

**TENURE ARRANGEMENTS FOR
FACILITATING COMMUNITY FORESTRY
IN BRITISH COLUMBIA**

by

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ABSTRACT

Community forestry is a concept whose time has finally 'come' to British Columbia through a convergence of events including: recommendations from forestry commissions; high profile international conferences and publications on sustainability; increased social awareness of forests and forestry; and greater public pressure for community needs to be addressed.

This thesis investigates tenure arrangements to facilitate community forestry in British Columbia. BC forest tenures have evolved over the last century and have timber management biases leading to failures in addressing community forest management concerns. To date, community forestry has not played a significant role in forest management in the province.

Community, culture, conflict and planning are highly interrelated concepts and understanding their linkages is essential for successful forest and community planning. Community forestry, which with its long history of success can be an integrated planning tool for sustainable forestry. International community forestry is reviewed, with a particular focus on Sweden which has social and economic similarities to Canada. National and provincial surveys are used to determine the levels of awareness and understanding of community forestry.

While offering some advantages, there are limited opportunities to exploit existing tenures due to their industrial focus and continuing policy failures, suggesting a need for new community forest tenures. New community forest tenures offer the opportunity to avoid failures associated with previous tenures and the ability to experiment. Community forestry principles are incorporated with theory, literature and survey information to draft the characteristics of new tenures which offer a more effective and flexible policy vehicle to facilitate community forestry.

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CHAPTER I.

INTRODUCTION: THE RESEARCH PROJECT

BACKGROUND - COMMUNITY FORESTRY, ITS TIME HAS COME.

Community forestry has been practised in parts of Europe for over a millennium, and the environmental, economic and social benefits it provides are increasingly understood and appreciated.

A community forest is defined as,

Around the world, the forested lands surrounding or considered to be part of the community. In a 'developing world' context, community forests are a source of fuelwood, fodder, grazing and agriculture, and typically the most vital means of community survival. See also Agroforestry. In the developed world, community forests are less well defined and encompass many forms of tenure to achieve many different purposes, including recreation, aesthetics, timber supply, fish and wildlife enhancement, and watershed protection. However, as in the developing world, most forms embrace the concepts, in varying degrees, of local benefits for local people, local control of local resources, and one or more intensive forms of management to provide a wide array of outputs from the forested lands (Dunster and Dunster 1996, 65).

In the Province of British Columbia, the potential value of community forests has been recognized since the 1930s. The establishment of such forests was explicitly recommended by Chief Justice Gordon Sloan in both his 1945 and 1956 Royal Commission Reports on BC's Forest Resources,

Areas of reverted land situated in or near settled communities could also be managed on a sustained-yield basis as public working-circles by municipal authorities, subject to regulations designed to prevent improvident future management and transactions in relation thereto. These community forests, apart from the timber production therefrom, have proven to be of considerable value in the United States as a means of acquainting the public with the benefits to be secured from the practice of sustained-yield forestry, the necessity for fire-protection, and related subjects (Sloan 1945, Q147).

This concept [Municipal Forest Management Licence] is one which should find a wider acceptance, and as a guide and encouragement to other municipalities owning forested land areas, and with unalienated Crown timber contiguous thereto, I think it is desirable to set out in some detail the background of the application of the Mission District Municipality for a management licence (Sloan 1956, 743).

Sloan's recommendations for community involvement in forest management were not adopted -

with the notable exception of the District of Mission which obtained Tree Farm Licence Number 26 in 1958 (District of Mission 1996). There emerged, instead, a system under which most public forest land is held under long term licensing arrangements by a relatively small number of large forest products corporations (Haley and Luckert 1990) - many with multinational interests (Pearse 1976).

The attractiveness of local control over forests was again raised and supported by Dr. Peter Pearse in his 1976 Royal Commission on Forest Resources,

Local governments that are prepared to integrate their lands with surrounding Crown forest land is one attractive possibility. The sensitive balance between timber production, recreation, and other non-commercial forest land uses that are particularly valuable close to centres of population can in these cases be struck locally, making resource management highly responsive to local demands. It is to be hoped that the success of the Tree-farm Licence held by the District of Mission, in the Fraser Valley, can be repeated elsewhere (Pearse 1976, 118).

A strong case was made for small scale forestry - including community forests - in the Executive Summary report of the BC Forest Resources Commission,

A bigger share of the Allowable Annual Cut should be allocated to smaller tenure holders who will manage the forests with emphasis on such values as community watersheds, range, wildlife, recreation and community forests (Peel 1991, 19).

In 1993, a community forestry conference was held in Haney (Mission) to investigate community forestry and to inform communities, government and industry about the concept. This two day conference was very well attended and a proceedings was financed by Forest Resource Development II (FRDA II) funding. Later that year in November, the *Oona River Community Forest Proposal* was submitted, the first community forest proposal since that of Mission in the 1950s. There have been over 100 requests for copies of this study from communities and individuals around the province directed to the Skeena-Bulkley Regional District who financed the study.¹

Community forestry is also a topic which was actively explored by the BC Commission on

¹Fletcher 1996.

Resources and the Environment (CORE)².

In April 1996, the *Malcolm Island Community Forest Tenure Feasibility Study* (Robin B. Clarke Inc. 1996) was published with this work being funded by Forest Renewal BC³. In May 1996, the *Feasibility Study: Prince George Community Forest* (Cortex Consulting 1996) was released, with this work being funded by Forest Renewal BC, the City of Prince George and seven local forest companies.

The Union of BC Municipalities (UBCM) addressed community forestry in both the 1996 and 1997 Annual General Meetings and there was a UBCM sponsored Community Forests Conference in Rossland in January 1997. Two Community Forest Symposia in Masset and Skidegate on Haida Gwaii/The Queen Charlotte Islands were held in September 1997 sponsored by the Islands Community Stability Initiative. At the 1997 UBCM AGM, a community forestry committee was struck to formally investigate community forests and lobby the provincial government for their establishment.

The BC government, while appearing to renege on promises of tenure reform made in 1995,⁴ are taking some steps to address the public interest in community forests. There were a number of announcements during 1996-97 of non-replaceable Timber Licences targeted for communities. In 1996 the Ministry of Forests made a commitment to establish at least one community forest license on Haida Gwaii/The Queen Charlotte Islands (Islands Community Stability Initiative and Ministry of Forests 1996). These initiatives are addressed in more detail in Chapter Two.

In July 1997, the report *Forests in Trust: Reforming British Columbia's Forest Tenure System for Ecosystem and Community Health* was released. This study, discussed in more detail in Chapter Two, explores eco-system based community management and proposes establishing a *Community Forest*

²Leech 1994.

³Gardner 1998.

⁴Petter 1995.

Trust Act (Burda et al. 1997). The work has received a lot of attention from communities, interest groups and the government.

The Jobs and Timber Accord (discussed in more detail in Chapter Two) announced on June 19, 1997 represents another government forestry initiative that addressed the need to look after the forest to sustain jobs, communities and environmental integrity (Ministry of Forests 1997a). One aspect of the accord is a community forestry pilot study and the establishment of a Community Forests Advisory Committee, who by the end of May 1998, had addressed among other things: recommendations on tenure structure and developed criteria to evaluate community pilot proposals.

The repeated reference to the value of community forestry in previous Royal Commissions, conferences, symposia, forestry journals and published reports along with the current high public interest suggest that community forestry is an 'idea whose time has come'.

In many ways the recent developments surrounding community forestry can be viewed as having been driven by a convergence of events including:

- The 1987 publishing of *Our Common Future* and the public becoming aware of the concept of sustainability and community involvement in resource management;
- Canada's 1991 *Green Plan* and the emphasis on establishing sustainable development and specifically sustainable forestry with greater public input;
- The 1992 Rio Summit and the importance of sustaining forests in that process;
- Effective awareness raising and issues definition and media use about forestry practices by Non-Governmental Organizations such as GreenPeace, World Wide Fund for Nature and others;
- Growing public awareness regarding the importance of forests and the need to have good forest management to ensure the sustainability of those forests and more lately a growing appreciation of peoples' dependence on healthy forests;
- International marketing pressures and boycotts which have been instrumental in raising the

profile of forestry in the province and have led to an acceptance by industry and the government of a need to 'change our ways';

- The certification movement, especially the Forest Stewardship Council (FSC) and the pressures this places on timber and wood products suppliers to follow acceptable forest management practices and address community and Indigenous Peoples issues;
- The growing awareness of the Union Of BC Municipalities (UBCM) and the political power that this association has in lobbying government;
- The current provincial government is 'greener' than previous governments. This government has implemented a number of resource and forestry initiatives (some which were made in the Peel Commission's final report of 1991), including: undertaking a Timber Supply Review (TSR); establishing a Forest Practices Code (FPC); establishing log yards to promote competition and increase access to timber; establishing smaller tenures for communities and First Nations groups to meet their economic and social needs; and establishing a forest funding mechanism (Forest Renewal BC).

All of these factors have contributed to a greater focus on the forests and people - with a special focus on forest dependent communities and the possibility of community forests.

There is often confusion (especially with the public) between the two terms timber management and forest management. It is important to differentiate between them, as they will be referred to throughout the thesis. Timber management is defined as,

The activity involving the allocation of forested lands for harvesting of the timber on that land. Timber management may involve planning, road-building, logging extraction of merchantable timber for processing off-site, and varying intensities of silvicultural activity to encourage another stand of trees to grow back. Timber management is an important subset of forest management, but it is not an equivalent activity (Dunster and Dunster 1996, 316).

Forest management is much broader in scale and scope and involves,

The practice of applying scientific, economic, philosophical, and social principles to the administration, utilization, and conservation of all aspects of forested landscapes to meet specified goals and objectives, while maintaining the productivity of the forest. Forest management includes the subset of activities known as timber management, but also involves planning and managing forested landscapes for fish and wildlife, biological diversity, conservation measures, parks, wilderness, recreation and aesthetic values. Forest management is an all-encompassing activity and is not to be confused with the more restrictive activities associated with timber management (Dunster and Dunster 1996, 137).

One final term will be defined, and that is the word forestry,

1. A profession embracing the science, business and art of creating, maintaining, and managing forested landscapes and their many component parts to produce consumptive and/or nonconsumptive outputs for use by humans or other species in a manner that does not cause ecosystem degradation. 2. A loosely used term to describe timber management, and associated activities such as silviculture and forest protection. It is often used erroneously, purporting to mean forest management when in fact describing timber management alone (Dunster and Dunster 1996, 137).

THE RESEARCH PROBLEM: OUTDATED LAND TENURE SYSTEM

This thesis will examine the existing level of awareness and interest in community forests in British Columbia and the types of arrangements for community forests desired by communities throughout the province. The thesis will address whether these perceived needs can be met within the constraints of the existing Crown forest tenure system or will require the creation of tenure instruments specifically designed to accommodate community involvement.

The benefits of this doctoral research include:

1. Providing an information base and guidance for future reforms to the crown forest tenure system;
2. Increasing the level of understanding of what is sustainable forestry development and what are sustainable forestry communities;
3. Generating knowledge and information which will be transferable to other Canadian provinces and territories⁵; and
4. Undertaking research which will be of some relevance to both less-developed countries as well

⁵Some of which have already expressed interest in this work.

as to developed countries.⁶

It has been apparent for some time that the current system of land tenure, while having served the citizens of BC well in the past, is being rendered obsolete and ineffective by: changing social attitudes towards forests; the transition from old-growth harvesting to the establishment and management of second-growth stands; and increasing demands on the limited resource base (Haley 1993, Haley and Luckert 1995). Specifically there are four undesirable outcomes of the existing tenure system:

1. Inadequate incentives for timber growing and optimum forest establishment and management;
2. The existing tenures do not effectively address the transition from old-growth to second growth forests;
3. Inadequate incentives and/or management interest for the production of non-timber products and services;
4. The existing tenures do not address sustainable development, community and specifically community forest concerns.

These outcomes will be sequentially addressed in more detail below.

1. The existing tenure system was designed to provide for the orderly exploitation of old growth timber resources. It provides no incentives for timber growing (Haley and Luckert 1992) and is an unsatisfactory vehicle for optimum establishment and intensive management of timber crops (Mahood and Drushka 1990). Healthy productive forests are a pre-requisite for a stable forest industry and for stable communities with forest-based or dependent economies.

2. One of the most important concerns with the forestry situation in British Columbia is the transition from old-growth harvesting to second-growth management (Haley and Luckert 1994). The Nordic countries have almost completely made the transition from old-growth to managed forests of second-growth. Nordic forest land ownership/control is more widely held than in BC, with over 200,000 Swedish owners and 300,000 Finnish owners of forest land (Gilfillian et al. 1990). The success of forestry in the Nordic countries suggests that smaller, locally controlled and managed units are an

⁶This is based on the requests to the researcher for community forest papers and to present at international conferences.

effective means to address both multiple forest management concerns and the transition from first-growth to second-growth stands.

3. Existing forest tenures provide no incentives for the production of non-timber forest values (Haley and Luckert 1995a). Many of these values also appear to be more amenable to local production and management (Pearse 1976, Peel 1991, Hammond and Hammond 1992, Mitchell-Banks 1994).

4. Local community stability is said to increase with economic diversity (Byron 1976, Le Master and Beuter 1989). This intuitively makes sense. Economic diversification can be compared to a stock portfolio in that each different company or economic sector can be considered analogous to a stock - as each creates income. Similarly, the economic health of a community can be considered analogous to the value of a stock portfolio. The more varied the stocks held, the less fluctuation there is in the portfolio. This diversification is referred to as risk management and its primary purpose is to prevent rapid swings in the value of the stock portfolio. Mutual funds, with a number of stocks in each fund capitalizes on this risk management concept, and are typically not subject to rapid swings in price. Similarly, communities with a wide range of economic activities are not subject to the wild economic swings that single industry towns can experience. A decline in lumber prices would only impact the saw mill sector, but would not impact the agriculture, manufacturing, tourism or mining sectors for example.

British Columbian forestry management, until recently, has primarily been directed towards timber values (Pearse 1976, Marchak 1983, Pearse 1992, Clogg 1997). In other developed forestry nations, such as Sweden, Finland and Germany, forest management objectives are more diverse and explicitly address non-timber values such as recreation, aesthetics, and mushroom and berry production (Pukkala and Kangas 1994, Hakkila 1995, Hannelius et al. 1995).

The ownership of the forests in the Nordic countries and many other countries is more diverse, and the large number of owners have a spectrum of objectives and approaches in the management of their Non-Industrial Private Forest (NIPF) Land. In Finland, where every fifth family owns forest land,

social values such as local employment and traditional landscapes must be taken into account with forest management and harvesting activities (Hakkila 1995). Community forests - one of the forms of NIPF - typically focus more on timber production and employment in the north, while in the south there is more attention paid to recreational values.⁷ It would take the collective failure of a significant number of these private forests for the aggregate result to significantly impact nearby communities (Shelford 1993). This diversity within an industry can also contribute to economic stability.

Community forestry, which by its very nature is considered small scale forestry, can act as a planning interface/exchange mechanism between forestry inputs and outputs, effectively addressing the broad spectrum of timber and non-timber values in forestry management (Auden 1944, Pearse 1976, Harvey 1993, Mitchell-Banks 1994, Allan and Frank 1994, Revelstoke Community Forest Corporation 1995, District of Mission 1996.)

The British Columbia forest industry has developed the utilization of the natural old-growth forests in the province (Ministry of Forests 1992). These forests are essentially a 'free' resource that required little investment or forest management as they were already established prior to colonial development and indeed their presence led to the investment in the forest sector.

