

Looking Beyond: Can the BC Community Forest Program Be Improved?

FRST 497

4/11/2011
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Abstract

The reform of tenure system and establishment of the British Columbia community forest program created new opportunities for communities around the province and seems to be a story of success. In this paper, a comparative study is done between the community forest model in British Columbia and four other jurisdictions (Ontario, Quebec, Mexico and Cameroon). Initially, the evolution and characteristics of community forest in B.C are described, with focus on the regulations that govern the creation and functioning of a Community Forest Agreement. Subsequently, each of other models are described, and compared with the B.C. model. Finally, in the discussion, some constraints, issues and opportunities for improvement of the B.C. model are identified and put forward for examination.

Keywords: community forest, community forestry, British Columbia, Ontario, Quebec, Mexico, Cameroon, comparison, improvement.

Introduction

In the last three decades, community forest management has been seen as a potential approach to resource management that meet the three requirements of sustainable forest management (SFM): economic development, social progress and environmental protection. Around the world community forests are being increasingly used, and a large number of countries have already implemented community forest programs. Internationally, three main factors have been identified as global drives to the creation of community forests: aboriginal drive, ecological drive and a worldwide movement towards more local governments (Larson et al., 2010). This movement is also backed by an increased number of researchers, which illustrate the advantages of community forests when compared with large-scale, industrial forestry. Duinker (1991) argues that community forests can result in an increased public involvement in resources decision-making and meaningful community education, awareness, and satisfaction. Luckert (1999) concludes that the objectives of communities are closer to sustainability than the objectives of large industrial firms.

In British Columbia, where the SFM represents the core of the management of renewable resources, the government developed the regulatory framework for community forestry in 1998. After 13 years, there are 23 community forests in the province and a significant number of other applicants. With aspiration for continuous improvement, this paper compares the B.C. community forest program with programs in other jurisdictions: Canada (Ontario and Quebec) and overseas (Cameroon and Mexico).

Background, objectives and methods

Defining community forest

“Community forestry” represents a term that can include many elements and have many meanings. Duinker (1991) defines community forestry as “a tree-dominated ecosystem managed by the community and providing local income and other values and benefits for the community”. The Ministry of Forests, Mines and Lands (former MoFR) describes community forestry as “any forestry operation managed by a local government, community group, or First Nation for the benefit of the entire community” (British Columbia Ministry of Forests, Mines and Lands, 2011). Broadly speaking, and for the use of this paper, any definition of a community forest is valid if it includes the aspects of community management and sharing of benefits within the community. For the purpose of this paper, the types and different definitions of a community are not going to be discussed.

Study objectives and methods

The objectives of this study are to identify some of the constraints, issues or unexploited opportunities that B.C. communities might have when practising forest management. This is done by assessing the characteristics of community forests in British Columbia and their evolution and comparing them with other jurisdictions outside of the province.

The present study is based on secondary information obtained from different sources, like journal articles, books, conference descriptions, government reports, former dissertations and discussions with people working in this field. In addition, supplementary information about community forestry was collected from internet sources. All the above were reviewed with the intention of gaining an understanding of the present issues and facts about community forests. Despite having collected significant information about this topic, the availability of documents on some cases was limited.

The success of community forestry in BC was assessed using a series of measures to all of the cases discussed. Based on previous studies (Pagdee , Kim, & Daugherty, 2006), the measures chosen are:

- A - ecological sustainability (e.g. improve forest condition, address environmental degradation)
- B - equity (e.g. equitable sharing of benefits, entitlement, responsibility)
- C - efficiency (e.g. improve local living standard, resolve mismanagement)

Findings

Community forests in British Columbia

History of Community forests in British Columbia

For many decades, the primary scopes of forestry in British Columbia were the harvest of the old growth forests and to provide a continuous supply of wood for the economic development. In the last century different commissions started to review the provincial forest management and make several recommendations (Clogg, 1997)(Ambus, Davis-Case, & Tyler, 2007). The Pearse Royal Commission highlighted in 1976 several issues connected to forest licences and industry concentration (Pearse, 1992). In the 1990's many parts of the public like the environmentalists, small businesses and unions started to lobby the government for a tenure reform. Forestry at a small scale was seen as a way to reconcile the objectives of environmental protection and economical development. In 1991 the Forest Resource Commission recommended reforms that would increase the small scale forestry up to one third. These recommendations were never implemented, but the government started to award volume-based Forest Licences to a small number of communities e.g. Creston and Kaslo.

