

SMALL-SCALE FORESTRY IN BRITISH COLUMBIA: IS THERE A NICHE?

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ABSTRACT

Small-scale forestry has a number of distinct features. Organizationally, it is decentralized and grass-roots based, which permits extensive local involvement in and close-to-home forest management, but the downside of this is the lack of a hierarchical structure that characterizes industrial forestry. Financially, it requires less up-front capital investment, and often can satisfy the needs of forest operations at the community level. In terms of rural economy, small-scale forestry offers the opportunity to capture a greater share of forest wealth at the local level.

Small-scale forestry brings with it certain challenges, which include: (i) the need to balance private property rights and public values, (ii) ecological issues associated with the fragmentation of forest estates and landscapes, (iii) disadvantages arising from the small scale of operations, (iv) high costs of transporting products over long distances from communities on forest edges to the marketplace, and (v) inadequate social, economic and political influence of small-scale forestry groups.

In British Columbia (BC), more than 20,000 landowners have private holdings in excess of 20 ha and over 9,000 people work on the province's private forestlands. This paper examines the pros and cons of managing forests on a small scale, with an overview of recent government initiatives and programs aimed at promoting small-scale forest practices and businesses.

INTRODUCTION

Also known as rural forestry, non-industrial forest enterprises, or farm forestry, small-scale forestry has pros and cons. On the advantages side, small-scale forestry is highly flexible as it does not require much up-front capital investment and often can be practiced in a variety of ways to satisfy the diverse needs of forest operations at the individual and community levels. Small-scale forestry is characterized by the following features: grassroots, extensive local involvement in close to home forest management, and local control of forest stewardship. Small-scale forest practices have great potential to produce a wide range of forest products, create sustainable livelihoods, contribute to a stable and diversified local economy, and generate environmentally friendly landscape values. Organizationally, small-scale forestry is decentralized and lacks the hierarchical structure that industrial forestry usually has. Rural forestry is often advocated as a means of effectively meeting local needs and demands on forests.

The disadvantages of small-scale forestry include: fragmentation of forest estates and landscapes, difficulties in securing necessary political and technical support and financial resources, and the problems that smaller scale operators often encounter in their efforts to achieve economic efficiency. This paper examines

Canada's experience with small-scale forestry, particularly in BC. The next section provides a profile of BC's small-scale forestry practices that encompass woodlot forestry, community forests, and independent loggers and forestry contractors. Then we describe the main initiatives and programs undertaken by the federal and provincial governments. The paper ends with a discussion of the challenges BC's small-scale forestry operators face.

A PROFILE OF BRITISH COLUMBIA'S SMALL-SCALE FORESTRY

Canada is a forest nation, and BC is Canada's most important forest province. In BC more than 20,000 landowners have private holdings in excess of 20 ha, and many of them are also engaged in farming or ranching. Furthermore, over 9,000 people work on the province's private forestlands. Small-scale forestry also plays a significant role in BC's public forests. It mainly takes the forms of woodlot forestry, independent logging and silvicultural contracting, and community forestry. Stewardship agreements are part of the new forest regulations enacted in January 2004.

Woodlot Forestry

Originally created in 1948 to allow farmers to obtain small areas of Crown land to manage as farm woodlots, the current form of the Woodlot Licence came into being in 1979. A woodlot licence is a legal tenure agreement between the provincial Ministry of Forests and a licensee that grants the latter the right to manage an area of publicly owned forests for timber production and, more recently, ecosystem sustainability within a well-defined geographical area in return for usually including a portion of privately owned land. Varying in size, woodlots in BC can be managed by individuals, groups of individuals, First Nations or public institutions. In most cases, the licence area includes private forestland, usually adjacent to or near the Crown lands portion. The maximum Crown land portion of a woodlot licence is 400 ha on the Coast and 600 ha in the Interior. Increasing consideration has been given to woodlot forestry as an alternative approach to managing some of BC's public forestlands. Currently, there are 748 woodlot licences in the province, and the allowable annual cut (AAC) from woodlot licences account for less than 1.5% of BC's total AAC (for detailed information, see the Office of the Auditor General of British Columbia's 1999/2000 Report 4 – Managing the Woodlot Licence Program). However, timber harvest of woodlot licences can vary from one year to another because licensees have the option of adjusting their cut level in order to take advantage of market conditions. As Table 1 shows, woodlot licences, which concentrate in the Interior, accounted for 2.3% of the timber harvested on BC's Crown land.