During this era of old growth exploitation, the interests of the forest industry, local communities and the provincial government have coincided, to a large degree, with the timber industry as the major source of community employment, corporate profits and public revenue (Marchak 1983). This is no longer the case and interests continue to diverge (Drushka, Nixon and Travers 1993). The conversion of the economically and legally accessible costless (to establish and grow), high value, high volume old growth stands is reaching completion. In 1976, Pearse wrote in his Forestry Commission Report,

...timber production in British Columbia has hitherto been based almost entirely on the recovery of virgin 'old-growth' timber, and the implications of the inevitable

⁷Jonsson 1994.

adjustment to 'second-growth' timber will be profound. The old-growth timber on which our industry has been built was often of exceptional quality, capable of manufacture into products that command premium prices in world markets. As this stock is depleted (and it is appropriate to refer to it as stock, since it is not reproducible within any meaningful planning horizon), much of the special advantage this province's timber has enjoyed will be lost (Pearse 1976, 6).

In a 1989 article in the *Globe and Mail*, Pearse wrote that under present economic conditions, there was approximately sixteen years of logging left on the coast (Shelford 1993). The British Columbian and federal governments refer to the reduction or conversion of the old growth forest,

The amount of timber harvested annually in BC is projected to decline in the near future in many areas of the province. Past and current harvesting activities are changing the composition of BC's forests. Existing forests with high volumes of timber are being harvested and replaced with younger, smaller trees, and in the future an increasing proportion of the timber harvest will come from these "second growth" forests. These future forest stands are expected to be harvested at an earlier age and will therefore contain a lower volume of timber per unit area than the original forest. Changing public values and a consequent increase in demand for non-timber resources will also likely result in a decrease in timber harvest in the future (Ministry of Environment, Lands and Parks and Environment Canada 1993, 50).

The recent provincial wide Timber Supply Review recommended by the 1991 Peel Commission acknowledged that for at least twenty years the decline in the timber supply has been expected (Ministry of Forests 1995). Exact time predictions are not the issue. What is important to consider is that this transition from the old-growth supplied forest sector to the second-growth industry will be full of challenges on how to harvest a smaller tree and process a very different type of feedstock. Binkley states,

British Columbia lies at a cross roads in the transition between forests provided by providence and those created through human husbandry and stewardship. Many of the changes now tormenting BC are predictable consequences of human interaction with primeval forests. Indeed, the earliest recorded story - the *Epic of Galgamesh* - written in cuneiform on a clay tablet 5,000 years ago - remarks on the dire consequences of forest depletion. Each subsequent civilization has re-lived this story with little change in the theme, from the Greeks in the Mediterranean, to the wandering bands in Central Europe, the Swedes in the last century and our southern neighbours in the last decade or so.

Large expanses of virgin forest remain in only a few places - in BC and elsewhere in

eastern Russia, in the Amazon and in parts of Africa. Those in BC lie on the cusp of an irreversible slide into the established historical pattern in resource depletion and attendant social disruption. But, unlike most other developed parts of the world, in BC there is still an opportunity to make the changes needed to sustain a vast wild estate while continuing a prosperous society based on forest revenues (Binkley 1995, 2).

Community forests in BC, as in many other parts of world, are increasingly seen as a component of sustainable development at a regional level (Auden 1944, Harvey 1993, Mitchell-Banks 1993). Community forests can serve as an effective integrated planning tool, helping address sustainability concerns such as: i) socio-economic issues including participation and equity; ii) ecological issues such as cumulative impacts and carrying capacity for a land base; iii) economic considerations such as helping to reduce the rural-urban flow of raw resources and finances that traditionally occurs in resource extraction and management (Auden 1944, Harvey 1993, Mitchell-Banks 1994).

Community forestry is centred around the primary concept of local control and decision making in the management of the forest lands surrounding a community (Dunster 1989, Harvey 1993, Mitchell-Banks 1993). Experience suggests this results in decisions that are more informed. The decision makers live in the area and are continually made and kept aware of the local concerns and hopes. Furthermore, the institutional arrangements involved in the management of the land base are responsive to local conditions and reflect the belief that "ecosystem and social-system variation should be reflected in policy and administration" (Gibbs and Bromley 1989, 31). Community forestry is not solely driven by the 'bottom line' or profitability goals that underlies industrial forestry or indeed any for-profit organisation.

This area specific management and institutional design is very applicable with respect to environmental concerns. As British Columbia moves towards more intensive silviculture, local knowledge of factors such as soils, micro climate, drainage, etc., will become more important. The value of this localized environmental knowledge is well established in many countries, including Germany, Switzerland, and throughout the Nordic countries where small scale forestry has been practised for generations at the same sites.

With community forestry, the decision makers living in the area have to face or live with the consequences of their planning decisions (good or poor), which effectively establishes a form of accountability. The local managers are accountable to local people. The local involvement, in effect a form of shared decision making by the community members, creates a sense of "ownership" or responsibility over the policy and decision making that involves "their" forest lands (Dunster 1989, Mitchell-Banks 1995, Clogg 1997).

Community Forests can exist under a number of different property rights arrangements involving various combinations of ownership or control. Private property, leased land, land trusts, tenured land from the state, land under contract, and other property rights' vehicles can all be utilized to vest property rights over the forest land base in the members of the community. This vesting can occur through various vehicles: 1) rights vested in a collective; 2) rights vested in a cooperative; 3) rights in a commons; 4) rights vested in a local government; 5) rights vested in a non-profit society; and 6) rights vested in a limited corporation.

A collective is the organizational unit of collectivism, which is the socialist principle of control by the state of all means of production or economic activity. In the former Soviet Union, Collective Farms were established which were operated by a community under the supervision of the state.

A cooperative, in contrast to the collective, is a community of people who freely agree to cooperate with each other. There is no direct state supervision of the enterprise. Cooperative membership is gained through the purchase of an equity stake in the venture - so cooperatives can be thought of as a social corporation. Membership in the cooperative involves agreeing to jointly assist and cooperate with other members, as delineated in the cooperative constitution or other mandates in undertaking the business plans. The Kibbutzim in Israel and the cooperatives in Mondragon (Basque region of Spain) are some of the best known cooperatives. The cooperatives in Mondragon encompass seven types, each adhering to ten cooperative principles (Morrison, 1991).

A commons is a marine or land area in which special rights, often traditional and/or exclusive, are given to land or vessel owners. Commons are found throughout the world, and can take a number of forms. In Japan, there are the coastal sea fisheries, in which complex and locally varied systems govern the conduct of the fisherman, with both local and state sanctions on inappropriate behaviour (Ruddle 1989). In Sweden there are forest commons in which various rights including grazing, forage, water for irrigation, hunting, fishing and timber rights are allocated. Some of these rights may be applied differently within the Byalag (organizational unit of land owners) with one family having a right to hunt elk,⁸ while another family may only have the right to hunt rabbits.⁹ The rights are administered by all of the land owners, with one vote being accorded to each land holding. These rights are revisited each year in an annual meeting, in which the land owners get together to discuss the management of their commons, to vote on decisions, and to take a tour of the common land, with the chief forester often giving the tour.¹⁰

The First Nations people of British Columbia have a diversity of concepts and practices of governance and territoriality. Factors such as how nomadic the people were, how their societies were structured (such as egalitarian or rank) and the physical location and inter-nation relationships that existed with neighbouring peoples all influenced property rights (Poelzer 1998). Community forestry is not a native concept and with the diversity of both historical, contemporary and potential future property rights, it is beyond the scope of this thesis to investigate Native property rights as a community forest model.

Rights can also be vested in a municipal government, in which the government will administer

⁸Scandinavians use the term elk for the animal which we call a moose.

⁹Andersen 1995.

¹⁰Andersen 1995.

the land or water resources on behalf of the community members. Most of the community forestry that exists in the nordic countries, Germany and parts of North America is representative of this form of resource management by a group. It is this model of community forestry that the thesis will focus on. Other potential models such as: unincorporated bodies or partnerships; non-profit societies; cooperatives; alternative structures; or limited corporations have been suggested (Robin B. Clarke Inc. 1996, Cortex Consultants 1996). In Chapter Six a detailed examination of administrative models is provided.

THESIS OBJECTIVES

Current tenure arrangements in British Columbia are believed to be inadequate vehicles for facilitating the establishment and management of community forests. More specifically, it is contended that existing tenures within the community forestry context:

- fail to provide adequate incentives for optimal forest management to address community concerns;
- fail to provide, or at times even provide for, the adequate management of a suite of timber and non-timber values;
- do not allow for the development and pursuit of locally defined management objectives;
- centralized forest management decision making leads to alienation of local interests, a general discouragement of local initiatives, and lack of accountability.

Rather than utilizing the traditional thesis method of hypotheses, the researcher and committee agreed to the use of objectives to define the research direction, methodology and thesis structure. The thesis objectives are listed below:

1. Compile a comprehensive review of the evolution of property rights, tenure and forest resource management in British Columbia and determine what role community forestry played in this;
2. Investigate the characteristics of forest tenures in British Columbia, with a particular focus on

- Tree Farm Licences, Forest Licences and Woodlot Licences;
3. Examine the interrelationships between community, culture and conflict and how these influence planning. Then, examine the challenges and risk of forestry planning and how a formalised planning and dispute resolution process with extensive public and community participation can be used to assist in the planning process;
 4. Investigate community forestry in the international setting, with a particular emphasis on Sweden (due to social and economic similarities to Canada) to determine how the forests are managed there and what might be transferable to Canada;
 5. Conduct a Canada wide survey to determine the levels of interest and awareness in community forestry;
 6. Investigate community forestry as an integrated planning tool and how it can assist in establishing more sustainable forestry;
 7. Conduct a provincial survey of the members of the Union of BC Municipalities to determine their levels of awareness of, and interest in, community forestry. There have been indications of awareness among British Columbia forestry-based communities about community forests. To date this awareness has not been quantified or formally evaluated;
 8. Investigate the issue of employing new or old tenure systems to facilitate community forestry in British Columbia;
 9. Review Dunster's twelve principles for establishing a community forest and how these would apply to a community forest tenure in British Columbia;
 10. Draft the characteristics of proposed community forest tenures. In British Columbia existing tenure arrangements are inadequate to optimally facilitate the establishment of community forestry as they were designed primarily for the industrial harvesting of old-growth timber. Community needs and concerns can vary from those of industry, and a community forest tenure - designed to address these needs and concerns is required.

RESEARCH METHODOLOGY

Research for the thesis involved a literature review, as well as the generation of new community forestry data by way of a national and a provincial mail-out survey, personal interviews and focus groups. Brief details are provided here by way of an overview, a more detailed explanation will follow in Chapter Five.

The provincial mail-out survey was funded by Forest Renewal British Columbia (FRBC) under the Research Portfolio and conducted with the cooperation of the Union of British Columbia Municipalities (UBCM). The survey was directed to the 179 community members of the UBCM and was used to determine the level of interest and awareness in community forestry in British Columbia.

The mail-out survey data was supplemented by sixteen personal interviews with a stratified

subset of the mail-out survey respondents. The purpose of the personal interviews was to obtain qualitative and more rich survey data using open-ended questions.

Focus groups were used to investigate community awareness and interest in community forestry, using the group dynamics of the focus group to obtain information. Three series of focus groups were carried out: 1) Communities without community forests; 2) Communities actively seeking a community forest; and 3) Communities currently with community forests (Districts of North Cowichan and Mission, City of Revelstoke).

A national mail-out survey was conducted to determine the level of national awareness and interest in community forestry. The purpose of this survey was to obtain background information about community forestry across Canada to provide some context for the state of community forestry in British Columbia. The survey was directed to the Minister of Forests or Natural Resources for each province and territory, and a survey was also sent to the federal government.

A literature search and interviews were carried out on current forest tenure arrangements in British Columbia and the rest of Canada to identify how they succeed or fail to facilitate community forestry. The concepts and theories of property rights, community development, community forestry, communities and resource planning and management were reviewed and studied. Numerous books, articles, papers and interviews were used to compile the information.

The history, experience and practices in European community forestry, particularly in Finland, Norway, and Sweden were researched and examined for transferable concepts or policies that could be applied to British Columbia. Three separate research trips (during the summers of 1994-96) were taken to Europe, particularly the Nordic Countries and Germany and one trip was made to Japan in 1997.

THESIS STRUCTURE

Chapter one provides the background for the research project and introduces the research

problem of an outdated tenure system that is not addressing community needs. The ten objectives of the thesis research are introduced and the methodology is discussed.

Chapter two provides a review and analysis of property rights, existing forest tenures, forest resource management and forest tenure holder behaviour (thesis objective one). A brief discussion of the evolution of the existing tenures provides an explanation of how and why they evolved, what they were designed to accomplish and what successes and failures have resulted. A review of the characteristics of current forest tenures is provided, with a particular focus on Tree Farm Licences, Forest Licences and Woodlot Licences (thesis objective two). Of particular interest are suitable tenure (property rights) arrangements which will provide communities with the necessary forest resource management incentives while holding them accountable to the general population of the province.

Chapter three addresses the concepts of community, culture, conflict and planning as interrelated concepts (thesis objective three) which are necessary prerequisites to a discussion of forest management and planning issues and community control. British Columbia's communities have experienced a great deal of conflict over the past decade, and a number of controversial provincial government initiatives such as the Commission on Resources and the Environment (CORE), Protected Areas Strategy (PAS) and the implementation of the Forest Practices Code (FPC) have had impacts on the forest sector that have led to some conflict.

Chapter four provides a review of community forestry found around the world that is characterized by great variety (thesis objective four). Swedish community forestry is focussed on because of the similarities in land area, population, and socio-economics to British Columbia. While community forestry is extensively practised in many other countries, particularly developing nations, they were not incorporated into the review because of the unnecessary additional complexity resulting from the wide range of cultural, geographic, environmental and socio-economic conditions. Results of a national survey (thesis objective five) are reviewed to provide insight to the level of awareness and

interest in, and history of, community forestry initiatives across Canada. The chapter concludes by addressing the role that community forestry can play in integrated planning (thesis objective six). The stages of forestry planning are discussed along with tenures in the context of government policy and market failures. Sustainable development and sustainable forestry are reviewed and special attention is paid to common property. The forms of community forestry that exist in Europe (municipal ownership or control) can be considered a variant of common property.

Chapter five discusses the methodology and results of a provincial mail-out survey on community forest issues (thesis objective seven). The results of the provincial survey provide information on the degree of awareness and understanding of the concepts of community forests in British Columbia. The personal interview results, of a stratified sample of mail-out survey respondents, are discussed as are the seven focus groups that were conducted with three stratified samples of respondent mail-out survey communities.

Chapter Six begins with an investigation of the issue of employing new or old tenure systems to facilitate community forestry in the British Columbia (thesis objective eight). A review of Dunster's twelve community forestry principles is conducted (thesis objective nine) to determine their relevance. Finally there is the drafting of the characteristics of proposed community forestry tenures for British Columbia (thesis objective ten).

Chapter seven summarizes the research findings, discusses research contributions and implications, limitations of the thesis research and its implications for future policy research.

CHAPTER II.

PROPERTY RIGHTS, TENURE AND FOREST RESOURCE MANAGEMENT

OVERVIEW OF CHAPTER

This chapter addresses the first two thesis objectives..