A real shift in the provincial tenure system happened in 1998 with the launch of Community Forest Pilot Project. A new form of tenure was created, the Community Forest Agreements (CFA), but it was only implemented on an experimental basis. As the main decision group, the Community Forest Advisory Committee had the power to make recommendations on the tenure structure and pilot selection process (Ambus et al., 2007). Six years later, in 2004, the experimental projects showed positive results and the ministry formalized the Community Forest Agreements. Moreover, it announced its intention to double the existing community forest program by using part of the timber reallocation in the Forest Revitalization Plan (British Columbia Community Forest Association, 2010).

Presently there are 23 CFAs issued by the government (see Figure 1), 21 communities are having a Probationary Community Forest Agreement and another 15 have received an invitation to apply. There is an evident growing popularity of community forests in British Columbia. In 1998, when the pilot project was announced over 80 communities (out of which 59 have started some legal proceedings) expressed interest, and the demand is still growing. However, all the 59 communities account for roughly 1.5% of the total provincial Annual Allowable Cut (AAC), somewhat insignificant when compared with other forms of tenure like Forest License or Tree Farm License (Ambus et al., 2007).

CFA Issued	AAC (m3)	Area (Ha)	Date issued	TSA
Burns Lake Community Forest Ltd. (Burns Lake)	86,000	84,886	12/04/2005	Lakes
Esketemc First Nation (Alkali Lake)	17,000	25,000	31/03/2006	Williams Lake
McBride Community Forest (McBride)	50,000	60,860	28/02/2007	Robson Valley
Harrop-Procter Community Co-op (Harrop-Procter)	2,603	10,860	31/03/2007	Kootenay Lake
Likely-Xats'ull Community Forest Ltd. (Likely)	25,000	20,550	01/04/2007	Williams Lake
Cheslatta Carrier Nation (Cheslatta Lake)	16,613	39,129	01/10/2007	Lakes
Cherry Ridge Mngmt Committee (Cherryville)	1,500	1,081	01/01/2009	Okanagan
Cheakamus Community Forest Ltd Partnership (Whistler)	20,000	30,284	09/04/2009	Soo
WestBank First Nation (West Kelowna)	55,000	45,693	01/08/2009	Okanagan
McLeod Lake-Mackenzie Com. For. Ltd. Part. (Mackenzie)	30,000	24,218	01/09/2009	Mackenzie
Klahoose Forestry Ltd. Partnership (Toba Inlet)	102,293	160,212	06/10/2009	TFL 10
Nupqu Development Corp (Ktunaxa)	5,790	20,234	01/10/2009	Cranbrook (Federal land)
Tanizul Timber Ltd (Ft St James)	152,672	47,592	01/11/2009	TFL 42
Alberni Valley Community Forest Corp. (Port Alberni)	18,156	6,773	02/11/2009	Arrowsmith
100 Mile Development Corp. (100 Mile House)	20,000	18,712	01/12/2009	100 Mile
Dunster Community Forest Society (Dunster)	15,000	20,009	31/12/2009	Robson Valley
Kaslo & District Community Forest Society (Kaslo)	25,000	32,510	01/01/2010	Kootenay Lake
Vermillion Forks Community ForestCorp (Princeton)	20,000	12,950	01/01/2010	Okanagan
Dist. of Fort St. James (Ft St James)	23,895	15,131	07/03/2010	Prince George
Wetzin'kwa Community Forest Corp. (Smithers)	30,000	22,369	01/07/2010	Bulkley
HFN Forestry Limited Partnership (Huu-ay-aht)	16,992	2,420	17/12/2010	Arrowsmith
District of Tumbler Ridge (Tumbler Ridge)	20,000	19,739	01/01/2011	Dawson Ck
Xaxlip (Lillooet)	25,683	22,948	01/02/2011	Lillooet
Total	23	779,197	744,160	

Figure 1: Awarded Community Forest Agreements (British Columbia Community Forest Association, 2010)

Attributes, structure and terms of CFA

There are a number of special attributes that characterize the CFAs. First of all, they are area-based, operating on an area of land with distinct boundaries, as opposed to volume-based licences. On this defined area they provide a more comprehensive set of rights, allowing to “harvest, manage and collect fees for botanical non-timber products” (Ambus et al., 2007). CFAs are the only form of tenure that incorporates rights to Non Forest Timber Products (NTFPs).