The most important development in BC's woodlot forestry in recent years has been the establishment of a network of local woodlot associations. Founded in 1988, the Federation of British Columbia Woodlot Associations (FBCWA) represents 16 woodlot associations, individual woodlot licensees, and small private woodland owners throughout the province. FBCWA's mission is to promote the economic and social interests of small-scale forest management in the province. It provides a forum for local woodlot associations to share their experiences in various aspects of forest

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Table 1.—BC's Timber Harvest (m^3) in 2001/2002, by Region and by Land Status.

	Coast	Interior	Province
Crown land			
Forest Licence	5,407	30,501	35,908
Tree Farm Licence (TFL)	6,942	3,846	10,788
Timber Licence within TFL	1,228	4	1,232
Timber Licence outside TFL	371	76	447
Woodlot Licence	100	1,304	1,404
Other	154	3,343	3,498
Subtotal	14,202	39,074	53,276
SBFEP Section 20	619	3,557	4,176
SBFEP Section 21	410	2,095	2,505
SBFEP Other	239	1,662	1,901
Subtotal	1,269	7,313	8,581
TOTAL CROWN LAND	15,470	46,387	61,857
Private land			
Within TFL	592	1	593
Outside TFL	5,145	2,116	7,261
TOTAL PRIVATE LAND	5,737	2,117	7,854
Federal land and First Nations Reserve	41	9	50
TOTAL	21,249	48,512	69,762

Source: BC Ministry of Forests Annual Report 2001/2002, Table C-2.

management. For instance, by participating in provincial stumpage appraisal advisory committees and conducting independent cost data surveys, the FBCWA seeks to ensure that stumpage rates applied to Crown timber harvested on woodlot licences reflect the circumstances of small-scale forest operations. In 1997, the FBCWA facilitated the establishment of the Woodlot Product Development Council. This council now administers a fund made of a C\$0.25 per cubic metre levy on Crown timber harvested on woodlot licences and undertakes research, information dissemination and market development initiatives for the benefit of woodlot licensees. Also, the FBCWA played an instrumental role in establishing the Canadian Federation of Woodlot Owners (CFWO) in 1989. The CFWO has been highly active in proposing changes to federal tax legislation to benefit private woodlot owners across the country.

Specifically, like other woodlot associations in BC, the Courtenay based North Island Woodlot Association operates on the principle that small-scale forestry is viable and desirable. Since 1986, its members have benefited from a series of workshops, demonstrations and extension services offered by the association. Through these activities, the association shows its members and the general public that small-sized forest tracts, when managed properly, can support sustainable wood production and wise use of forest resources while still retaining their ecological and aesthetic integrity. By joining an association, members will have a strong political voice to deal with issues such as taxation and government forestry regulations. With urban and suburban sprawl encroaching on the forests and green spaces of northern Vancouver Island, the association often acts as a promoter of sustainable forestry in the suburban-forest interface. By taking a balanced approach, the association seeks to provide an alternative between large industrial activity and total preservation of forestlands and to serve as a promoter of sustainable forestry in the suburban-forest interface (Natural Resources Canada 2001).

Independent Loggers and Forestry Contractors

The independent log-harvesting and hauling sector is a significant contributor to the BC economy, and independent logging contractors are tightly connected to smaller BC communities. Some 83% of the timber harvested in BC is by contract logging. Contract harvesting plays a critical role in generating both jobs and earnings in the BC forest sector. PriceWaterhouseCoopers survey data shows that the contractors' share of logging employment increased to 69% in 1997 from 65% in 1991. The relationship between harvesting contractors and small communities is extremely close. For instance, in the Cariboo Forest Region of the Interior, 46% of contractors are based in communities smaller than 3,000; it is 31% in the Prince George Forest Region, 63% in the Kamloops region, and 55% in the Prince Rupert region. The high concentration of harvesting contractors in forest-dependent small communities means that harvesting contractors are instrumental in conferring economic benefits to rural development (Central Interior Logging Association Weekly Facts/Fax, Issue #5, Nov. 16, 1998).

However, independent forestry contractors face some serious challenges. Due to lack of negotiating power, a small-scale contractor usually is highly dependent on a larger downstream firm. For instance, independent logging companies and truckers are dependent on the whims of larger tenure-holding companies, and this becomes a bigger problem when it comes to setting rates and determining the specific amounts and location of the timber that the smaller operators can access. Smaller operators are not able to keep up with the bonus bids offered by larger contracting companies and licensees, which are tied in one way or another to the integrated forest companies. Very often, small businesses do not have the means and expertise to manage information properly and efficiently. In the case of Green Loggers Holdings Ltd., it faced a logistical nightmare tracking log inventory in its log yard. For instance, it did not have the time and financial resources to adopt a bar-code system on log shipment (Stevenson 2000).