Thesis objective one is to compile a comprehensive review of the evolution of property rights, tenure and forest resource management in British Columbia and determine what role community forestry played in this. This chapter provides such a review and analysis, and reveals that while community forests have been discussed in the last three Royal Commissions and the Peel Commission, it has only been in the past five years that their potential role in forest management has received significant public and government attention.

Thesis objective two is to investigate the characteristics of forest tenures in British Columbia, with a particular focus on Tree Farm Licences, Forest Licences and Woodlot Licences. This chapter gives a brief discussion of the existing tenures, provides an explanation of how and why they evolved, what they were designed to accomplish and what successes and failures have resulted. The eleven elements of a tenure are reviewed with a view to using these elements to construct community forest tenures later in the thesis. The tenure characteristics of Tree Farm Licences, Forest Licences and Woodlot Licences are reviewed in detail. Ideally a community forest tenure would contain suitable tenure (property rights) arrangements which will provide communities with the necessary forest management incentives while holding them accountable not only to the local residents but also to the general population of the province.

FOREST TENURE.

Crown forest tenures are the means by which the provincial government transfers timber

harvesting rights and forest management responsibilities from the public to the private sector. Ideally, tenures are designed to ensure that public resource management and development objectives are achieved (Haley and Luckert 1990).

Collectively, national and international political and economic conditions, along with the tenures in place, can all influence the economic success of the tenure holder, as well as the scale and scope of the harvesting, silvicultural investments and wood processing activities.

PROPERTY RIGHTS AND FOREST RESOURCE MANAGEMENT IN BC

Economics addresses the question of resource scarcity. A fundamental assumption of economics is that resources (such as timber, water, minerals, etc.), are limited, or scarce, and that the wants of people are infinite. The limited resources and the unlimited wants lead to a negotiation of how to address the supply of and demand for the resource. There are two approaches to this negotiation process - conflict or cooperation. Societies develop conventions, social rules, norms or more formalized approaches, such as the law, to promote and enforce societal cooperation and to minimize or mitigate conflict. Bardhan (1989) argues,

Institutions are social rules, conventions and other elements of the structural framework for social interaction. This framework is taken for granted in much of mainstream economics, and is often pushed so much into the background that many of its central propositions are sometimes stated with a false air of institutional neutrality. We often apply the simple 'laws' of market supply and demand without being fully conscious of the complex of institutions on which contracts in actual markets crucially depend...(Bardhan 1989, 3).

Property rights are a social institution which establish the legal ownership to a benefits stream from a resource and specify any limitations as to how the resource can be used. van Kooten (1993) provides a very constrictive definition, arguing that the following four conditions have to be met for a property right to exist and for market transactions to occur efficiently,

1. Property rights must be completely specified. This implies that ownership [who is assigned the

rights] is clearly delineated, and that restrictions upon the rights of ownership and penalties for violation of those rights are specified...

2. A property right implies exclusive ownership. This is the right to determine who, if anyone, may use the property and under what conditions...
3. Property rights owners have the right to transfer their property...restrictions on the transfer of property lead to inefficiency - to market breakdown. It is important to recognize that rights are transferred as opposed to just material property.
4. Property rights must be effectively enforced. Without enforcement, a system of property rights cannot be considered useful. If enforcement is imperfect, as it always will be in the real world, then the expected value of penalties must exceed any possible gains a violator can hope to make (van Kooten 1993, 47-48).

This is a very narrow view of property rights, particularly part three - which appears to exclude common property and some other property arrangements. Others have argued that a less restrictive set of characteristics can be applied,

A property is a valuable characteristic, or a physical object, in which human beings have an interest (or interests). A property right, on the other hand, has the following components: (i) a claim (or claims) to the (pecuniary or non-pecuniary) benefits resulting from the valuable characteristic; (ii) a claimant (or claimants); (iii) social recognition and enforcement of the claim in favour of the claimant(s), who has (have) a right to exclude others from the property; and (iv) a description of contents of the claim, which includes the rights, responsibilities and obligations of the claimant(s), responsibilities and obligations of the excluded groups, and attenuations attached to the property right (Singh 1995, 31-32).

Property rights play a key role in market economies, in which individuals are driven to maximize their income (profit) or welfare (utility) through the exchange of goods and services. Prices are the values that are placed on the goods and services. Property rights underlie the value attributed to goods (e.g. value or potential uses of a piece of property) or service (e.g. certified Caterpillar service and repair depot).

Property rights and responsibilities in the form of tenure can influence the behaviour of the forestry firms (Luckert and Haley 1989). Tenures are the means by which the government assigns rights to the publicly owned forest land base,

Tenure defines rights to property. The provisions embodied in forest tenures can be seen as those which typically govern both parties in a landlord and tenant relationship. But instead of dealing with the usual kinds of landlord-tenant relation - residential or

business premises, or agricultural land - forest tenures deal with forests and forest land. They are instruments which define the rights and obligations of those who use the forests and those who own them (Ministry of Forests 1991, 1).

Not only the tenure defines the rights and obligations of those who use the forests. Federal and provincial regulation and legislation and administrative practices also have a role which is beyond the scope of this thesis. The tenure is not the entire forest policy, but rather an instrument or vehicle of forest policy, through which the government attempts to achieve a number of policy goals. Tenure vehicles have changed over time attempting to address ongoing or anticipated government goals or concerns.

Tenures are often one of the more public elements of forest policy, and address the very public issue of the rights and responsibilities of tenure holders. The Crown, as the forest land owner, attempts to achieve its goals of effective forest and environmental management and socio-economic development. The rights, responsibilities and obligations of the tenure holder are an attempt to ensure these goals are addressed. Tenure holders are granted certain property rights to the forests to enable them to profitably develop the resource, and while doing so, address the public goals.

With respect to the any natural resource industry, such as the forest sector, property rights play a key role,

Benefits accrue to forest tenure holders from the rights that they hold. Rights allow tenure holders to capture benefits in excess of the costs they bear in meeting their contractual obligations (Luckert and Haley, 1989).

A right can be either legally or justly founded. Legal rights have institutionalized executive and/or judicial systems to monitor and uphold them. Rights that are justly founded by custom or usage are not established or directly protected by the legal system. (ibid).

Responsibility refers to legal or moral accountability for conduct and obligations to something within one's power, control or management (Random House, 1973). The legal responsibilities of a forest tenure holder are the forest management other requirements (such as the appurtenant mill clause)

that they are obligated to meet in order to maintain their tenure or licence to harvest wood.

The moral responsibilities are not legally derived or driven and are proposed by other parties or assumed by the forest company or forest owner. This combination of rights and responsibilities will influence the behaviour and decision making of the tenure holder,

The legal rights created by tenure arrangements, together with the legal requirements and responsibilities imposed on the tenure holders, jointly determine the extent to which social objectives for public forest land can be met through private sector activities. However, the manner in which private forests are managed by the private sector may not accomplish the objectives that governments pursue on behalf of society (Luckert and Haley 1989, 182)

Property rights constitute some of the major policy instruments used by governments to regulate the private sector (Haley and Luckert 1990). This is especially relevant in the case of British Columbia, in which 92% of the province is crown provincial land, 7% is privately owned, and the remaining 1% is federal (Ministry of Crown Lands 1989).

Ownership of forested land is even more state dominated, with the Provincial Government owning 95%, the Federal Government owning 1%, and private ownership totalling 4% (Natural Resources Canada, Canadian Forest Service 1996). 85% of the province's land base is forested, with productive forest land in Timber Supply Areas and Tree Farm Licences occupying 45.6 million hectares or 60% of BC's land area (ibid).

While the majority of the forest land is publicly owned, all of the facilities for harvesting and processing timber are privately held and operated, leading to a potential for owner-user conflict. This separation of Crown forest land ownership from privately held forestry harvesting and/or processing operations has created a dichotomy of ownership and conflicting social preferences. One of the most important and longest standing policy questions facing governments throughout Canada has been how to effectively transfer timber harvesting rights and forest management responsibilities from the public to the private sector while simultaneously ensuring that public resource management and development

objectives are achieved (Haley and Luckert 1990). Public forest resource management and development objectives have evolved over time, and a brief summary of this evolution will now be presented.

EVOLUTION OF PUBLIC FOREST MANAGEMENT OBJECTIVES

First Nations and Early Settlement

The first settlers of British Columbia were the First Nations or Native Indians. Many non-natives hold a popular image of Native Indians that views them as 'Noble Savages', innocent of industrial society and 'living with nature' and not impacting it (Francis 1992). This lack of impact is largely a myth and there is a growing anthropological information base about what activities were carried out. The pre-Columbian landscape, that which existed before the arrival of the Europeans, was very much impacted by First Nations peoples, they,

...not only used their resources but manipulated, impacted and sometimes in a very real sense 'managed' their resources and environment. After Europeans appeared on the scene, most of the historical relationship between native and non-native people was characterized by competition for land and resources (Notzke 1994, 1).

...and their ancestors have harvested, managed and conserved the resources within their territories; governed themselves and the territories according to their laws, spiritual beliefs, and practices; maintained their institutions; exercised their authority; and protected the boundary of their lands (Cassidy 1992, 6).

Native resource management had well defined property rights which they claim to have never ceded to the crown. This was explicitly addressed in the case *Delgamuukw v. The Queen* (ibid). The definition of territories and harvesting and hunting rights extended across Canada and for the Mistassini Cree a modernized form of territory is still used for management purposes (Tanner, 1991). The influence of Native governance has had a profound impact on the evolution of North American democracy, and it is argued that the Iroquois played a key role in the evolution of American democracy (Johansen, 1982).

The European settlers in North America brought with them a number of societal beliefs, and one

of the core beliefs centred on the role of property rights. These core beliefs were embedded in laws, regulations and societal norms and institutions. The institutional arrangements are of particular interest,

Institutional arrangements, which here refer to the conventions that societies establish to define their members' relationships to resources, translate interests in resources into claims, and claims into property rights. These relationships in turn strongly affect resource-use patterns worldwide (Gibbs and Bromley 1989, 22).

At the time of early European settlement in British Columbia, the forest seemed to be eternal and much effort was spent in harvesting the trees to stimulate the economy as well as to convert some forested land into farmland (Godwin 1994). Between 1871 (when BC entered into confederation) and 1911 "the number of sawmills increased from 27 to 224...and employment from 393 to nearly 15,400" (Marchak 1983, 33).

This forty year period represented a time of great immigration with the population of British Columbia increasing 700% (ibid). A concerted effort was made by the colonies', and later provincial government, to encourage settlement and economic development. The principle policy tools employed by the governments were Crown land grants in the earliest years of settlement, and later by the granting of resource rights without alienating the land,

The principle of granting rights to harvest timber from Crown land, without alienating the title to the land itself, was introduced in a Land Ordinance issued in 1865 by the Governor of the Crown Colony of Vancouver Island. This was one year before the colony united with the Colony of (mainland) British Columbia, and six years before the British Columbia joined the Dominion of Canada as a province. Until then, rights to land and resources had been conveyed through outright grants; and while that method continued for several decades thereafter, retention of Crown ownership and provision only of rights to harvest the timber gradually became the cornerstone of the new province's forest policy (Pearse 1976, A1).

The Period 1865 - 1909

The 1865 Ordinance empowered colonial administrators to issue tenures known as Timber Leases to individuals or companies engaged in lumbering. The scale and scope of these Timber Leases were left to official discretion, and initially the Crown retained no financial interest in the timber (Pearse

1976). From 1865 to 1905, the period during which Timber Leases were issued, the government made a number of modifications to this form of tenure,

...new legislation imposed ground rents, maximum terms, royalties, and, for a time, requirements that lessees own and operate sawmills. Significantly, a legislative amendment passed in 1891 introduced cash bonus bidding for leases, a thread of policy which was woven into later tenure arrangements (Pearse 1976, 24).

Between 1865 and 1905, three other forms of tenure were devised. In 1888, Timber Licences started to be issued. They were limited to 1,000 acres each and were allocated on a first come first served basis. Designed to meet the needs of independent loggers, Timber Licences eventually became the most common of what were to be referred to as the 'Old Temporary Tenures' (Pearse 1976). In some areas where the quality of the trees was poor, Timber Licences were converted into Pulp Licences, which provided some financial relief from Crown charges. Between 1901 and 1903, the government issued a number of very large Pulp Leases, which were designed to attract investment into the pulp industry (ibid).

In 1883-84, a grant of 1.9 million acres of forested land on Vancouver Island was granted to support the construction of the Esquimalt and Nanaimo (E&N) Railway. This was some of the finest virgin timbered land in the province, and is one of the better known 'Crown Grants' that occurred in the early years of settlement. The E&N grant was eventually bought out by a number of individuals and companies, with Canadian Pacific's subsidiary Pacific Forest Products being the holder of a number of grants. A number of other large blocks of land were Crown granted in aid of railway construction, but the land reverted to the Crown with the failure of these enterprises (ibid).

The 'Railway Belt' grant of 14.5 million acres to the Dominion Government was made at the same time as the E&N grant, though this land was to support the completion of the transcontinental railroad through British Columbia. As part of the federal land settlement policy, the Dominion government issued 'Timber Berths', which were a forest tenures giving rights to cut the timber without

alienating the land from the Crown. These Timber Berth tenures carried royalty and rental obligations, and the holders were obliged to operate sawmills. The 'Railway Belt' was returned to the province in 1930 after almost 50 years under federal control. At the time of the return of this land, the province agreed to honour the outstanding Timber Berths. When Pearse wrote his Royal Commission Report in 1976, there were 105 outstanding Timber Berths covering 164 thousand acres, with each Timber Berth carrying renewable one year terms (ibid).

Timber and Pulp Leases, Timber and Pulp Licences and Timber Berths comprise what are commonly referred to as the 'Old Temporary Tenures'. These tenures have largely expired, and by 1976 only one-fifth of the original number remained covering an area of approximately 1.7 million acres (ibid). The forested areas assigned under these tenures is generally high quality virgin timber, and in land areas close to low-cost water and rail transportation routes on Vancouver Island, the lower coastal area and along the CPR mainline to the interior (ibid).

Each form of Old Temporary Tenure was designed to meet a particular need, but they all have three main elements in common. The tenures conferred rights to harvest the existing crop of original old-growth, and as this crop was removed, the tenures reverted back to the crown. Second, to maintain their tenure rights, the tenure holders had to pay annual rents (for timber and pulp leases) or renewal fees (for timber and pulp licences and berths). The Crown also obtained royalties from the timber harvested from the Old Temporary Tenures, with the royalty value determined by harvested volume, species, grade and region (ibid). Third, since 1907, timber cut from the Old Temporary Tenure areas has been subjected to provincial export restrictions (ibid). Finally, the Old Temporary Tenures were not able to be transferred without Ministerial consent (ibid).

Concern over the alienation of Crown timber lands led to a government decision in 1896 to stop the Crown granting of timberland with all such land remaining with the Crown. Further concerns over lost economic opportunities and employment led to the *Timber Manufacturing Act* of March 12, 1906.

This legislation required that all timber cut on Crown land had to be manufactured in British Columbia (Shelford 1993). This essentially stopped the export of raw logs except for those permitted to be exported under a ministerial permit (ibid). This remains an important part of BC forest policy today.