It represents a long-term tenure form, being awarded for a period of 25 years, renewable every 10 years. Before March 2009 there was an initial probationary period of 5 years, but it has been removed with the passing of a Forest Act Amendment. The legal entities that hold the tenure are also more diverse than other types of tenures, as CFAs can be managed by community-based organization,

including non-profit societies, corporations, cooperatives, municipal governments or First Nations organizations. Also, they are not transferable, excepting the ones that have received the consent of the Ministry of Forests, Land and Mines, and only to another community-based organization.

When the pilot project was created, communities could obtain a CFA by a competitive process or by invitation from the Community Forest Advisory Committee (CFAC). Later, under the Forest Revitalization Plan, the government selects communities and invites them to apply. After being invited, communities have to complete several requirements:

- Create an overview of the area proposed
- Describe the legal entity and governance structure
- Formulate a management plan
- Formulate a business plan
- Show community awareness, support and involvement

The application is then evaluated at different levels by the ministry and the final decision is done by the office of the Minister. It has been estimated that the application process takes up to a maximum of 2-3 years and can cost around \$183 000 (Gunter, 2004).

In terms of forest practices, the CFAs holders have to respect the same rules as major industrial licensees. They must create a Forest Stewardship Plan that is approved by the Forest District Manager and have to “make reasonable efforts” to involve any of the First Nations groups that can be affected by the forestry activities. They have to prepare site plans, apply for cutting and road permits and satisfy the entire results-based regulatory framework of the Forest and Range Practices Act. The volume harvested can be varied annually as long as the overall 5 year AAC is met.

Because the CFA are only a form of tenure, without actually owning the land, the holders still have financial obligations to the government. This includes an annual rent of \$0.37/m³ and stumpage fees. In the first years of the project, the latter were appraised under major licensees’ rules, but later they were reduced to accommodate for the low volume of the wood cut (Ambus et al., 2007).

In addition to all the requirements mentioned above, all tenure holders need to meet some extra objectives present in an evaluation scheme created by the Ministry. They include returns to the province, economic self-sufficiency, forest practices and management, innovation and safety, returns to community, governance and compliance and an incremental use of the land base. Some of these objectives can be difficult to interpret and evaluate.

Community forests in Canada

Even though it might not be so acknowledged, a variety of community forest types exist in the other provinces of Canada, mainly Quebec and Ontario. They have different characteristics with regard to size, age or way of government, but they all fall under the community forest definition as “A public forest area managed by the community as a working forest for the benefit of the community.” (Teitelbaum, Beckley, & Nadeau, 2006).

Quebec

The province of Quebec, probably more than other provinces, showed a strong mobilization of the rural population with regard to the issue of public forest control and access. In order to combat economic decline and outmigration, communities aimed at having the lands adjacent to the settlements under their management. As a result, this province has two main forms of community agreements: Territorial Management Agreements and the Forest Management Contracts on Crown Land, totalling 52 initiatives of community forestry.

The **Territorial Management Agreements (TMA)** have first been signed at the end of the 1990s with the specific objective of socioeconomic development and revitalization of local communities. It represented an agreement between the government, the municipalities and Regional County Municipalities (RCM) by which the latter obtain rights over regional and intramunicipal forested lands. This form of tenure allows for a comprehensive set of rights including stewardship of the resources, rights over infrastructure, the right to lease and sell the land, to give permits, enforce rules and regulations and even to delegate forest management responsibilities to local businesses or other community groups (Teitelbaum et al., 2006). The authority that has the decision power is represented by the RCM council, which in turn is formed by the elected mayor of each municipality within the RCM territory. In addition to that, every RCM is obliged to have a multi-resource committee, composed of relevant stakeholders. The committee has the role of making recommendations to the council on the important issues such as financial matters and land use.

The average area of TMAs is about 12 000 ha and there are a multitude of uses that each RCM has decided to pursue. Some have focused on timber logging, others on blueberry production and others on enhancing tourism activities due to its proximity to larger cities. The management is done in house by contracted foresters or delegated to some other juridical entities. As a result, many new forms of management have emerged. For example, Malane RCM has divided its area in smaller parcels, each parcel being run by an individual as a small forestry business. Another one, Charlevoix RCM, combines forest activities with recreational ones, including a historical site and a downhill ski centre, and with commercial ones through a maple syrup business. All RCMs receive for start-up funding from the government and are eligible for forest related activities funding as well.