The new Forest and Range Act (FRPA), effective January 31, 2004, intends to simplify planning and stewardship on Crown lands, including woodlots. Forest and woodlot licensees will have to submit forest stewardship plans and woodlot licence plans to the government for approval, in place of the previously required Forest Development Plans. In these plans, licensees state how their results or strategies will be consistent with government objectives for the stewardship of forest values. These results must be measurable and enforceable, contributing to effective compliance and enforcement. The plans include maps and details of reforestation plans. They are available for public comment and must be approved by the government before work begins.

The number of small-scale operators is expected to increase as the government proceeds with its forestry revitalization plan. Approximately, 20% of the volume from major tenure arrangements is being reassigned, with 10% of this volume intended for communities and First Nations. Since September 2002, approximately five million m^3 has been assigned to First Nations.

Community Forests

Since the late 1990s, community forests seem to be gaining more and more prominence in the public eye. The essence of community forests is to allow communities to gain access to publicly owned forestland and participate in decision making concerning various forest management issues in their local areas. Community forests are managed by local governments, community groups, First Nations or specially formed community corporations. Revenues are used for local goals, including employment, forest-

related education and skills training. These forests always include Crown land, and may involve private or band-reserve land. BC has several community forest pilots, ranging from 418 to 54,000 ha. Some other communities hold tenures like woodlots, tree farm licences and non-replaceable forest licences. Together, woodlots and community forest agreements account for about two per cent of the province's annual harvest. As part of its plan to revitalize the forest economy, the province will double the timber allocated to community-based forest tenures like woodlot licences and community forest pilot agreements (BC Ministry of Forests 2003). Table 2 summarizes the latest development regarding BC's Community Forest Pilot Agreements.

GOVERNMENT INITIATIVES AND PROGRAMS

First Nations Forestry Program

The Pacific Forestry Centre of the Canadian Forest Service has played an important role in promoting small-scale forestry through the First Nations Forestry Program (FNNP). During the period 1996/97 to 2003/04, a total of 344 projects were funded with over C\$6.7 million. Located in communities throughout the province, project activities involved business planning, skill development, training, joint ventures and other forest related partnerships. This initiative built on a 10-year program (1985/86 – 1995/96) that was based on improving forest management on reserve lands. The FNNP is the result of the recognition that most communities do not have sufficient lands on their reserves to provide economically

sustainable, forest-based opportunities. As a result, the FNNP has allowed First Nations to both continue with on-reserve activities as well as expand into off-reserve tenure applications, business opportunities, joint-venture/co-management developments and general forestry capacity building.

Private Forestlands Rehabilitation Program of the Mountain Pine Beetle Initiative

The Mountain Pine Beetle Initiative (MPBI), led by the Canadian Forest Service's Pacific Forestry Centre, is a five year C\$40 million federal government program to address the mountain pine beetle epidemic in BC. One of the components of the MPBI is Private Forestlands Rehabilitation Program (PFRP), which is designed to assist private landowners in preventing the beetle and rehabilitating infested forestlands. Owners of non-industrial forestland located in the area of mountain pine beetle impact, with a holding anywhere between 10 and 2,000 contiguous ha, are eligible for funding support. There are four beetle management strategies in BC, namely, suppression, holding, salvage, and monitoring. Eligible activities under the PFRP include: (i) management strategy development, (ii) surveys and prescriptions, (iii) direct and indirect control such as sanitation harvesting, salvage harvesting, fall and burn, and debarking, (iv) baiting, (v) site restoration and rehabilitation, and so on. The PFRP is implemented on a cost-shared basis, with landowners contributing a minimum of 20% of total project costs. Applications are reviewed and approved before a Contribution Agreement (CA) is drawn up by the Canadian Forest Service and signed by the parties concerned. This CA is a legal document that specifies the terms, conditions, budget, and standards for the activities that will be funded under the PFRP. Canadian Forest Service field staff or forestry consultants under contract to the PFRP will conduct on-site field inspections to ensure that the work is in accordance with relevant regulations of the PFRP and the CA (Natural Resources Canada 2003).

Table 2.—BC's Community Forest Pilot Agreements as of September 30, 2003^a.