Timber speculation began to increase around 1905. Timber in the United States was being rapidly exploited and loggers began to travel farther north in search of virgin stands. Concerns about exhaustion of the eastern pine forests, the construction of the Panama Canal, and strong lumber markets drove this exploitation of west coast forests (Pearse 1989). Amendments were made to Timber Licences (also referred to as Special Timber Licences) to make them more attractive to speculators,

The new licences did not require the licensee to be engaged in logging, to operate a mill, or to cut the timber within any particular time, and until they were logged they were renewable without limit. Meanwhile, the government would receive an annual payment, but the timber would have to be paid for, through royalties which were to be varied from time to time, only when it was cut. Finally, and importantly, the licences were freely transferable (Pearse 1989, 13).

The use of these new Timber Licences, which were renewable annually and completely and freely transferable, led to a large increase in timber staking activity. Over a four year period, staked claims rose from 1,500 to over 15,000, a ten-fold increase. While the government welcomed the revenue, concerns grew about the timber commitments being made (Shelford 1993).

By 1907, approximately 10 million acres of Crown forest land had become committed under the four forms of forest tenure, with 90% of this being under Timber Licences. The government believed that the volume of timber under tenure would satisfy industry requirements for years, and suspended any further tenure allocations (Pearse 1976). Furthermore, outright land grants were stopped completely in 1907 as a result of public concerns over land alienation and that all the best Crown timber would be fully committed (Shelford 1993).

Fulton Commission, 1909-1910

There were numerous small businesses engaged in both the harvesting and processing of the logs, and while many of the businesses were locally owned and staffed, this was by no means always the case,

There were hundreds of 'gypos' operating in the woods, and they came from all parts of the continent. Americans came in, logged valleys, left denuded lands, and returned with the wealth from their sales of timber to their homes. The history and the folklore of the industry is replete with countless stories of harsh bosses, bad working conditions, a complete lack of regard for the environment or the future forest as small businessmen competed to fell record quantities of timber. The forest seemed then to be endless, and for a time so seemed the markets (Marchak 1983, 33).

The forest was not endless, and the markets were certainly not. Growing public concern over the state of the forests and the problems prevalent throughout the forest industry were driven by strong memories of an earlier period when hysteria over another public resource had created significant social, economic and political changes. The timber staking was similar to the earlier gold rush that,

...had precipitated profound political changes in the region half a century earlier. Alarmed by these developments, the government appointed its first Royal Commission of Inquiry into forest policy, which produced the Fulton Report of 1910. With the meagre information available to them, the Commissioners estimated that the province had already alienated two-thirds of its merchantable timber, and after concluding that this would meet the needs of the industry for several decades they prudently recommended that the remainder be held in reserve. To meet minor and special needs, they proposed competitive, short-term timber sales, variants of which are among the most important tenure forms in use today. Many other significant changes resulted from the recommendations of this influential Commission, including the passing of the first Forest Act in 1912, which provided for a provincial Forest Service and embodied the first significant efforts toward forest protection and management (Pearse 1976, 3).

The Fulton Commission and its report represented a remarkable change in attitude towards the forests. Until the establishment of the Forest Service there was very little comprehension of the extent or status of the resource. Fulton was the first to recognize the need for a good forest inventory as a basis for responsible management. He also suggested that forest revenue should be treated as,

...capital that should be used to manage fire protection, conservation, and the replanting of areas not quickly stocked by natural regeneration. This important recommendation

was never accepted. Successive governments have robbed the forest estate and used the revenue for other programs without a twinge of shame at not leaving sufficient money to ensure healthy forests for future generations (Shelford 1993, 25).

It was as if everyone believed that the forests truly would last forever and there was no need to pay any heed to what was happening out in the woods,

In Canada, unfortunately, conjecture has not yet become tinged with the same hues of certainty. Forest statistics have been, in the immediate past, the wildest guesswork, and even recent revision by the small forest services that have struggled into existence is based upon very little information (Fulton 1910, D14).

BC's First Forestry Act, 1912

The Fulton Report recommendations were well received and many were incorporated into the first *Department of Forests Act*, (hereafter referred to as the *Forest Act*) passed in 1912 (Pearse 1976). The *Forest Act* created the Forest Service and also introduced new licensing arrangements, with the most important being the creation of the Timber Sale Licence (ibid). Areas of timber that were to be sold were surveyed, cruised and the timber was classified as to quality, species, etc. Timber sales were advertised in the *British Columbia Gazette* for a minimum of three months and competitive bids were made by way of sealed tenders accompanied by a deposit of at least 10% of the bid price. Pearse notes,

In addition to the standard rental and royalty, a successful applicant was obliged to pay to the Crown the appraised upset price determined by the Forest Service and any bonus he bid above the upset price, as well as the costs of advertising, cruising, and surveying. The Timber Sale Licence system grew in importance in the years following 1912 because it was the only means available for disposing of new rights to Crown timber (other than Hand Loggers' Licences). Its use extended well beyond a major device for serving the needs of an expanding forest industry. Until sustained yield policies were introduced in 1948 the Forest Service processed Timber Sale Licences almost without restriction in response to applications, and this form of tenure in its various forms has since become the most important means of conveying rights to Crown timber (Pearse 1976, A7).

The Timber Sale Licence introduced another legislative change to forestry in that each licence was subject to special conditions which addressed proper harvesting, protection and forestry practices.

The terms of the Timber Sale Licences varied, but the most common term was for two or three years (Pearse 1989).

The Period 1912 - 1942

Between 1912 and amendments to the *Forest Act* in 1947, timber was cut from much of the land that was alienated prior to the Fulton Commission and the majority of this land reverted back to the Crown through timber removal, default on taxes and rentals or for other reasons (Pearse 1976). During the next 35 years, which saw two world wars and the Great Depression, there was little change in tenure policy.

By the middle of the 1940s, the only significant method for obtaining new timber rights were through the short-term Timber Sale Licences, a system that was in wide-spread use. By 1945, the Timber Sale Licences accounted for over half of the interior lumber harvested and approximately 25% of the entire provincial harvest (Pearse 1989).

While the government had prohibited the transfer of forest land into private ownership, there was no legal way to regulate or restrict the annual timber harvest which had increased significantly. There was also no legislation addressing the restoration and maintenance of the productive capability of logged off lands to ensure a sustainable forest industry, H.R. MacMillan, then one of BC's most influential forest industry executives believed that there was little or no rational forest management in either Canada or British Columbia (Drushka 1995).

First Sloan Royal Commission On Forestry, 1943 - 1945

Industry found the system frustrating and considered it inadequate to provide the secure feedstock supply that they required to invest in new processing facilities. This along with concerns about the unbalanced pattern of timber harvesting and inadequate silviculture and forest management (Pearse

1976) led to the first Sloan Royal Commission on Forestry in 1943-45.

The first Sloan Commission is noted for significant tenure reform and incorporating the concept of Sustained Yield into forest management. Sloan believed that the,

...public interest required such a policy in order to gain maximum advantage from the province's forest resources, and to provide stability to the industry and the communities which depended upon them. Forest land, he [Sloan] proposed, should be managed to produce timber in perpetuity (Pearse 1976, A9).

To achieve this, Sloan proposed two new types of sustained yield management units. The 'Private Working Circle' enabled owners of Crown-granted land and old temporary tenures to combine their holdings to which would be added additional Crown timber land. This would, theoretically, create a coherent management unit that would be subject to sustained yield management by industry, with the Forest Service ensuring that public concerns and safeguards were addressed.

The second sustained yield management unit was a 'Public Working Circle' that incorporated all provincial crown forest lands not taken up in the Private Working Circles, with the land being managed by the Forest Service and serving the needs of the smaller and unintegrated forest enterprises (Pearse 1976). The government incorporated most of Sloan's recommendations in amendments to the *Forest Act* passed in 1947 (Pearse 1976).

It is interesting to note that Sloan was made aware of timber being harvested in one part of the province and processed elsewhere, resulting in the loss of potential processing employment in communities close to the harvesting area. Such an arrangement had been cunningly devised by MacMillan in order to access some valuable timber near Shawnigan Lake on Vancouver Island and to avoid keeping open the mill that was located there. This was one of the symptoms of an industry that was becoming increasingly more concentrated (Drushka 1995).

Beginning in 1942 and throughout the first Sloan Commission, C.D. Orchard, the province's

Chief Forester, had an agenda to bring about sweeping changes to the provincial Forest Act (Drushka 1995). Orchard proposed a tenure called a Forest Management Licence (FML), which would see the land still owned by the Crown but the timber harvesting rights being sold to a forestry company which would also be subject to reforestation and management obligations. The intent was to open up large tracts of forest land to the companies without either alienating the land from the Crown or having the inadequate reforestation and forestry management practices of the past continue to be the norm.

The retention of public ownership of the forest land was a guiding principle in the new forest tenure policy. Orchard emphasized this in a presentation to Sloan in January 1945,

It might be argued theoretically that it is the function of the forester to grow the forest crop and that there his interest comes to an end; that harvesting and land tenure need not concern him. Practically, these three fundamentals - land tenure, forest culture, and harvesting - cannot be divorced. You can afford to harvest forest crops from lands held under a one or five or ten-year tenure, but you cannot afford to grow overlapping crops that will take from 50 to 150 years to mature on lands held under anything less than some form of perpetual tenure. How forest lands shall be held, who shall own them, who is to harvest the crop, and how the crop is to be harvested, therefore, are questions of primary importance in any intelligent forest program...the policy of public ownership of forest lands which has obtained in British Columbia up to the present is wise and should be continued (Mahood and Drushka 1990, 107-108).

In his Royal Commission report, Sloan made reference to the debate of private versus public forest land ownership,

The Licence area is a Tree Farm; who owns it, who manages it, now or in the future, is of secondary importance, provided it is managed with ability, interest, and imagination (Mahood and Drushka 1990, 108).

It is unlikely that Sloan anticipated the concentration of corporate control over the FMLs. In his report he makes reference many times to the importance of the forest being managed to address community concerns and the dangers of over harvesting,

Areas of reverted land situated in or near settled communities could also be managed on a sustained-yield basis as public working circles by municipal authorities, subject to regulations designed to prevent improvident future management and transactions in relation thereto (Sloan 1945, Q147).

Ghost towns in the Interior bear distressing and silent witness to the past policy of too many mills cutting out areas that could have supported in perpetuity, on a system of planned management, the potential capacity of probably half of them (Sloan 1945, Q148).

Sloan was sensitive to the growing public concerns of forest industry concentration and control of the resource, with MacMillan Company's controversial purchase of the Victoria Lumber and Manufacturing Company in 1944 undoubtedly giving him pause to think. He directly addressed this in his final public session,

The position [MacMillan takes] is that this is our timber, and we propose to do what we like with it. There is no law in the country to prevent me from buying a mill, closing it down, and disposing of my timber as I see fit. That is the privilege the buyer has. Now should the present state of the law be continued from the point of view of an economic policy is a question including many factors. Should a small community suffer because of modern trends concentrating industries in large cities - that is something to be considered (Drushka 1995, 246).

Sloan also raised concerns over very large scale or regional forest control in his report. These concerns anticipated the potential for conflict between regional and local forest planning concerns and needs, and the potential for local needs not to be met within a system of forest management and control that was ultimately driven by regional needs,

I cannot subscribe, with respect, to the suggestion that the entire coast be treated as one working-circle and that the over-all cut be kept within the yearly or periodic increment of that production unit then the whole Coast will be on a sustained-yield basis. If, on the other hand, individual working circles are over cut the Coast will not be on a sustained-yield basis notwithstanding the fact that the over-all Coast production remains within the total Coast increment (Sloan 1945, Q148).

Mahood and Drushka (1990) argue that Sloan believed that the practice of long-term dedicated forestry found in the private forestry of Europe and the United States would also develop on public land held under tenure.

H.R. MacMillan and a number of private foresters opposed Orchard's scheme because of the power over private forestry companies that it provided to the government and especially its Chief Forester C.D. Orchard. There was fear that the politicians and bureaucrats would not administer the

forests properly (Drushka 1995). This fear appears to have been well founded, as in early January 1947,

American Celanese, a New York pulp company with no prior interest in BC, had received a reserve of Timber, for a huge Forest Management Licence in Kenney's [Forest Minister] riding near Prince Rupert. Approval had come from Kenney, apparently with Orchard's agreement, even though the amendment to create the licences had not yet been tabled in the Legislature. Placing the area under reserve prevented anyone else from obtaining timber rights in the area until an FML was granted or refused. In late January, the Celanese group was back in Victoria, this time accompanied by Bob Filberg from Canadian Western, demanding another reserve on prime timber lands on the islands in Johnstone Strait, between northern Vancouver Island and the mainland. The timber in this area was of critical importance to market loggers and the independent mills to whom they sold. The delegation was turned down, but Filberg later returned with another US company, Crown Willamette, and was granted a reserve on the area (Drushka 1995, 277-78).

1947 Forest Act

On April 3, 1947 the amendment to the *Forest Act* was passed and Forest Management Licences became the only means by which the forest companies could enter into management arrangements on Crown Land and access the Private Working Circles.

In 1948, an amendment was made to the *Forest Act* to introduce the Farm Woodlot Licence. This forest tenure was to provide sufficient crown forest land to farmers to yield a maximum of ten thousand cubic feet per year, including that timber harvested from the farmer's private land. The licence was intended to provide timber for winter harvesting employment to the farmers and to encourage management of their timber lands. The licence was not transferable and was subject to stumpage. It was a good idea which did not prove to effectively work in practice (Ainscough, 1974).

The Period 1948 - 1955

In time, FMLs were to be known as Tree Farm Licences (TFLs). Initially the FML/TFLs were given perpetual terms, to reflect the belief that a long term tenure was essential to provide an incentive for forest management. Those issued after 1956 (Second Sloan Commission) were given 21 year terms

(Ministry of Forests 1991). Following the Sloan Commission, the forest companies immediately began to submit applications and to begin the process of lobbying and jockeying for FML awards - MacMillan, a critic of the FML system had no choice but to seek awards of the tenures he disagreed with (Drushka 1995). Later that year,

MacMillan made a futile attempt to convince Orchard to establish some clear principles for allocating the licences, to replace the arbitrary procedures by which the minister of forests awarded them. It was unclear, for instance, whether more than one application would be considered for a FML on an area placed under reserve (Drushka 1995, 279).

The award of Forest Management Licences appeared to have been a fairly arbitrary and controversial procedure,

Applications submitted to the Minister were advertised, and sometimes public hearings were held, but the legislation gave unqualified discretion to the Minister to decide how many licences were to be issued, what size they would be, and which of competing applicants would be successful. Although the Crown lands committed under these licences would otherwise have been available for development under Timber Sale Licences, there was no provision for competition for these allocations. Because there were many conflicting applications and no clear criteria governed Ministerial discretion, awards sometimes generated a good deal of criticism from unsuccessful applicants as well as from the independent logging industry which was concerned about its narrowing opportunities to acquire harvesting rights (Pearse 1976, A10-A11).

In his 1945 report, Sloan recommended a follow-up Commission in ten years, to which he was subsequently appointed in 1955. In the ten years between the two Sloan Commissions the government had awarded 23 Forest Management Licences, given preliminary approval to 18 and had received applications for a further 28 (Pearse 1976). By 1955, Orchard's and Sloan's visions of a few hundred modestly sized FMLs had not transpired, and there existed a handful of some very large licences, including in some cases land reserved in Public Working Circles that was meant to be managed by the Forest Service to serve the needs of small operators and unintegrated forestry companies (Drushka 1995).