The other form of tenure is represented by the **Forest Management Contracts (FCM)**. It is a more limited method of possession, timber oriented, through which local organizations negotiate a FCM directly with the Ministry of Natural Resources. The size average is about 6000 ha, the duration varies from 1 to 25 years and holders have to pay stumpage to the volume harvested. There are however organizations like the Corporation de Gestion de la Foret de l'Aigle, which manages for other activities like recreation and community education.

Ontario

At the beginning of the 1990s the Ontario government started some community forest pilot projects, but due to changes in government and lack of support, most of these projects have not been continued to this day.

There are, nonetheless, around 50 examples of community forests as a legacy of “Agreement Forests”. These agreements have been done in the first half of the 20th century, in order to promote the rehabilitation of degraded and abandoned lands. The provincial Ministry of Natural Resources planted these areas and granted them either to local governments (counties, regional municipalities and municipalities) or to local conservation authorities. Currently, the governing body is composed of the politically elected council, and most have a few paid staff to deal with forest management and other issues. The median size of such an agreement is about 2000 ha and the way of management varies to a high degree. The conservation authorities are focused more towards natural values and conservation, with little timber harvesting. The ones awarded to local authorities tend to incorporate more activities, such as recreation, education and harvesting.

In terms of standards of comparison, for both Quebec and Ontario, some differences in the ecological sustainability (A) and efficiency (C) categories can be observed. First, many of CFs in eastern Canada have been created to improve the former ecological conditions. Consequently they have resulted in an increase of forested area or ecological diversity. The community forests of BC do not have as primary purpose the recovery of degraded areas, and therefore the ecological sustainability is not as important. Second, the CFs in the eastern provinces have an increased efficiency by managing for a multitude of purposes (e.g. education, tourism). This allows a maximization of the resource use and reduces the conflict within the community. The CFs in BC have a narrower management objectives which does not always uses the maximum potential of the forest. In regard to equity, there are no major differences between the two models.

International models of community forests

Community forestry exemplifications can be found in many of countries, in different forms and with different histories. Being closely linked to the people, community forestry varies from one culture to another, each with a distinct record and evolution.

Mexico

The first case study to be analyzed will be a community forest from Mexico. The selected one is, Ixtlan Communal Forestry (Unidad Comunal Forestal, Agropecuaria y de Servicios Ixtlan, UCFAS), which represents a good case of comparison with community forestry in British Columbia (Davis, 2008).

In Mexico, community forests emerged historically after the Mexican revolution, between 1934 and 1940. This reform, under the president Lazaro Cardenas, granted agriculture lands to the peasants. There were also grants, called *ejidos*, for groups of people, which included various types of lands, including forest. As a result of these reforms, presently about 80% of the total forest area is owned by communities. Furthermore, 18% of the country’s forests are directly managed by local communities, making Mexico the country with the largest share of forested lands under community management (Sarukhan & Merino, 2007). The estimates of the number of forest production communities range from a low of 288 to a high of 740, but the importance of community forests varies from state to state (Bray et al., 2005).

The forest resources in the state of Oaxaca, where UCFAS is located, remained under the control of the state for a period of time. State-owned companies like Fabricas de Papel Tuxtapec were created with the power to use the forestry resource at their own discretion. Only in 1982 was the community able to obtain full rights to management (Mathews, 2002). This case is seen as a pioneer in gaining community rights, with the government making strong political commitments only in 2003 with the new Forest Law.

Presently the total area of the community forest is 13 425 hectares, divided in three types: areas of restoration, protection or production. Production forest represents a little more than half of the entire area and the harvesting is done through single-tree selection, group selection and seed tree systems (Ganz & Burckle, 2002). The establishment of new trees is aided by controlling competing vegetation with hand work. If regeneration is not happening in 3 years, the sites are given to the farmers. At this point the restoration is minimal, mainly focus on erosion control. The protected areas are those with important values for the water supply, cultural or set aside for specific needs.

The harvesting is done through logging permits, which must be previously included in a management plan designed by accredited foresters. The forestry practices are implemented with the community own structures. The revenues are distributed by an organizational committee and fund community projects, like a public transportation system and a local gasoline station (Davis, 2008).

