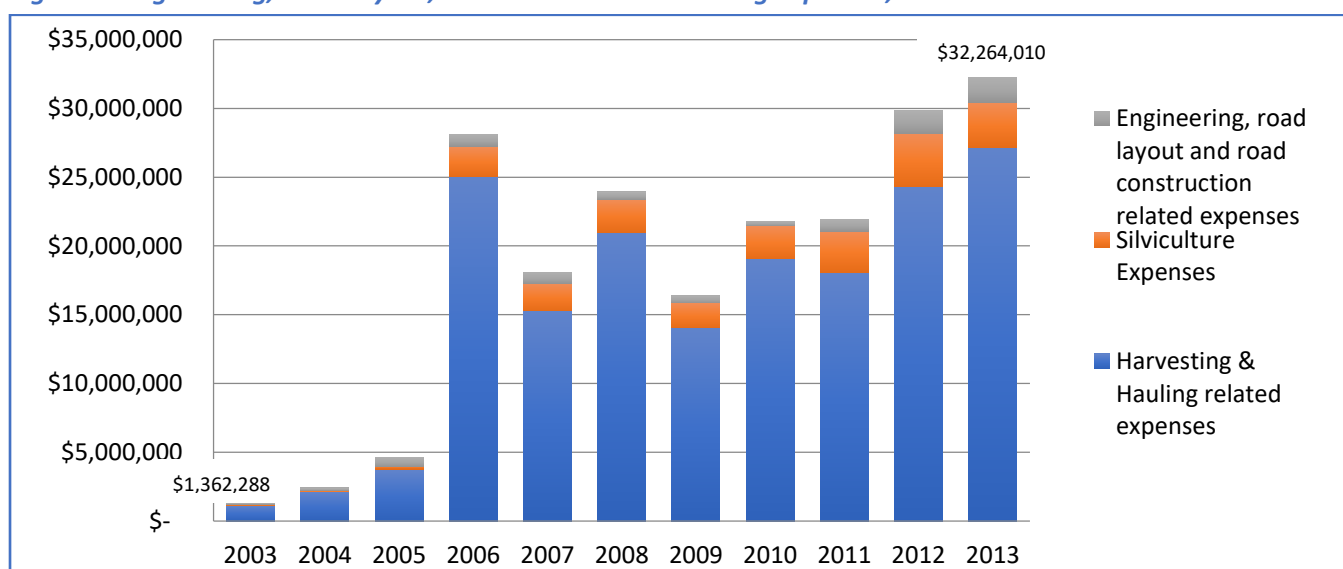


Figure 4 (below) displays the annual reported total expenses for engineering, road building, harvesting, hauling and silviculture expenses for 21 of the 23 participating community forests. In 2013, this represented just under \$32.3 million in expenditures. Between 2003 and 2013 the total expenditures in these categories exceeded \$200 million for the 23 participating community forests. Again, given the significant losses of employment in the forest sector in general, in smaller rural communities these contracting expenditures create badly needed local jobs and income.

**Figure 4: Engineering, Road layout, Silviculture and Harvesting Expenses, 2003-2013**



## EMPLOYMENT CREATION

Based on harvest volumes for the 23 community forests that provided financial and harvest activity to SIBAC, the standardized method for calculating direct employment (full-time, full-year equivalent (FTEs)), indirect and induced employment, and total employment (direct plus indirect and induced) have been calculated.

The amount of employment created by community forests each year will vary depending on a number of factors including the total amount of timber harvested each year. As illustrated in Table 5, the reporting community forests created almost 810 direct FTEs in 2013. In addition, the indirect and induced activities



created an additional 1,051 FTEs in 2013. The indirect and induced employment includes not only employment within the rural communities with community forests, but throughout the province. Collectively, the total employment (direct, indirect and induced) in 2013 reached of 1,860 FTEs on a harvest of just over 1 million cubic metres.

**Table 6: Participating Community forests Employment Impacts, 2010 to 2013.**

	2010	2011	2012	2013
Forestry and logging industry	93.2	111.7	135.2	121.9
Pulp and paper product manufacturing industry	119.8	143.6	173.9	156.8
Support activities for forestry industry	92.0	110.2	133.4	120.3
Wood product manufacturing industry	313.3	375.5	454.6	409.8
<b>Total Direct Employment</b>	<b>618.2</b>	<b>741.1</b>	<b>897.0</b>	<b>808.8</b>
<b>Total Indirect and Induced Employment</b>	<b>803.7</b>	<b>963.4</b>	<b>1,166.2</b>	<b>1,051.4</b>
<b>Total</b>	<b>1,421.9</b>	<b>1,704.5</b>	<b>2,063.2</b>	<b>1,860.2</b>
<b>Total Harvest (cubic metres)</b>	<b>768,928</b>	<b>921,726</b>	<b>1,115,726</b>	<b>1,005,944</b>

If one was to apply the same forest sector employment coefficients to the total Annual Allowable Cut volume of all community forests in the province in 2013 (1,794,600 m<sup>3</sup>) they would have created just under 1,445 FTEs of direct employment, and a further 1,875 FTEs of indirect and induced employment.