Community Forests In The Districts Of North Cowichan And Mission

Community forestry, while addressed in the First Sloan Commission, remained a relatively unimportant tenure option, with only two communities, the District of Mission and District of North Cowichan, actively pursuing community forests. Mission had a thousand hectares of forested land which in the 1930's had reverted to the community by tax defaults. To this base, additional crown land was sought,

Around 1948, revisions were made to the Municipal Act in BC which allowed the formation of this land into the Mission Municipal Forest Reserve. Starting in 1946, various representations were made to the BC government that Crown forest land within the municipality be turned over to Mission to be managed along with the municipal land. In 1954, after earlier denials by the province, an agreement in principle was reached to turn over this Crown forest land for Mission to manage. Following submission of an appropriate Working Plan, Tree Farm Licence 26 (known as a Forest Management Agreement then) was issued to the district of Mission in 1958 (Allan and Frank 1994, 721).

The District of North Cowichan did not pursue a Crown forest tenure - perhaps given their larger land holdings than Mission. In June 1946, the District of North Cowichan incorporated six blocks of municipally owned forested land, totalling 4,800 ha, into a forest reserve under a by-law passed by the District Council. This 4,800 ha of forested land had reverted back to the community as a result of non-payment of taxes during the 1930's and early 1940's (Allan and Frank 1994).

The Second Sloan Royal Commission on Forestry, 1955 - 1956

The second Sloan Commission ran from 1955-56 and produced a report in 1956 that addressed primarily administrative concerns. While it was longer than the report of a decade earlier, its recommendations were not nearly as far-reaching (Pearse 1976).

In his second Royal Commission, Sloan continued to support the FML/TFL tenure type. He was harshly critical of the more than two million acres of forest land that had been cut down and left in a Not Satisfactorily Restocked (NSR) state, and noted that most of this derived from Timber Sales

administered by the Forest Service, that carried no reforestation requirement. As Fulton had in the first Royal Commission, Sloan made strong recommendations that all cut over forest land be restocked and that young growth be protected from fire (Shelford 1993).

Sloan was also growing increasingly aware of the corporate concentration and was cognizant of the importance of competition in the industry in order to determine the true value of the forests (Shelford 1993). This indicated a growing awareness of how fewer companies were controlling a larger volume of the harvest and was to be a concern that Pearse addressed in his Royal Commission in 1974-76.

Sloan arguably contributed to the corporate concentration through the creation of the Private Working Circle to which the larger and integrated companies could contribute their private and Old Temporary Tenure Land that would be combined with additional Crown land to create a sustained yield management unit. The non-integrated mills and independent loggers did not have the land base (either private or through tenure) to be eligible to access this additional Crown land. Similarly, the appurtenant mill clause, requiring a mill for processing the timber harvesting off an FML/TFL, was not something that the independent operator could provide in order to be awarded an FML.

It was during the second Sloan Commission that R.W. Sommers, Minister of Forests, was first accused of accepting bribes in the award of licences - particularly in the award of FML # 22 to BC Forest Products (Garner 1991). Sommers and another man by the name of Wilson Gray were later to be sentenced to five years in jail (Drushka 1995).

The Period 1956 - 1974

In the decade following the Second Sloan Report, the government awarded twenty more Tree Farm Licences. Since that time, a number of them have amalgamated.

Initially, in fact for the twenty years following the second Sloan Royal Commission on Forestry,

timber from the Public Working Circles (or Public Sustained Yield Units (PSYU) as they were later to be called) was accessed by Timber Sale Licences. The Timber Sale Harvesting Licence (TSHL), which evolved from the Timber Sale Licence, was introduced in the mid-1960s. This was a volume based licence with a specified annual harvest rate from within a designated PSYU. The first TSHLs carried terms of 21 years, but after the first 15 TSHLs had been issued, a term of ten years became the standard (Ministry of Forests 1991). The TSHL was to evolve into the modern day Forest Licence.

In the 1960s another tenure called Pulpwood Harvesting Area Agreements (PHAs) were introduced (Pearse 1976, Marchak 1983). The first PHA was signed in 1962 (Pearse 1976). These were designed to supply pulp mills with pulp logs. PHAs gave the holder the right to harvest pulpwood from within its boundaries which included several PSYUs. In fact, the right was rarely, if ever exercised, due to an adequate supply of sawmill residues. There were efficiencies that could be realized by having all logs (saw and pulp) harvested by the same operators, with the sawlogs recovering any dimensional wood and all residue and chips being directed to the pulp mills - the 'chip direction' policy (Ministry of Forests 1991).

The Royal Commission On Forest Resources (Pearse Commission), 1974 - 1976

Concerns about forest tenures and their policy implications and the ability of the forest service to administer an ambiguous and confusing public policy (Marchak 1983), along with concerns about the state of the forests and perceived timber shortages were some of the issues that led to the establishment of the Royal Commission on Forest Resources in 1974. It is noteworthy that the state of the forests and perceived timber shortages were the same concerns that led to the previous three Royal Commissions being held and would indeed be the primary reasons for the future Peel Commission.

Peter Pearse, a University of British Columbia economics professor was the sole commissioner for what was to be called the Pearse Commission. This two year commission recommended major

revisions to the tenure system and addressed a number of issues including, but not limited to:

- the emergence of problems related to the protection of the natural environment;
- concerns about continuing corporate concentration in the forest industry;
- the need to anticipate the transition from old growth to second growth and deal with the 'Fall Down Effect';
- the need to address the increasing governmental and public interest in the development of the forest industry;
- the growing need for an expert and efficient public forest administration;
- the need to improve the forest tenures that had successfully established the forest infrastructure and which now needed to be modified to address more comprehensive forestry and not just the conversion of old growth into managed second growth;
- the need to modify forest tenures to address 'non-industrial values' (Pearse 1976).

The Pearse Commission made a number of recommendations to address tenure reform and there was obvious interest and support in smaller tenures and community forestry. Pearse recognized the power of tenures,

The government's freedom to choose among alternative forms of rights offers one of the most powerful means of shaping the development of the forest industry. Because I want to emphasize the impact of tenure arrangements on the structure of the industry, and hence the need for a deliberate policy to achieve the public objectives, I offer some general suggestions for selection among the various licensing arrangements... (Pearse 1976, 115).

Following the submission of the Commission report in 1976, a Forest Policy Advisory Committee was struck to deal with implementation of the recommendations. The NDP government lost the election that year and the Social Credit Government failed to implement most of Pearse's recommendations.

The 1978 Forest Act

A number of forestry practice recommendations were adopted leading to new forest and range legislation in 1978 as well as a new *Ministry of Forests Act, 1978* (Ministry of Forests 1991). This Act established explicit goals for the Ministry of Forests and recognized for the first time, forest values other than timber and range as elements of the ministry's mandate (Haley and Luckert 1998). There were also

decisions made that flew in the face of the Pearse recommendations - such as not amalgamating the Wildlife Branch into the Forest Service.

The new legislation brought substantial changes to existing licence agreements and additional new licencing agreements were introduced (Robinson 1995). The early TFLs lost their perpetual term, and all were replaced without competition (ibid). 'Evergreen' replacement provisions were introduced for Tree Farm Licences. This involved updated conditions being offered to the TFL holder every ten years (later changed to five years), and if they chose to accept the new conditions, the licence was replaced with another 25 year term. If the TFL holder did not accept the new conditions, or chose not to apply for replacement, they could retain the TFL under the original terms for the balance of the 15 years remaining in the term, at which point the licence expired.

The PSYUs (originally called Public Working Circles) were reorganized and renamed Timber Supply Areas (TSAs), of which there are now 35 in the province. An annual allowable cut was assigned to each and apportioned to the various types of new licences on a prorated basis determined by the former licence agreements (Ministry of Forests 1991).

A number of new licences were introduced to address harvesting in the TSAs, including:

- 1) Forest Licences which replaced the Timber Sales Harvesting Licences and Timber Sales Licences. It should be noted that the Forest Licence also replaced the timber sale licences that had been earlier awarded as 'Third Band Sales' whose purpose was to improve timber utilization;
- 2) Pulpwood Agreements replaced the Pulpwood Harvesting Area agreements;
- 3) Timber Licences replaced the Old Temporary Tenures that had remained in good standing, many for over 90 years;
- 4) Woodlot Licences, replaced the Farm Woodlot Licences and enabled a broader spectrum of entrepreneurs to combine private land with additional crown land in order to have a larger and theoretically more economic forest base to manage. Woodlots can be awarded without a private land component. The contribution of private land is one of the three main factors considered in the awarding of a Woodlot Licence, the other two being the management intent and the skill and experience of the

applicant.¹¹ Restricted to 400 ha on the coast and 600 ha in the interior, the Woodlot Licence is essentially a miniature TFL, but with different conditions for award and with different policy objectives;

5) The Small Business Forest Enterprise Program (SBFEP) was established. The objective was that a portion of the allowable cut would be competitively awarded to two classes of non-quota holders (operators with no access to long-term crown timber supplies), those with sawmills and those without (Robinson 1995). Today the SBFEP accounts for approximately 15% of the provincial AAC (Haley and Luckert, 1998).

Following the passage of the new *Forest Act* in 1978, the forest industry in British Columbia continued to expand and the provincial Annual Allowable Cut continued to increase, driven by large increases in the interior cut (Travers 1993). Poor economic conditions in the early 80's led to a government decision to introduce 'sympathetic administration' in which standards were relaxed and sometimes ignored in order to foster a more favourable operating climate. This resulted in reduced forest management quality and from 1982 to 1987, it cost the government \$1.1 billion more to administer the forests than it received in revenue (Garner 1991, Travers 1993).

Forestry And Sustainable Development

Sustainable development became a public consideration with the publishing of *Our Common Future* in 1986. The World Commission on Environment and Development was set up as an independent body by the United Nations in 1983. The commission's role was to re-examine the critical environment and development problems on earth and to formulate realistic strategies to attain the development goals without creating unacceptable environmental tradeoffs not only to the current planetary residents but also future generations. Forestry, being a renewable resource, came under much public scrutiny. There was increased public concern and discussion about the relationship between current forest management and future forestry opportunities. There was increased understanding of the issues of access, cost and benefits,

¹¹Waters 1997

...physical sustainability cannot be secured unless development policies pay attention to such considerations as changes in access to resources and in the distribution of costs and benefits. Even the narrow notion of physical sustainability implies a concern for social equity between generations, a concern that must logically be extended to equity within each generation (The World Commission on Environment and Development 1986, 43).

There was also concern about developmental impacts on ecosystem complexity,

Development tends to simplify ecosystems and to reduce their diversity of species. And species, once extinct, are not renewable. The loss of plant and animal species can greatly limit the options of future generations; so sustainable development requires the conservation of plant and animal species (The World Commission on Environment and Development 1986, 46).

Widespread discussion about how sustained yield did not equate to sustainable development occurred and a paradigm shift in forestry thinking began,

One way to look at the relationship between biodiversity and sustainability is that biodiversity provides enduring options for sustainable management. As Leopold (1949) noted, "to keep every cog and wheel is the first precaution of intelligent tinkering." Particularly when the future is unpredictable, as it surely is now with human population growth, irrational energy policies, climate change, ozone depletion, and other global problems, it makes sense to maintain as many options as possible. A landscape with a great diversity of habitats, species and genotypes is likely to be more adaptable to change than is a monoculture. A most important question we must ask with regard to sustainability is what do we wish to sustain and why? This is essentially an issue of goal setting. We need to pay more attention to where we wish to head with our land management programs and to what values are behind those objectives. If our goal is only to maintain an approximately even flow of wood products, then we have a seemingly easier task than if we have to worry about sustaining the food webs and nutrient cycles that maintain soil productivity. Of course, in the long run we must think about maintaining soils and ecological processes if we want a sustained yield of wood products. Maintaining watershed integrity may require even more restraint (Noss 1993, 19).

The softwood tariff dispute with the United States, with its origins in the early 1960s, was ongoing at this time (Mitchell-Banks 1986). Historically, the Council of Forest Industries (COFI) had served as the negotiator for the British Columbia forest industry, but this time the provincial government decided to usurp their role and enter into negotiations directly. As this was an international matter, the Canadian government were also involved. In 1986, a Memorandum of Understanding was agreed to,

which saw Canada agreeing to collect a 15 percent export tax, with the tax being collected until the provinces increased their stumpage by an equivalent amount (Robinson 1995).

The provinces did adjust their stumpage systems to collect an equivalent amount in lieu of the duty, and there was an increasing demand to simplify the complex stumpage appraisal system. The provincial government made an amendment to the *Forest Act* which saw the Comparative Value Timber Pricing System replacing the Residual Value System for stumpage appraisals (Sterling Wood Group Inc. 1990). Another *Forest Act* amendment transferred the cost of reforestation and basic forestry¹² onto the major licensees (TFLs and FLs). This was a government policy to place greater responsibility on industry for returning logged forest land to forest production (ibid).

In 1987 and 1988, the allowable cut of all major licences was reduced by 5% with the volume transferred to the SBFEP. In 1988, a licence transfer penalty was introduced which took back 5% of the volume of most licences, each time the control of these licences changed, with the take back volume being directed toward the SBFEP (Robinson 1995).

In 1989, the Canadian Forest Service commissioned Environics Research Group Limited to conduct a public opinion survey on forestry in Canada. Numerous questions were asked of the public, with all provinces, various community sizes and income groups being interviewed. One of the strongest results was that 51% of the Canadian public felt that the harvesting rate was too high, with the BC public response being slightly higher at 52% (Environics Research Group Limited 1989).

The Canadian Council of Forest Ministers held a National Forum on "Sustainable Development

¹²Basic Forestry involves the the minimum amount of silviculture required to ensure the renewal of the timber crop to maintain long-run sustained yields. This involves planting seedlings or ensuring that natural regeneration attains the free-to-grow stage at which point the new crop becomes the responsibility of the Ministry of Forests. At times some brushing and weeding activity is required to ensure that the seedlings reach the desired height within the license green-up (restocked) time requirements.

and Forest Management" in February 1990. The Honourable Charles W. MacNeil, Chairman of the Canadian Council of Forest Ministers provided the opening address, and he discussed the purpose of the forum,

Our objective during this forum, is to encourage an exchange of views and develop a consensus on what sustainable development means for forest management, and to outline an action course for its achievement. To arrive at that consensus, a wide range of issues will be discussed (MacNeil 1990, 3).

Numerous speakers addressed the concept of sustainable development, but the discussion was characterized more by questions than by answers. The closing remarks of the Honourable Frank Oberle, Minister of Forestry for Canada are telling,

I admit we have a long way to go before we achieve applied sustainable forest development, whatever that means. But the process has begun (Oberle 1990, 45).

The Forest Resource (Peel) Commission, 1989 - 1992

Growing public concern over the state of the forests, the concentration of harvesting rights and processing facilities in the hands of the major forest companies and a move by the Government in 1989 to convert Forest Licences into Tree Farm Licences led to a strong public backlash. There was growing discontent with the Ministry of Forests and the Honourable Dave Parker, then Forest Minister, suggested the establishment of a permanent Forest Resource Commission. The Peel Commission was established in 1989, and while it only lasted three years (being struck after the NDP were re-elected in 1992), it addressed a number of issues including, but not limited to (Forest Resources Commission 1991):

- integrated land management for all users;
- native land claims (it was clear that the people felt there could be no land-use strategies drafted without resolution of these problems);
- the need for public participation and local input in joint management decisions;
- the need for better inventory for all forest users;
- concern for the environment;
- education not keeping up to the realities of life and needs for the future;
- concern for large companies dominating the industry;

- a desire for smaller clear cuts or none at all;
- wilderness;
- restrict the use of herbicides;
- more Woodlots;
- more community forests and other new alternative tenures
- an increased level of coordinated land use planning
- more logging determined by silviculture concerns.