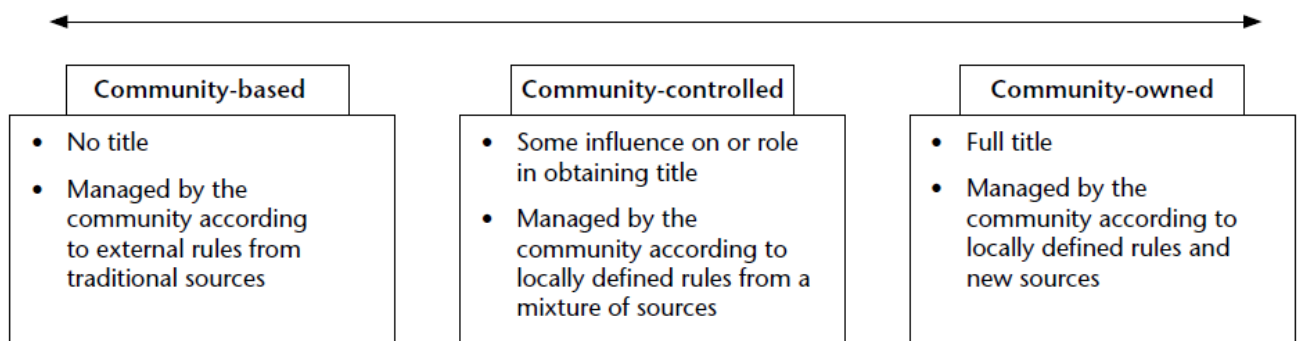


Figure 2: Continuum model based on Krogman and Beckley (2002) showing the relative definitions of community

In the model produced by Krogman and Beckley (2002), which describes the level of community ownership (Figure 2), the Ixtlan Communal Forestry tends to be on the right side of the axis.

Consequently, the community is having full title and managing the forest according to locally defined rules from a mixture of sources. These characteristics allowed the community to adopt a community-ecosystem based management, with a good integration of social and ecological objectives at various levels.

The community forests in British Columbia are situated more on the left of the model, with an external, mainly not traditional, set of management rules. As a result, community forests are not able to tailor so well the actions to their objectives. For instance, British Columbia's community forests are not required to utilize ecosystem management principles. This may please some CFs that consider this as an impediment to their already overburden forest operations, but some may aspire to higher ecological standards than industrial forestry. External regulations can even lead to more extreme situations. There

were instances when the ministry required the community to harvest a minimum volume as asked by the bylaws.

Due to these reasons, the Mexican community forests are performing better under the ecological sustainability (A) criteria. An indicator of that can be the fact that, by March 2002, 25 Mexican communities have been certified under Forest Stewardship Council (FSC) standards with a total area of 502,656 ha (Bray et al., 2003) (with only one in B.C.). Communities have also shown a commitment to biodiversity. La Ciudad ejido in Durango, has 10% of its 11,869 ha are under protection, including 153 ha with stands of *Pseudotsuga menziesii*. In the UZACHI communities, with a total of nearly 25,000 ha of community territory, 52% has been declared protected forest by the community, 10,000 ha of it being highly biodiverse and threatened cloud forest. The Quintana Roo community of Naranjal Poniente, declared 2000 ha next to the community as a “forest reserve” that is currently being used for scientific research and may be used for ecotourism and has prohibited cattle raising in the community. Some satellite imagery has shown that the forested area belonging to the Zapotec-Chinantec Union (UZACHI) communities has increased by 500 ha in the last 18 years as a result of community reforestation and limits on agriculture in forest areas (Bray et al., 2003).

When compared for efficiency, the Mexican CFs are also more advanced in terms of improvement of local living standard and economic development. The El Balcón CFE also generates around 250 full- and part-time jobs and has a successful commercial relationship with U.S.-based Westwood Forest Products. Others have partner up with retail stores like Home Depot and have become their suppliers.

Cameroon

The history of forestry in Cameroon shows signs of similarity with the one in Canada. Both share a common origin in colonization by European nations and have a public tenure of forest, with large scale industrial firms as the main resource users.

A decade after gaining its independence in 1960, the government of Cameroon started to introduce laws governing forestry and land issues. In an effort to strengthen the role of central administration, the forests of Cameroon came under the state ownership and control. Large multinational logging companies were granted forest concessions, and the principal goal was economical development. Due to rising unemployment in forest communities and ecological degradation, there was pressure to reform the forest tenure structure. Consequently, in 1994, community forest licenses were created, with the purpose of increasing the standard of living for local populations and having a better forest conservation (Alemagi, 2010).