Community Forest Pilot Agreement	Date management plan adopted	Area (ha)	AAC (m ³)	Total cut (m ³) ^b
Bamfield	4/28/03	418	1,000	0
Burns Lake	9/04/00	23,325	54,026	101,832
Cheslatta First Nation	12/09/02	39,129	210,000	0
District of Fort St. James	10/31/01	3,582	8,290	0
Esketeme First Nation	8/08/01	25,000	17,000	22,147
Harrop-Proctor Watershed	2/14/01	10,860	2,603	4,352
Likely Community	3/31/03	14,000	12,231	N/A
Village of McBride	2/14/03	60,860	50,000	N/A
Subtotals		178,174	355,150	128,331
CFPA offered	Offer date			
Island Community Stability	7/06/99	24,000	50,000	
North Island Woodlot	7/05/99	715	2,090	
Nuxalk First Nation	10/24/00	46,000	20,000	
Subtotals		70,715	72,090	
Total		248,889	427,240	128,331

^a Source: BC Ministry of Forests, Resource Tenures and Engineering Branch.

^b For the years 2001 and 2002.

Small Business Forest Enterprise Program

The BC Ministry of Forests' Small Business Forest Enterprise Program (SBFEP) is one of the most important programs that the provincial government has undertaken to advance small-scale forestry. The SBFEP has changed its bid criteria to encourage the maintenance and expansion of local jobs and the production of value-added products (Anon. 1997).

Under government initiatives through the small business harvesting program, the wood supply to small value-added operators has increased considerably. Up until 2002, private forest landowners in BC are able to receive training and extension services provided by an initiative known as the Small Woodlands Program (SWP) of BC. The SWP was an initiative that aimed at assisting landowners to acquire the necessary skills, knowledge, and financial resources for implementing sustainable forest practices. The program had three specific objectives: (i) increasing wood supply from non-industrial private forestland, First Nations reserves, and agricultural leases, (ii) creating forest-related jobs, and (iii) stimulating traditional sources of rural incomes. However, the program has been terminated, due to a lack of funding.

DISCUSSION AND CONCLUSIONS

Small-scale forestry has emerged in BC amidst significant changes in the province's forest sector and overall economic structure at large. Barnes, Hayter and

Hay (1999) divide the past five decades into two periods, namely, 1950-1980 as a 'Golden Age' for post-war BC forestry, and post-1980 as an age of flexible production. They used the term 'Fordism' to categorize the first era, and 'Post-Fordism' for the second era. Unlike the first age which was characterized by managerialism, the second age is characterized by a local economic strategy of entrepreneurialism.

In terms of forest sector restructuring, the most important determinants include: labour-saving technological change, increased global competitiveness, trade restrictions, consumer boycotts, lower wood-product prices, and so on. The major impact of industry restructuring is on employment and the geographical distribution of the jobs. According to the most recent profile that Bentzen and Hannes (2003) compiled for BC, the rural parts of the province are still highly dependent on primary industries to provide employment. Forestry is, essentially, a rural undertaking and, as a result, it is rural areas that tend to be affected more strongly. Small business initiatives have been one of the responses taken by forest-dependent communities that were affected by the industry restructuring (Barnes, Hayter and Hay 1999). Community forests and woodlots help maintain the fabric of society. Through various activities for renewing and restoring the forest, local communities find effective ways of stabilizing investment and jobs locally. In other words, managing forests in a sustainable manner is essential to the viability of rural life and culture and sustaining rural communities.

In an effort to integrate social, economic and environmental values into forest management, small-scale forestry faces certain challenges. Small-scale forestry is by no means an end in itself. The discrepancy between the desirability and viability of small-scale forestry must be addressed. In addition to the problems associated with scale and size, small-scale forestry's challenges evolve around distances; for instance, the distances from the marketplace and high transportation costs pose barriers from an economic perspective. The provision of information is also an issue. BC's experience suggests that it is important for small-scale forestry operators to build an effective information sharing network and extension infrastructure that help provide needed advisory and technical services and training. Assistance from Woodlot Associations and other forms of cooperatives can help address these issues.

In recent years, in some parts of the world small-scale forestry has been gaining momentum, and there are signs suggesting that industrial forestry and community based, small-scale forestry can co-exist. For example, on private commercial forestland owned by Abitibi-Consolidated in Quebec, the Bas St. Lawrence Model Forest is experimenting with tenant farming. In many cases, small-scale, community-centred forest management activity can provide a balance and complement to global-based corporate model that accounts for a large percentage of the world's timber and forest products production. Given its many advantages, small-scale forestry has a unique role to play in providing a variety of products including non-timber forest products. For instance, non-timber forest products contribute an estimated \$280 million each year to the BC economy. When well managed, small-scale forestry enables a sound integration of forestry with an array of other values.

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