The Peel Commission made 108 recommendations (Forest Resources Commission 1991). The most important of these resulted in:

1. the establishment of the Commission on Resources and Environment (CORE) and its attendant legislation that addressed coordinated land use planning;
2. the implementation of the Timber Supply Review (TSR) process that inventoried all of BC's Crown forest land;
3. the implementation of the Forest Practices Code (FPC) and its attendant legislation;
4. the implementation of the Protected Areas Strategy (PAS);
5. the establishment of Competitive Sort (Log) Yards to determine the value of logs.

The Peel Commission made a number of specific recommendations regarding tenure reform, which though not implemented presented a strong argument for small tenures and community involvement. The recommendations addressing smaller tenures and community involvement were as follows:

- Recommendation 4: "that public involvement be set out in legislation and cover all aspects of the planning process" (Forest Resources Commission 1991, 10);
- Recommendation 46: "the Allowable Annual Cut freed up in (45) [refers to recommendation 45 which recommends that manufacturing facility owners only have 50% of their fibre requirements met under tenure] either be managed by the Forest Resources Corporation or reallocated to small area-based tenures managed by communities, Native Bands and Woodlot operators, etc. These small tenures will be restricted to those who do not own or control processing facilities" (ibid, 19-20);
- Recommendation 68: "category 1 and 2 of the small business program be phased out as the new tenure system is introduced. As wood then becomes available, it should be reallocated to small, non-processing area-based tenures managed by Woodlot operators, communities, Native Bands, etc. or managed by the Forest Resources Corporation as appropriate" (ibid, 25);
- Recommendation 108: "all major areas where public participation is required in the planning and management of forest land based activities be enshrined in legislation" (ibid, 40).

The Peel Commission findings were distributed throughout the province and subject to review

and commentary. The proposals for comprehensive land use planning and improved inventories were less controversial than the establishment of a Crown corporation to manage the province's commercial forests (Haley and Leitch 1992).

The greatest concern regarding the Commission and its findings is that it lacked the cohesive force of clearly defined goals for the provincial forests and related industries, and the absence of clear goals and strategies for the development of the province's forest products manufacturing sector (ibid, 55).

Forest Licences Awarded to Communities, 1995 - 1996

The BC government, while appearing to renege on promises of tenure reform made in 1995¹³, are taking some steps to address the public interest in community forests. There have been a number of announcements of non-replaceable Timber Licences targeted for communities, with one involving approximately 80,000 cubic metres of reserve wood that was made available for two community forest licences and replaceable forest licences to generate employment within the Kootenay Lake Timber Supply Area (TSA) (*Creston Valley Advance* [Creston, BC], 2 January, 1996).

In September 1996, a Memorandum of Understanding was signed between the Islands Community Stability Initiative (ICSI) and BC Ministry of Forests in which a volume of wood was committed to be redirected towards a community tenure(s) on the Queen Charlotte Islands (ICSI and BC Ministry of Forests, 1996).

Details on existing forests (both areas and timber volumes) managed by communities can be found in Appendix A.

¹³Petter 1995

Community Forest Initiatives 1997 - 1998.

In July 1997, the report *Forests in Trust: Reforming British Columbia's Forest Tenure System for Ecosystem and Community Health* by Cheri Burda et al. of the University of Victoria was released.

This study explores,

...alternatives to the current management of forest resources that can achieve both ecosystem protection and long term community stability. The report's findings and recommendations are predicated on maintaining forest ecosystem health as the enabling context for all resource activities (Burda et al. 1997, vii).

The Forests in Trust report argues that,

Opportunities for local, small-scale forestry in BC include the Woodlot Licence Program, the Small Business Forest Enterprise Program and community controlled tenures. The legislative framework which is oriented to large-scale timber production, and based on centralized management, limits these opportunities (ibid, vii).

The Forest in Trust report argues for the need for eco-system based forestry and community tenures and that ecosystem-based community management is the goal that should be pursued. The primary policy initiative to achieve this would be establishing the *Community Forest Trust Act* which would be,

...intended to provide a vehicle by which forest lands currently under exclusive Crown control can be shifted into an ecosystem-based "trust" status. The trust would be jointly held by the province and a designated community authority, the latter acting as the permanent trust manager (ibid, xii).

This work is valuable in being quite visionary and providing a critique of current forestry management and tenures and raising the issue very successfully on a public and province-wide level. The report was widely read and was discussed in a number of symposia, workshops and conferences including the most recent October 1998 *International Workshop on Ecosystem-Based Community Forestry* that was attended by 80 people from 20 countries.

The report proposes a total of 48 recommendation in three sets or categories:

- General recommendations for tenure and policy reform within the basic context of the current legislative and management regime;

- Specific recommendations for a comprehensive process to support the transition to an ecosystem-based community regime;
- Recommendations to facilitate economic transition based on reduced volumes of timber (Burda et al. 1997, 127).

The report sets out a number of well thought out recommendations such as increasing the Woodlot program and designing a community based tenure that have been pursued by the Ministry of Forests to some extent. The report would have been strengthened by increased emphasis on addressing the economic transition that would occur with the recommendations. The report is hampered as it is largely determined by the primary argument of eco-system based forestry (a subject that is controversial in that it is open to widely disparate descriptions) and secondarily by the importance of community control. The two can in fact be totally exclusive.

The Jobs and Timber Accord announced on June 19, 1997 represents another government forestry initiative in which,

The BC government, industry and all other forest sector stakeholders recognize that if we don't look after our forest, we will not sustain our jobs, communities and environmental integrity. This shared understanding underlies the Jobs and Timber Accord announced on June 19, 1997 (Ministry of Forests 1997a, 1).

It is important to note that tenure reform or the concept of community forestry does not fall under the five Key Accord Principles though under the 'General' section of the accord community forestry is addressed,

The Government will design and pilot at least three community forest tenures, where AAC is available, to allow resource communities and First Nations (including through joint ventures) to participate directly in managing the forest to create sustainable employment (Ministry of Forests 1997b, 3).

On October 22, 1997, the BC government announced the establishment of a Community Forest Pilot project being established under the Jobs and Timber Accord. Forest Minister David Zirnhelt in making the announcement, indicated that the government had provided some forest management opportunities in the past through tenures such as forest licences, but that many communities have said

that they want more local involvement in forest management and this new initiative shows government has listened and responded (Ministry of Forests 1997c).

On December 3, 1997 the advisory committee was appointed with representatives from communities, First Nations, academia, industry and environmental groups (Ministry of Forests 1997d).

The committee was required to make the following recommendations by the indicated deadlines,

- Initial recommendations regarding the framework of the tenure models to be developed: December 19, 1997.
- Final recommendations regarding tenure structure and definition of "community": February 27, 1998.
- Recommendations regarding the pilot selection criteria: February 27, 1998.
- Recommendations regarding suitable pilot test sites: May 30, 1998.
- Recommendations regarding monitoring and evaluation criteria: May 30, 1998 (Ministry of Forests 1997d, 2).

The final recommendations of the committee were made in May 1998 and the proposed legislative amendments to implement and pilot community forest agreements were introduced in the legislature on June 16, 1998 (Ministry of Forests 1998, 1). A copy of the committee's *Final Recommendations on Attributes of a Community Forest Tenure* is provided in Appendix F and the proposed changes (Bill 34) are included in Appendix G. These recommendations and proposed changes are addressed in detail in Chapter VI, the chapter on the design and discussion of proposed community forest tenures.

On September 17, 1998, the Ministry of Forests released the Request for Proposals for Community Forest Pilot Agreement document (Ministry of Forests 1998a) and by the January 15, 1999 deadline, 27 communities had submitted proposals for community forests under the pilot program (Ministry of Forests 1999).

There have been five forestry commissions in the span of 83 years, and forestry regulation, the understanding of property rights and the use of tenures has changed dramatically. Community forestry has been directly addressed in the last four forestry commissions and was recently actively investigated

by a Ministry of Forests appointed committee. The concept of community forestry has existed in the public policy realm in British Columbia since 1943 when it was raised in the First Sloan Commission but only within the last five years has it started to become a high profile issue to investigate.

This lag in government interest or action on community forest might be attributed to a number of factors including:

- the lack of a provincial-wide concern regarding timber supply and community stability until the last two decades;
- the powerful lobby of forest companies and indeed the Ministry of Forests who have wanted to retain control over the forest resource;
- The lack of organized lobbying by communities for community forests - the involvement of the UBCM in lobbying for community forests is a relatively new focus over the last three years;
- The lack of faith on the part of the government that communities can manage forests - this has been strongly demonstrated in a number of meetings between the author and a number of government officials;

Community forestry as with any forestry on Crown lands involves a tenure and a review of tenure is necessary.

CHARACTERISTICS OF FOREST TENURES.

British Columbia is currently experiencing a number of public policy failures within the forestry sector, including:

- silviculture that meets minimum legislated standards rather than being optimal for each site - the Innovative Forest Practices Agreements are exploratory efforts to address this;
- forest management that has historically focussed on harvesting and conversion of old growth stands to second growth. This has precipitated the 'fall down' effect and created a managed forest with reduced biodiversity and concerns about the ecological integrity and ecological health;
- inadequate management of non-timber values - with the Forest Practices Code and the Protected Areas Strategy attempting to address this;
- a non-competitive provincial market for logs as a result of the tenures. The Vernon log yard, amongst others, was established in response to one of the Peel Commission recommendations (#47) addressing this lack of competition;
- and a divergence of intentions or planning concerns between the Ministry of Forests, the forest industry and communities - as evidenced by the number of initiatives by communities to control forest land around them.

In order to create and evaluate tenure types, a number of common components must be considered. Some general characteristics of property rights (Scott and Johnson, 1983) that are applicable to forestry tenure include:

- Comprehensiveness;
- Duration;
- Transferability;
- Right of tenure holder to economic benefits;
- Exclusiveness;
- Security.

Some additional characteristics (Haley and Luckert, 1990) that should also be considered include:

- Use Restrictions;
- Allotment Types;
- Size Specifications;
- Operational Stipulations;
- Operational Controls.

Comprehensiveness

This refers to the number of characteristics or attributes of the forest property that the tenure holder has control over. For example, mineral rights, water rights, recreation rights and wildlife rights are not granted by the existing BC tenures - they are retained by the Crown. Only the rights to harvest the timber are assigned under forest tenures. Thus, property rights assigned under BC forest tenures are not completely comprehensive, and whether this results in a net loss to society depends on the tradeoff between the advantages of integrated planning for all the resources by one tenure holder versus the advantages of specialized planning for each resource use by those users with the most appropriate management skills (Haley and Luckert 1990).

Duration

This refers to the time frame over which the tenure holder's property rights can be exercised.

Private property can be considered a permanent tenure, as long as tax payments are maintained and the Crown does not exercise its powers of expropriation. The existing Crown tenure forms in BC have terms ranging from a year (Minor Timber Sale Licence) to up to 25 years (TFLs for example), with some tenures having evergreen replacement clauses. Timber Licences have an indefinite term which finishes when the last of the existing timber is harvested.

Transferability

This refers to the ability of the rights holder to sell, lease, rent or otherwise dispose of some or all of the property rights to which they are entitled. In an ideal market, fully transferable rights ensure that resources are efficiently exploited and put to their highest use,

In doing so, resource users gain from comparative advantage, specialization and economies of scale. The flexibility which transferability allows is also necessary if resource use is to be adapted to changes in technology, incomes and consumer tastes and values. Additionally, transfers of property rights can correct initial mis-allocations of resources which may exist for a variety of reasons (Haley and Luckert 1990).

In Canada, no Crown forest tenures are freely transferable. In British Columbia, forest tenures are transferable only with the consent of the Minister of Forests and any transfer is subject to a penalty consisting of 5% of harvesting rights being surrendered. Companies who are participating in the Jobs and Timber Accord are exempt from this penalty. This represents an attenuation of the assigned tenure rights, and is particularly important in the forest industry in which investment horizons for silviculture can exceed 100 years. A century is a very long time to invest in an asset that is neither freely transferable nor permitted to be quickly liquidated.

The issue of whether the rights of transferability should be impeded by the government was addressed in the 1976 Royal Commission on Forest Resources. Pearse acknowledged that important economic and social gains could be realized through industrial reorganization and restructuring, which could involve the transfer of timber rights. Dynamic markets, changing cost structures and evolving

social expectations could all promote forest sector restructuring or repositioning. Nevertheless, Pearse felt that the government should create a policy environment in which transfer was not free in order to address overriding concerns including,

- i) Avoiding excessive concentration of timber rights, regional or local monopolies, strategic geographical advantages, or other impediments to competition.
- ii) Forestalling consolidation or relocation of industrial activity that seriously conflicts with community or regional stability or development objectives.
- iii) Maintaining a suitable balance between domestic and foreign ownership and control (Pearse 1976, 121).

Transferability can also apply to the sale of products that arise from the use of the tenured property - the limitations over log exports and other un-manufactured forest products is an example of this. The right granted is the right to harvest the timber, and the log export restrictions are an attenuation of this right.

Rights of Tenure Holder to Economic Benefits

The value of an asset is largely determined by the value of the benefits that the owner can capture. Forest tenure holders are subjected to taxes, stumpages, royalties, land rents and other charges levied by the government. These, as well as any management obligations or requirements which limit the freedom of the tenure holder to act in their best interest, limits the economic benefits that can accrue to the tenure holder.

Exclusiveness

This refers to the rights of the tenure holder to control or prevent others from freely enjoying the benefits of the tenured property. There are varying degrees of exclusiveness ranging from private property (the most exclusive or restrictive) to open access (where there are no exclusions).

The Crown is the largest land or property owner in BC and thus the largest holder or granter of

rights, but it does not exercise nor grant all of these property rights. Some non-granted or non-exercised rights are referred to as 'public goods', and are not always produced or husbanded by either the government or the tenure holders at a socially optimal rate. Examples of public goods include: wilderness, landscape, and watershed protection.

One reason for this inadequate management of 'public goods' stems from the historical bias of timber management in the management of the forests, with the emphasis on timber production and extraction.

There are also technical and a political reasons why some forest benefits are not exchanged (priced and sold) on the market,

The technical reason is that certain forest values are difficult to price and market in the usual way. The aesthetic value of a forest landscape, for example, would be difficult to parcel up and sell to individual consumers, and to exclude those who were unwilling to pay for it....The political reason is that some forest products and services are not marketed because of public choice. For example, in contrast to the view of a forest landscape, access to recreational areas and campgrounds presents no technical obstacle to pricing. Indeed they are often priced by private owners. But governments frequently provide such facilities without charge. Sometimes a fee is charged for a general privilege to hunt or fish, but the charge is usually unrelated to any specific resources consumed, or even the amount consumed, and it is typically a nominal administrative fee rather than a market determined price (Pearse 1990, 66).

Security

This characteristic of tenure is determined by the government and is influenced by the economic and socio-political environment in existence at the time the tenure is devised and/or awarded to the tenure holder. Security is also dependent upon the time of tenure replacement for those tenure types with evergreen clauses. The level of security held by the tenure holder is determined by the level of comfort and trust in the socio-political system within which the government as landowner offers tenures to the private sector. The tenure holders' confidence is influenced by past experiences as well as their anticipation of change in the future to their tenures. This change would include the probabilities of

replacement and/or modification.