In Cameroon, the community forestry is regulated by two principal laws, while in BC this number increases to four. The maximum size of a forest is 5000 ha, compared with the industrial concessions that have an average size of 200 000 ha. As of April 2008, there were 135 separate licenses with a total of 621 245 ha of community managed forest (Ministry of Forest and Fauna, 2008). This number is very close to the area of community forest in BC, 657 700 ha.

Unlike B.C., there is a probationary period of two years, after which a permanent license of at least 25 years is issued. In terms of harvesting, the communities have the right to harvest 4% (1/25) of the total

forested surface every year if the license is issued for a 25 years period (Alemagi, 2010). Financial charges (such as exportation fee for unprocessed forest products) have to be paid for the entire volume, but there are no stumpage fees.

The entity that can apply to become the legal manager of the forest can also vary depending on the situation. It can be an association, a co-operative, a common initiative group or an economic interest group. The submission process is different from the one in BC, being somewhat simpler. The primary application has to be endorsed by the legal entity and include the objectives, location of the forest, name of the association applying, a provisional management agreement and a summary of the findings from the public consultation. In later phases, a management plan will also have to be submitted. The entire process takes about 18 months, a time frame very similar again with the one in BC of around 24 months. The authority that reviews the application and grants the community forests is in both cases the ministry in charge of the forest resources.

Despite differences in economic development, forest certification is almost lacking in both programs. From all 135 licences there are no FSC certified forests in Cameroon, while in BC there is only one certified. This happens because, as one manager from a community forest organization said, there is “no market benefit for certification” (Alemagi, 2010). Regarding monitoring and evaluation, the two models differ greatly. In Cameroon, annual reporting is mandatory, while in BC reporting is left at the complete discretion of the district manager. The enforcement of regulations is also different, being shared by the community and ministry in Cameroon, whereas in BC the ministry is solely responsible for that. Figure 3 summarizes all the differences between the two jurisdictions.

By comparing the two programs, the Canadian model demonstrates advances for all three measures of success: ecological sustainability, equity and efficiency. Nevertheless, there are parts of the efficiency criteria that can be improved. These are mostly part of the government’s program management and include the long processing and approval times and the highly centralized process.

Assessment criteria	Cameroon	BC
1. Legislation governing community forests:		
1.1. Legislative provisions	Two general legal statutes regulate community forest in the country Maximum statutory limit is 5000 ha	Four specific laws govern community forests in BC No minimum or maximum size specified
1.2. Size		Five year probationary license is first issued that can be extended to a long-term agreement ranging between 25 and 99 years
1.3. Tenure duration	Two year probationary license is first issued and can be extended to a long-term agreement with a minimum duration of 25 years Rights to timber in 1/25 (one-twenty-fifth) of the surface area occupied by the forest each year over the tenure duration No stumpage and provisions for waste assessment is required	Rights to timber exploitation with annual allowable cut ranging between 1000 and 63,000 m ³ /year
1.4. Timber processing		Stumpage and waste assessment within the community forest is mandatory
1.5. Legal entity	Associations, co-operatives, common initiative groups, and economic interest groups	Eligibility must include a First Nations band, a society, an association, a corporation, and a partnership
1.6. Land entitlement and exploitation of NTFPs	Holders can exploit NTFPs, but do not have any entitlement to the land	Holders can exploit NTFPs, but do not have any entitlement to the land
2. Procedures for forming community forests:		
2.1. Public consultation	Minimal public consultation	Thorough public consultation
2.2. Requirements of the Management plan	General requirements	Specific requirements
2.3. Submission of application and average time to procure a license	Submission is done in two stages Average time to procure a license is approximately 18 months	Submission is a one-step process Average time to procure a license is between 18 and 24 months
2.4. Review of application	Done using guidelines for preparing and evaluating the application dossier and management plan	Review is conducted based on set requirements and a checklist for the evaluation of the management plan and application
2.5. Decision-making and authority concerned	MINFOF is the decision-making authority	Final decision rests with the Minister of Forests and Range
3. Administration and oversight of community forests:		
3.1. Competent authority	MINFOF and forest delegates at local level	Ministry of Forests and Range and forest authorities at the regional level
3.2. Level of cooperation among relevant administrative bodies	Limited cooperation between MINFOF and relevant ministries	Weak coordination between Ministry of Forests and Range and Ministry of Environment
4. Other measures for maintaining and improving community forest operations:		
4.1. Forest certification	No certified community forests	One certified community forest
4.2. Reporting	Annual reporting is mandatory	Request to submit a performance report is at the discretion of the regional or district manager
4.3. Monitoring and enforcement	Monitoring by MINFOF	Ministry of Forests and Range is responsible for monitoring and follow-up
4.4. Expertise and training in the management of community forests	Limited personnel with training in forestry	Highly qualified technical experts in forestry
4.5. Implementation of efficient equipment and machinery	Processing and extraction of timber from community forests is crude and labor-intensive	Timber extractions and processing is more highly mechanized
4.6. Legalized logging	Illegal logging is practiced on a larger scale	Illegal logging exists only on a small scale
4.7. Customer relationships and distribution channels for forest products	Generally poor relations between communities and customers regarding the sale of forest products Channels for forest products are not secure	Good relations between communities and customers Price security for forest products
4.8. Reforestation	A major provision in the legislation	Prescribed in legal framework