The employment created by community forests are especially vital to communities that have lost significant forest sector employment between 2001 and 2011 like Valemount (105 jobs lost – 84% decline); McBride (95 jobs lost – 86% decline); Clearwater (515 jobs lost – 68% decline) and Barriere (315 jobs lost – 67% decline).

The employment created by the community forest activity, also creates considerable additional disposable income in rural communities. Overall, it is estimated that the direct employment in 2013 of 808 FTEs would create approximately \$44 million in direct employment income and a further \$41 million in indirect employment income spinoffs.

## REINVESTING PROFITS BACK INTO THEIR RURAL COMMUNITIES

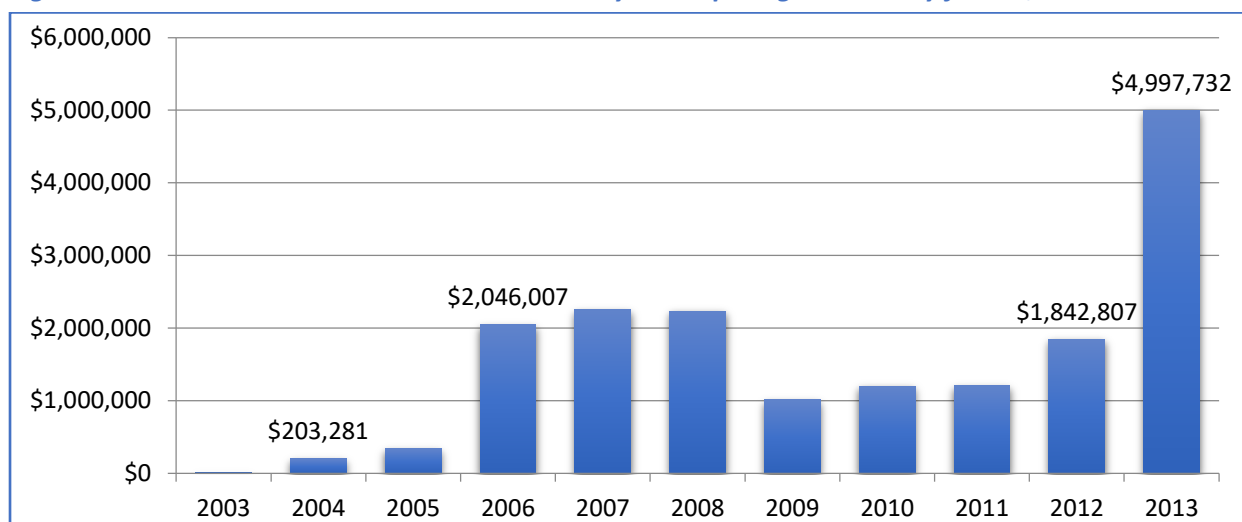
Like all forest sector businesses, community forests revenues and expenditures will vary considerably year by year for a wide variety of factors. For some community forests it will take years of operations to pay back start-up costs and to build-up the necessary operating reserves required to meet future obligations and the inevitable difficult market years.

As noted earlier, the vast majority of operating expenditures made by community forests are expended in the local region with a very significant local economic impact. Over and above this, community forests have also provided very significant dividends and donations from operating profits to their community owners and members.

As shown below in Figure 5, in 2013 alone the total dividends and donations paid by the 23 participating community forests reached almost \$5 million. Since 2003, just the 23 community forests participating in this study had collectively invested a total of \$17.3 million of community forests' profits back into their communities to the end of 2013.

This trend of reinvesting profits has continued. According to the BCCFA, total dividends and donations from community forests participating in the annual *CF Indicators Report* in 2015 again exceeded \$5.2 million.

**Figure 5: Annual Dividends and Donations Paid by Participating Community forests, 2003-2013**



For small forest dependent rural communities these dividends and donations from a Community Forest are extremely important. These small communities often have very limited financial resources from a small residential and business tax base. The dividends and donations from their Community forests are often also vitally important in providing the community-based funding component that is typically required in order to access external funding programs. In other situations, simply having a CF organization can add significant rural community capacity to be able to take advantage of other externally funded opportunities such as training programs.

## SUMMARY

As demonstrated by the figures in this report and others, community forests in BC are playing a very significant and critical role in the economies of BC's smaller rural communities.

Against a pervasive trend of sawmill closures, forest sector job loss and reduced municipal industrial tax revenues; community forests offer rural communities and First Nations an opportunity to directly benefit from the forest sector operations surrounding their communities.

As the BCCFA has documented, community forests are also an important source of fibre for small value-added wood manufacturers in rural BC. This is also an important role since many value-added operators continue to indicate that access to fibre remains a major issue for them.

As noted earlier, community forests are operating in some of the most socially and environmentally sensitive forest landscapes - often immediately surrounding communities. As the past decade has demonstrated, with continuing climate change it will be important to continually manage fire risks in the forest/community interface areas. As several community forests have demonstrated this is a role community forests are very well suited for.

Given the economic implications of corporate consolidation in BC's forest sector, if BC's smaller forest-dependent communities are to remain economically viable they will need to be able to create jobs and develop alternative forms of revenue. SIBAC believes that creating more and larger community forests for rural communities and First Nations is one of the most important rural development policies and actions the provincial government could undertake.