Use Restrictions

This characteristic limits the manner in which the tenured forest land can be used. Forest reserves, watershed or riparian concerns, environmentally sensitive areas, raptor nesting areas, can all lead to use restrictions for the tenure holder.

Allotment type

This characteristic of tenure refers to how the rights are granted. Rights may cover a specific geographical area (area-based, such as for a TFL) or for a specific volume of wood to be harvested within a broadly defined land area (volume-based, such as for a FL).

Size Specification

This can refer to restrictions over either the area of the tenure, or the volume of timber harvested from it. The size of the tenure can influence the holder's economic behaviour, and in a freely transferable situation, tenures would be traded in whole or in part so that ideal economies of scale were achieved.

The Crown must seek a balance between allowing the tenure size to be large enough to permit economies of scale, economic and efficient while at the same time avoiding the creation of monopsonies and monopolies which can create economic loss and lead to socio-economic and political difficulties (Haley and Luckert 1990).

Operational Stipulations

These exist in three forms applying to: management, harvesting and processing. Management

stipulations are intended to address resource conservation and perpetuation, and cover reforestation and protection. Harvesting stipulations attempt to maximize the use of the resource and are exemplified by the utilization standards in BC. Processing stipulations require the forest tenure holder to build and/or operate a timber processing facility of a certain capacity and/or type, referred to as the appurtenant mill. Bid proposals under the SBFEP require wood to be used in a 'value added' manufacturing facility.

Operational control

This refers to the extent and manner by which the government (land owner) monitors and ensures tenure holder compliance with the agreed to operational stipulations and other restrictions. This can involve monitoring tenure holder performance, and at times enforcing standards if compliance is not met. In BC, operational control is also exerted by requiring the tenure holder to submit operational, working and management plans for review and approval.

The *Forest Practices Code of British Columbia Act*, the guidebooks, regulations and standards are all means by which the operations of the tenure holder are directed by the government as land owner.

BC's CURRENT TENURE SYSTEM.

BC's existing tenure system is composed of ten tenure types, with seven of these accounting for over 99% of the regulated area. In fact, the majority (78%) of the provincial Annual Allowable Cut is covered by only two types of tenure, the Tree Farm Licence (TFL) and Forest Licence (FL). TFLs, accounting for 24% of the AAC, are area based and tend to be the dominant tenure type on the coast. Forest Licences, accounting for 54% of the AAC, are volume based and are the most important tenure type in the interior of BC (Ministry of Forests 1997).

Each tenure carries with it various management rights and obligations which influence and control the behaviour of the tenure holder. The tenures reflect some of the social, economic, political

and environmental concerns that may have existed at the time that they were designed and put into practice (Ministry of Forests 1997).

As old-growth forests continue to decrease in size and number, there is a growing challenge to design policies such as tenures to ensure that harvested public lands are reforested and the resulting timber crops managed in the best public interest (Haley and Luckert, 1990).

Added to this challenge is the growing public desire not to see all public forests converted into managed operations with the liquidation of the old growth and reforestation and subsequent harvesting of second growth. There is a growing public desire for sustainable forest management as an element of sustainable development and a growing concern over the sustained yield management that has been practised in the past. It was this desire that led to the development of the Old Growth Strategy for British Columbia,

The natural old growth forests of British Columbia represent a wide range of spiritual, ecological, economic and social values. As the original stands dwindle, we are challenged to manage them with increasing care to ensure that this heritage is not permanently lost. We are also challenged to renew our managed forests to reflect attributes and values which a study of old growth has revealed to be biologically important. Successful treatment of these critical issues requires a widely supported and comprehensive study.

The purpose of the Old Growth Strategy is to provide a framework for managing old growth forests in British Columbia. The strategy identifies the forest values inherent in old growth and the manner in which old growth can be conserved, through reservation of representative areas and through forest management practices on intensively managed lands (Ministry of Forests 1992, v).

The current timber tenure system was established through the 1979 *Forest Act*. The *Forest Act* and its regulations provide the tenure system structure, and set out,

- the forms of agreement under which the Crown timber can be sold and factors that must be considered by the ministry when this occurs
- the rights and obligations of each form of tenure
- rules about administration of tenures (Ministry of Forests 1997, 1).

The following table provides an overview of the existent BC forest tenures.

Table 2.1 Forest Tenure Types in British Columbia

Tenure Type	Number of Tenures	Committed AAC ('000m³)	% of Provincial Committed AAC
Tree Farm Licence	34	16,492	24
Woodlot Licence	516	631	1
Forest Licence (Replaceable)	151	36,658	53
Forest Licence (Non-replaceable)	39	2,512	4
Timber Sale Licence (Pulpwood Agreement)	24	2,540	4
Timber Sale Licence (Non-SBFEP) Replaceable	8	101	Insignificant
Timber Sale Licence (Non-SBFEP) Non-replaceable	0	0	0
Timber Sale Licence (SBFEP) Replaceable	107	204	Insignificant
Timber Sale Licence (SBFEP) Non-replaceable	1,666	9,391	14
Forest Service Reserve including Licence to Cut	1,381	950	1
TOTALS	3,926	69,479	100

(Source: Ministry of Forests 1998b)

Tree Farm Licences

The Tree Farm Licences vary considerably but are all area based and have a number of common features, one of which is that all the lands (crown-granted, timber licences owned by licensee, and crown lands) in each TFL are managed as an integrated sustained yield unit under one plan (Pearse, 1992). The terms of the TFLs are 25 years, with provisions for 'evergreen' replacement every five years (Ministry of Forests 1997), thus providing the holder with the most security of all the tenure types (Pearse, 1987b).

The TFL only provides 'rights' to harvest timber, and is thus harvesting and not silviculturally

focussed. The tenure provides no silvicultural incentives, with the tenure holder bearing basic silviculture costs (replanting and ensuring that the seedlings reach the free to grow stage). TFLs tend to be larger in scope than the other tenure areas, and are generally held by large integrated firms. The TFLs represent the largest harvested volume and land area on the coast.

The forest management obligations under the TFL are the most comprehensive of all the tenure types, with the tenure holder or licensee being responsible for resource inventories, strategic and operational planning, road building and reforestation. The Licensee must also maintain a manufacturing facility if that was a requirement under the original licence (Ministry of Forests 1977).

Forest Licences

Forest Licences are all volume based and have shorter terms of 15 years (with a few having 20 year terms), and a 5 year evergreen replacement clause. Forest Licences have generally smaller Annual Allowable Cuts (AACs) than TFLs, and are used by both non-integrated firms (sawmills) as well as integrated firms. Forest Licences are especially important in the interior where they account for approximately 65% of the harvesting, as opposed to only 24% of the coastal harvest (Pearse, 1992).

The Forest Licence holder is responsible for operational planning, road building and reforestation. The licensee must maintain a manufacturing facility if required in the original licence (Ministry of Forests 1997).

TFL and FL licensees are responsible for a number of operational plans under the Forest Practices Code Act including: Forest Development Plans, Range Use Plans; Access Management Plans; Five-Year Silviculture Plans; Silviculture Prescriptions; Logging Plans; and Stand Management Prescriptions (Ministry of Forests, Ministry of Environment 1993).

Woodlot Licence

The last tenure type that will be addressed is the Woodlot Licence. These were designed to achieve three basic purposes,

...to promote good forest management on small isolated parcels of crown forest land that are otherwise difficult for the Ministry to manage, to encourage forestry on private lands, and to increase opportunities for public involvement in small-scale forest management. Owners of wood processing facilities are specifically prohibited from holding Woodlot Licences (Pearse 1992, 39).

In many ways, Woodlot Licences are treated like miniature TFLs, only their terms and conditions are less comprehensive. Woodlot Licence terms are 15 years with 5 year evergreen replacement clauses. The area of crown land covered by a Woodlot Licence can not exceed 400 hectares on the coast and 600 hectares in the interior, and owners are restricted to owning only one Woodlot Licence (Ministry of Forests 1997). As with TFLs, they are intended to be combined (for management purposes) with any nearby privately owned forest land of the Licensee (Pearse, 1992).

Characteristics Of TFLs, FLs And Woodlot Licences

The characteristics of each of the three aforementioned tenures are presented below in a table to facilitate a comparison between them. This information is drawn from Haley and Luckert's 1990 Forestry Canada Report entitled *Forest Tenure in Canada: A Framework for Policy Analysis*, with minor amendments to reflect changes in legislation.

Table 2.2 Tenure Characteristics

Characteristic	Tenure Specifics									
<i>1. Comprehensiveness and Exclusiveness.</i>										
Tree Farm Licence	Exclusive timber harvesting rights and management responsibilities on most areas within the licence.									
Forest Licence	Exclusive timber harvesting rights and some management responsibilities (province is responsible for the strategic planning and inventory of Timber Supply Areas).									
Woodlot Licence	Exclusive timber harvesting rights and management responsibilities.									
<i>2. Transferability.</i>										
Tree Farm Licence	Tenures transferable with the Minister's consent. When transferred, 5 percent of the tenure allowable annual cut will revert to the Crown. Restricted exports of timber and wood residue from the province.									
Forest Licence	Same as for TFL, but up to 10% of the AAC will be lost if converted to a TFL.									
Woodlot Licence	Tenures transferable with Minister's consent. Restricted export of un-manufactured timber and wood residue.									
<i>3. Rights of Holder to Economic Benefits.</i>										
<i>Costs</i>										
Tree Farm Licence 1997-1998 fiscal year averages Supplied by MoF Valuation Branch ¹⁴	<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;">Coast</th> <th style="text-align: center;">Interior</th> </tr> </thead> <tbody> <tr> <td>Stumpage</td> <td style="text-align: center;">\$30.87/m³</td> <td style="text-align: center;">\$27.74/m³</td> </tr> <tr> <td>Ground Rent</td> <td style="text-align: center;">\$.45/m³ AAC</td> <td style="text-align: center;">\$.45/m³ AAC</td> </tr> </tbody> </table>		Coast	Interior	Stumpage	\$30.87/m ³	\$27.74/m ³	Ground Rent	\$.45/m ³ AAC	\$.45/m ³ AAC
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Stumpage	\$19.90/m ³	\$28.07/m ³								
Ground rent	\$.25/m ³ AAC	\$.25/m ³ AAC								

¹⁴Silvestrini 1998

Woodlot Licence 1997-1998 fiscal year averages Supplied by MoF Valuation Branch	Coast Stumpage \$ 8.50/m ³ Ground rent \$.50/m ³ AAC	Interior \$21.89/m ³ \$.50/m ³ AAC
Benefits		
Tree Farm Licence	Timber and 'allowable cut effect'	
Forest Licence	Identical to TFL	
Woodlot Licence	Timber	
Stumpage		
Tree Farm Licence	'Comparative value pricing system' begins with targeted average stumpage rate, determined by Crown, and distributes the burden of desired revenues among tenure holders according to the relative value of forest stands harvested. Stumpage adjusted quarterly for market values according to softwood lumber price indices.	
Forest Licence	Identical to TFL	
Woodlot Licence	Identical to TFL	
4. Operational Requirements		
Reforestation		
Tree Farm Licence	Holder must bear basic silviculture costs	
Forest Licence	Identical to TFL	
Woodlot Licence	Holder is responsible for reforestation	
Protection		
Tree Farm Licence	The holder is responsible for fire protection on occupied lands, but may be reimbursed for suppression expenses unless the fire was caused by the tenure holder. The Crown and tenure holder may enter into agreements for the control and disposal of insects or disease and share the costs of control and disposal.	
Forest Licence	Identical to TFL	
Woodlot Licence	Identical to TFL	

<i>Road Building</i>	
Tree Farm Licence	Holder must bear costs of roads and bridges. Roads built or upgraded to meet the public needs will be borne by the Crown.
Forest Licence	Identical to TFL.
Woodlot Licence	Licensee is responsible for road building.
<i>Operation of Processing Plant</i>	
Tree Farm Licence	The Minister may require holder to operate a timber processing facility.
Forest Licence	Holder must operate a timber processing facility.
Woodlot Licence	Holder must not own or control a timber processing facility.
<i>Harvesting Requirements</i>	
Tree Farm Licence	Holder must harvest within +/- 50 percent of the allowable cut annually and within +/- 10 percent of the allowable cut over 5 years. Utilization requirements and environmental considerations must be followed in harvesting.
Forest Licence	Identical to TFL. Where the cut is less than 50,000 cubic metres, the regional manager may substitute different requirements.
Woodlot Licence	Holder must harvest within +/- 10 percent over a five year period. Utilization requirements and environmental considerations must be followed in harvesting.

<i>Other</i>	
Tree Farm Licence	Holder is responsible for conducting a recreation inventory, but management activities may be conducted by the Licensee, the province, or jointly. At least 50 percent of Schedule B lands must be harvested by logging contractors.
Forest Licence	The regional manager may stipulate that some logging be contracted out.
Woodlot Licence	Preference is given to applicants whose place of residence and private land holdings consolidate well with Crown lands.
<i>5. Duration</i>	
Tree Farm Licence	25 years, 5 year evergreen replacement.
Forest Licence	15 years (maximum of 20 years in exceptional cases), 5 years evergreen replacement.
Woodlot Licence	Up to 15 years, 5 years evergreen replacement.
<i>6. Security</i>	
Tree Farm Licence	Tenure may be cancelled for non-compliance with stipulations. No compensation is paid to holder for deletions of up to 5 percent of the AAC.
Forest Licence	Identical to TFL
Woodlot Licence	Identical to TFL
<i>7. Use Restrictions</i>	
Tree Farm Licence	Crown land may be disposed of for any purposes that the chief forester considers to be compatible with the uses of the provincial forests.
Forest Licence	Identical to TFL. Plus, the Lieutenant Governor-in- Council may cancel a provincial forest for higher social and economic benefits.
Woodlot Licence	Identical to FL

8. Size Specifications	
Tree Farm Licence	Tenures are generally held by large forest product companies. Minister may consolidate or subdivide the licence with the consent of the licensee.
Forest Licence	Tenures generally held by medium to large companies.
Woodlot Licence	Crown land portion may not exceed 400 ha on the coast and 600 ha in the interior.
9. Allotment Type	
Tree Farm Licence	Area allotment.
Forest Licence	Volume allotment.
Woodlot Licence	Area allotment.
10. Operational Control	
Tree Farm Licence	Government approval of management, working, development, and pre-harvest silvicultural plans and cutting permit applications. Licensees are subject to periodic audits of performance.
Forest Licence	Identical to TFL.
Woodlot Licence	Government approval of management, working, development, and pre-harvest silviculture plans and cutting permit applications.

CHAPTER SUMMARY

This chapter addressed the first and second thesis objectives.

The first thesis objective was to compile a comprehensive review of the evolution of property rights, tenure and forest resource management in British Columbia and determine what role community forestry played in this. Property rights can influence the behaviour of the holders of those rights. Forest tenures are important property rights vehicles that have been adapted over time

attempting to meet the needs of both the government (issuer) and the private institutions (holders). Community forestry has not played a historically significant role in forest management despite being recommended by the last four forest commissions.

The second thesis objective was to investigate the characteristics of forest tenures in British Columbia, with a particular focus on Tree Farm Licences and Forest Licences (accounting for most of the AAC) and Woodlot Licences (designed specifically for small scale forestry). Existing tenures have a number of failures including inadequate forest management, lack of competition and concerns about community stability. Inadequate forest management and community stability are particularly important to communities. A desire to have more local control and decision making drives the current community forest initiatives.