Figure 3: Community forest program comparison (Alemagi, 2010)

Discussion

Researchers have tried to understand what characteristics of a community forest will make it a successful enterprise. In one study, Pagdee et al (2006) use a meta-analytical approach in order to answer the question “What makes community forest management successful”. They compare 69 case studies worldwide and related the success of a community forest to their attributes. Their results showed that the three most frequent factors in a successful community forest are well-defined property rights, effective institutional arrangements and community interests and incentives, all of them having a significant association with success.

Other factors such as the size of community, clearly defined boundaries, financial and human resource support or physical features seem to not correlate strongly with how successful a community forest is. The study may have a few drawbacks such as samples being taken mainly from the developing countries, with only a small percent from the developed ones and case studies being taken from literature research. However, these methods allowed the authors to analyze a large number of cases from different parts of the world and obtain a broader view of the factors that influence success.

With the help of recent research about the success of community forests and a limited availability of resources, the province of B.C. tried to focus on the main areas that require improvement. In 2006 the B.C. Ministry of Forests and Range commissioned an independent review of the Community Forest program. The report recommended some changes to the tenure structure and the program so that it will be able to better achieve its objectives. Some of the recommendations included:

- creating a strategic plan for the program
- eliminate the probationary period
- First Nation support
- have a clear timeline for the application
- have a competitive process rather than application by invitation
- ensure a minimum level of support from communities.

Some of these recommendations have already been implemented (i.e. the elimination of the probationary period), but many are still not solved. Some of these issues can also be found in the factors identified by Pagdee et al. (2006) as important to the success of community forest management. These are: security of tenure to a resource (i.e. probationary period), financial and human resource support (from government agencies and NGOs), willingness of authorities and staff to implement CFM (i.e. have a clear timeline for the application and create strategic plan for the program) or level of participation (First Nation support). By comparing with other jurisdictions, we can observe some other elements that need improvement or new ideas that can enhance different aspects of community forests.

The programs in Ontario and Quebec showed a broad range of management objectives, without focusing only on timber. Many plans included in addition recreation and education, ideas that can be

productive in some of the cases in B.C. The CFs were receiving funds from the government for different projects, showing that assistance is definitely needed, especially in the commencement period. Support can be given not only in money, but also in terms of expertise and man power. In Quebec, some CFs were divided into smaller lots for individual management. There may be cases in B.C. where this approach is more efficient, so regulation that examines that can be created

The case study in Mexico presented also some opportunities. Because the community had a clearer ownership, the managers were able to match the aims of the community to the ones of the forest management plan. They were able to define their own rules, which made more use of their traditional knowledge, and in the same time not compromising ecological values. There are communities in B.C. that will consider a better stewardship of the land compared with industrial forestry, if allowed more freedom. Furthermore they were able to build partnerships with larger commercial companies which have ensured stability in the business development.

Even though it was situated in a developing country, the community forest program in Cameroon showed striking similarities to the Canadian one, both having public owned forests and use a “concessions” or “tenure” system to allocate timber rights. There were many opportunities for improvement in Cameroon, but the study also highlighted some deficiencies in the North-American CF: highly centralized process of approval, long processing times for the application and allowing the district manager to ask for review any time without having a clear timeframe.

Conclusion

The paper tried to compare the Community Forest program in British Columbia with other community forests around the world. This helps the local managers and legislators to identify improved methods of managing the forests, find some of the faults of the current system and explore completely new ways of perceiving a community forest. By examining community forests in Canada, Mexico and Cameroon, the B.C. program was seen in a new perspective, with new concepts that can be implemented.

Even though the provincial Community Forest program is still undergoing and not completely developed, it is clear, by looking at the number of participants and applications, the CF is seen as a step of progress. This means that there will be an increased demand of community forests in our province, and the decision-makers will have to make sure that the best model is chosen and that new forested lands from the provincial land base will become available for the development of the program.

Community forests are improved through a continuous learning process from a broad array of sources. More comprehensive research is necessary on issues like what factors influence the success of a community forest, what are the best methods of distributing benefits to the members of the community and economic analysis of some of the community forests are all areas which should be examined in the future.

References

- Alemagi, D. (2010). A comparative assessment of community forest models in cameroon and british columbia, canada. *Land use Policy*, 27(3), 928-936. doi:DOI: 10.1016/j.landusepol.2009.12.006
- Ambus, L., Davis-Case, D., & Tyler, S. (2007). Big expectations for small forest tenures in british columbia(very important- many other articles about cf in bc at this issue of journal). *BC Journal of Ecosystems and Management*, 8(2), 46-57.
- Bray, D. B., Leticia, M., & Deborah, B. (2005). *The community forests of mexico* University of Texas Press.
- Bray, D. B., Merino-Perez, L., Negreros-Castillo, P., Segura-Warnholtz, G., Torres-Rojo, J. M., & Vester, H. F. M. (2003). Mexico's community-managed forests as a global model for sustainable landscapes. *Conservation Biology*, 17(3), 672-677.
- British Columbia Community Forest Association. (2010). *Community forestry: Past and present*. Retrieved December, 2010, from http://www.bccfa.ca/index.php?option=com_k2&view=item&id=15:a-brief-history-of-community-forestry-in-british-columbia&Itemid=8
- British Columbia Ministry of Forests, Mines and Lands. (2011). *Community forestry*. Retrieved February, 2011, from <http://www.for.gov.bc.ca/hth/timber-tenures/community/index.htm>
- Clogg, J. (1997). *Tenure reform for ecologically and socially responsible forest use in british columbia*. (MES major paper, York University).
- Davis, E. J. (2008). New promises, new possibilities? comparing community forestry in canada and mexico. *JEM—VOLUME 7, NUMBER 2 40, 9(2)*, 11-25.

- Duinker, P. N., Matakala, P. W., & Zhang, D. (1991). Community forestry and its implications for northern ontario. *The Forestry Chronicle*, 67(2), 131-135.
- Ganz, D. J., & Burckle, J. H. (2002). Forest utilization in the sierra juarez, oaxaca, mexico. *Journal of Sustainable Forestry*, 15(1), 29-49.
- Gunter, J. (2004). *The community forestry guidebook: Tools and techniques for communities in british columbia.forrex–Forest research extension partnership and british columbia community forest association, kamloops and kaslo*. BC forrex Series Report.
- Krogman, N., & Beckley, T. (2002). Corporate" bail-outs" and local" buyouts": Pathways to community forestry? *Society & Natural Resources*, 15(2), 109-127.
- Larson, A. M., Barry, D., Dahal, G. R., & Colfer, C. J. P. (2010). *Forests for people: Community rights and forest tenure reform*. London: Earthscan.
- Luckert, M. K. (1999). Are community forests the key to sustainable forest management? some economic considerations. *Forestry Chronicle*, 75, 789-792.
- Mathews, A. S. (2002). Mexican forest history. *Journal of Sustainable Forestry*, 15(1), 17-28.
- Ministry of Forest and Fauna. (2008). *Community forest facts and figures*.
- Pagdee , A., Kim, Y. S., & Daugherty, P. J. (2006). What makes community forest management successful: A meta-study from community forests throughout the world. *Society & Natural Resources*, 19(1), 33-52.

Pearse, P. (1992). Evolution of the forest tenure system in british columbia. *BC Ministry of Forests, Victoria, BC,*

Sarukhan, J., & Merino, L. (2007). *Challenges to sustainable forest management and stewardship in mexico*. Unpublished manuscript. Retrieved 01/04/2011, from http://pdf.usaid.gov/pdf_docs/PNADL267.pdf

Teitelbaum, S., Beckley, T., & Nadeau, S. (2006). A national portrait of community forestry on public land in canada. *Forestry Chronicle, 82*(3), 416-428.