Tenure reform offers an opportunity to address some of the failures that exist with current tenure forms by either: 1) creatively use existing tenures or 2) designing and implementing new tenure(s) specifically designed for community forestry.

The following chapter will discuss the concepts of community, conflict, culture and planning and how these influence the concerns directed at existing tenures.

CHAPTER III.

COMMUNITY, CULTURE, CONFLICT AND PLANNING

OVERVIEW OF CHAPTER

This chapter addresses the third thesis objective. The first part of this objective is to examine the interrelationships between community, culture and conflict and how these influence planning. A second part of this objective is to then examine the challenges and risks of forestry planning and how a formalized planning and dispute resolution process with extensive public and community participation can be used to assist in the planning process.

Community, culture, conflict and planning are inter-linked concepts that influence the success or failure of public participation in forest land management. They are also intrinsic to understanding community forestry. Each concept is heavily value laden with extensive symbolism and emotionalism attached.

The concepts need to be evaluated in the context of a world within which political and administrative parameters and boundaries are dynamic. Concepts such as sustainable development and changing social values increase the complexity of community challenges and opportunities, especially when these involve long time horizons such as forestry planning. Another factor is the growing interest in regional control and a devolution of power and control from centralized state and federal governments while the world economy is becoming increasingly globalized. Perhaps this interest is a reactionary search for community identity.

COMMUNITY

Community is a term that has been discussed in a large number of fora with numerous definitions and meanings attributed and ascribed to it. The concept of community has been studied by

sociologists for over 200 years and a satisfactory definition of exactly what the concept of community encompasses still seems to be as remote as when the sociological enquiry began (Bell and Newby 1971).

It is a term to which there is significant symbolic value and which many hold as dear,

Most sociologists seem to have weighed in with their own idea of what a community consists of - and in this lies much of the confusion. For sociologists, no more than other individuals, have not always been immune to the emotive overtones that the word community consistently carries with it. Everyone - even sociologists - has wanted to live in a community; feelings have been more equivocal concerning life in collectivities, groups, networks or societies. The subjective feelings that the term community conjures up thus frequently lead to a confusion between what it *is* (empirical description) and what the sociologist feels it *should be* (normative description). The reasons for this enduring confusion can be related to the history of sociology itself. What the concept *involves* has not proven difficult to elaborate; attempts to describe what it *is*, however, have proved impossible without making value judgements (Bell and Newby 1971, 21).

People manifestly believe in the notion of community, either as an ideal or reality, and sometimes as both simultaneously. (Hamilton 1985, 8).

The subjectivity and value judgements behind the study of community has led to numerous studies and proposed definitions of community and a brief theoretical history of the sociological study of communities is provided to demonstrate the complexity of the term. The industrial revolution has played an important role in how we have collectively viewed and studied the concept of community. The industrial revolution arguably created a massive social shift which was not only unexpected in its scale and scope, but also quite unpredictable in terms of the rate and momentum of the change. This change, often perceived as threatening, in conjunction with the positive values attributed to the concept of community, led to a nostalgia in which the present society was criticized with respect to the community of the past,

The upheavals of industrialization enables those [nostalgic] feelings to be given full rein. Industrial society - and its ecological derivative, the city - was typified by competition and conflict, utility and contractual relations; the community - and its ecological derivative, the village or, at the most, the small town - was the antithesis of these. The impersonality and anonymity of industrial society were highlighted by reference to the close personal ties of the community. The trend appeared to be away from the latter and towards the former: thus there is in writers such as Comte an

anguished sense of the breakdown of the old (Bell and Newby 1971, 22).

Ferdinand Tönnies's 1887 book *Gemeinschaft and Gesellschaft* (often translated as Community and Society) arguably established him as the founder of community theory (Bell and Newby 1971) and it remains a key text for studying sociology. This work creates a dichotomy between *Gemeinschaft* (community) and *Gesellschaft* (either translated as society or association). *Gemeinschaft* human relationships are intimate, long standing and based on a clear understanding of social standing and rank. Someone's worth is estimated based on who they are rather than what they have done, in other words it is ascriptive rather than based on achievement. In a community the roles are specific and are compatible with each other, society is stable and there is little movement either in terms of physically relocating or climbing/falling between classes. The culture of the community is viewed as being homogeneous, and the role of the family and church as moral custodians is prominent. Community promotes tradition, conventions, mores and a moral code. The familiarity with names and characters promotes the personalization of issues, events and explanations (Bell and Newby 1971).

In contrast to this, *Gesellschaft* or society/association is essentially everything that *Gemeinschaft* or community is not (Bell and Newby 1971). *Gesellschaft* refers to,

...the large scale, impersonal and contractual ties that were seen by the nineteenth century sociologists to be on the increase, *at the expense of Gemeinschaft* [emphasis mine] (Bell and Newby 1971, 25).

Tönnies established the essential idea of monitoring social change along a continuum between polar types, essentially regarding it along a dichotomy. This approach became the common thread through many community studies and is seen in nineteenth century sociological theories incorporating authority-power, status-class, sacred-secular and alienation-progress (Bell and Newby 1971). Tönnies' work in contrasting the two social structures of *Gemeinschaft* and *Gesellschaft*, particularly his work on the latter, where the relationships were negotiated or part of a rational organisation, was a key feature of the concept of modernity.

Modernity is associated with the time period starting with the industrial revolution in which there were societal changes driven by the development of the modern industrial economy which not only saw the emerging working class weakening state structures but also undermining rural communities that had long been virtually immutable (Albrow 1999). Modernism can be thought of as referring,

...modes of social life or organisation which emerged in Europe from about the seventeenth century onwards and which subsequently became more or less worldwide in their influence (Giddens 1990, 1).

In his 1990 work *The Consequences of Modernity*, Giddens argues that the distinctive characteristics of our current major social institutions and their consequences are only now becoming more radicalized and universalized in what he refers to as a period of 'later modernity', and that we have some time to go before entering into a post modern world. Modernity with the emergent social structures shaped by capitalism and meritocracy has emancipated people by providing them a means to reap the rewards of their efforts and essentially pursue self-actualization. Contemporary social institutions differ from the traditional social orders and the discontinuities between the two feature the rate of change, the scope of change and the intrinsic nature of modern institutions - some of which, including nuclear (inanimate) power and the commodification of both products and wage labour, have no historical roots (Giddens 1990). Having no historical continuity naturally creates a discontinuity between the traditional and the contemporary - a vivid example of this might be the novelty of the computer and the internet, in which suddenly there has developed a world-wide network that many people can suddenly participate and more importantly interact within.

Giddens (1990) suggests that there were three classical founders of sociology, namely Karl Marx, Émile Durkheim and Max Weber. In 1872 *The Communist Manifesto* by Marx and Engels was published, in which they argued that class struggle was the source of the fundamental breaks or schisms in the capitalistic system. This was essentially a work with an optimistic view of the eventual emergence of a more humane social system. In contrast to this, Émile Durkheim believed that the

continued expansion of industrialism would,

...establish a harmonious and fulfilling social life, integrated through a combination of the division of labour and moral individualism (Giddens 1990, 7).

Giddens argues that Max Weber was the most pessimistic of the three founding fathers and saw the modern world as,

...a paradoxical one in which material progress was obtained only at the cost of an expansion of bureaucracy that crushed individual creativity and autonomy (Giddens 1990, 7).

Giddens (1990) suggests that even Weber may have underestimated the downside or darker side of modernity, including aspects such as the frequently degrading nature of modern industrial work, the growth of totalitarianism, the threat of environmental destruction, the growing focus on the development of military power and ever-more destructive weapons.

Giddens (1990) argues that modernity has three driving factors: 1) the separation of time and space; 2) the development of disembedding mechanisms; and 3) the reflexive appropriation of knowledge. The separation of time and space involves moving away from local referencing and moves more to the infinite or borderless world. Disembedding refers to the "...lifting out of social relations from local [traditional] contexts and their restructuring across indefinite spans of time-space (Giddens 1990, 21). The reflexive appropriation of knowledge is " the production of systemic knowledge about social life becomes integral to social reproduction, rolling social life away from the fixities of tradition" (Giddens 1990, 53).

Beck (1986) argues that there is a 'darker dimension' to the constitutive roles in modernity assigned to science and knowledge, as they produce consequences unlike any previously faced. An example of one such consequence would be the generation of nuclear waste which can have a half life of thousands of years, potentially impacting many future generations of people or the Chernobyl incident. Crossing both time lines and national lines, nuclear waste or radiation are consequences which

are both difficult to ascribe accountability for their generation and also difficult to calculate compensation for those whose lives are impacted. These are new risks and as such create a new 'risk society', in which the non-local and sometimes global creates impacts or risks that impact the local.

One can see the elements of *Gemeinschaft* and *Gesellschaft* in such a transaction, in that the society has essentially overpowered the community with regard to risk. Frustration over issues such as this have led to a growing sociological reaction, in which the counterpart of globalization is pursued, in other words there is a movement developing which attempts to retain, support or construct 'the local', the familiar, the social relations and setting in which there is perceived to be more control. This effort can involve a number of social organisations, such as small-scale communities, ethnic or linguistic groups and territories, customs, heritage and even greater control over the development and use of resources. This movement is a blend of both a longing for a sense of 'community', as well as an acknowledgement of the need to focus more on a new form of dialogic democracy in which there is a recognition of the other, a willingness to listen and debate in a mutual process, in an effort to avoid less desirable alternatives such as violence (Beck et al 1994). The social relationships formed through this dialogic democracy might constitute a form of community.

There have been numerous attempts to come up with robust definitions of community over the last century and indeed there has been extensive effort put into both the generation and analysis of community definitions, with Hillery's analysis of 94 definitions in his 1955 paper *Definitions of Community: Areas of Agreement* possibly being one of the most useful. Hillery determined that there was little agreement between the definitions but did abstract sixteen concepts from the definitions that have later been used by Bell and Newby who determined that,

A community cannot be an area and not be an area, though significantly Hillery found that no author denied that area *could* be an element of community. All but three of the definitions clearly mention the presence of a group of people interacting; those that do not have an ecological orientation...Sixty-nine of the ninety-four definitions agree that community includes social interaction, areas and some ties or bonds in common.

Seventy or almost three-quarter, agree on the presence of area and social interaction as necessary elements of community; but more than three-quarters (seventy-three) agreed on the joint inclusion of social interaction and common ties. Thus a majority of definitions include, in increasing importance for each element, the following components of community: area, common ties and social interactions (Bell and Newby 1971, 29).

Despite the complexities in deriving a definition, or even accurately determining the scale and scope of a community, the very concept of community remains a critical element and a building block or foundation on which the structure of society hangs. Community has received much attention, and indeed,

...the study of community will continue to be necessary as long as local relationships play an important part in peoples lives, for we have a long way to go until we are all part of a McLuhanesque 'global village', or feel that the only determining feature of our social lives is our relationship to the means of production and membership of a social class (Hamilton 1985, 8).

Anthony Cohen's 1985 book *The Symbolic Construction of Community* proposes that we not focus on the structures and forms of community organization and life, as has been the case of much social anthropological and sociological study, but instead focus the analysis on meaning rather than form, and as such deal with culture rather than structure. Cohen argues that meaning can be independent of structure and is not determined by it, and there are forms of behaviour in which the community has adopted the structural appearance of other communities but continues to contrive to preserve a strong sense of self identity or "distinctive sense"(Cohen 1985, 86). In this, the community boundary serves a critical role,

...since people become most sensitive to their culture when they encounter others', the apposite place at which to find their attitudes to their culture (or their imputation of meaning to their community) is at its boundaries (Cohen 1985, 70).

Cohen argues that community can be examined by focussing attention on the boundary. That is the element that discriminates between what is within and without the community. Boundaries come into being in order to delineate differences, to create a separation between one community and another.

The boundary captures the identity of the community and,

...like the identity of the individual, is called into being by the exigencies [demands] of social interaction (Cohen 1985, 12).

A community involves membership, and Cohen suggests that symbols play an important role in binding a community together. The symbols are assigned meanings, with different members of the community often having a spectrum of meanings that they attach to the symbols. The symbols serve as foci, and the very awareness or consciousness of the community is maintained through the manipulation of the collective or common symbolism. Examples of symbolism within Vancouver might include Stanley Park, the City Hall, the North Shore Mountains and the lit ski hills at night. Rural communities often refer to themselves as forestry, ranching or mining towns - reflecting the primary industry of the area. Cohen states that the symbols,

...do not so much express meaning as give us the capacity to make meaning...the reality and efficacy of the community's boundary - and therefore, of the community itself - depends upon its symbolic construction and embellishment (Cohen 1985, 15).

As a community grows, it goes through a number of stages, some of which are conflict free - others which may spawn conflict. During this passage through various stages a community may take on a series of symbols. The City of Rosslund started off as a mining town, evolved into a bedroom community for the smelter City of Trail, and in the last few decades has turned into a skiing and tourism destination as well as a place for people to retire or enjoy a more relaxed lifestyle.¹⁵ Rosslund prides itself as being a distinct community, and Cohen argues that this is possible because of the role of the boundary, especially in symbolic terms,

...the diminution of the geographical bases of community boundaries has led to their renewed assertion in symbolic terms. Since the boundaries are inherently oppositional, almost any matter of perceived difference between the community and the outside world can be rendered symbolically as a resource of its boundary. The community can make virtually anything grist to the symbolic mill of cultural distance, whether it can be the

¹⁵Carrel 1997

effects upon it of some centrally formulated government policy, or a matter of dialect, dress, drinking or dying. The symbolic nature of the opposition means that people can 'think themselves into difference'. The boundaries consist essentially in the contrivance of distinct meanings within the community's social discourse. They provide people with a referent for their personal identities (Cohen 1985, 117).

CULTURE

Communities have a culture. Cohen proposes the axiom that people become culturally aware when they position themselves at their cultural boundaries where they encounter other cultures, become aware of other approaches to doing things or recognize the contradictions in their own culture (Cohen 1985). Cohen emphasizes the role of the boundary again in relationship to social change,

We have found that as the structural bases of the boundary becomes undermined or weakened as a consequence of social change, so people resort increasingly to symbolic behaviour to reconstitute the boundary... (Cohen 1985, 70).

Geertz states that "...man is an animal suspended in webs of significance he himself has spun..."(Geertz 1975, 5). These webs represent culture. Culture acts as a community 'glue', a binding agent to hold or join together the members in a community, to unite them into a common body.

Geertz assigns three principles to culture. The first principle of culture is that it is created and recreated on a continual basis through social interaction between people. Culture is not imposed upon them. A rural, resource-based, community whose population is expanding through 'urban refugees' experiences a cultural change which can spawn disagreement or conflict. The Districts of Mission and North Cowichan have had influxes of people who have left the larger centres of Vancouver and Victoria, cashing out on high real estate prices and have moved to the less expensive rural areas. They have brought with them their perspectives on forestry and forest management which lean more towards

protection and recreation rather than timber harvesting.^{16,17}

The second principle of culture is that the evolution of culture is a continuous process and culture has neither "deterministic power nor objectively identifiable referents [law]" (Cohen 1985, 17). Culture can not force an outcome or be relied upon to ultimately explain all interactions or societal events. This can be observed in communities where small groups of politically active people are able to manipulate an agenda which may not be representative of the larger community or in single industry towns in which the company may be able to exert political pressure on community decisions that favour the company well being at the expense of that of the community. This was one of the reasons that 'company towns' were so disliked - they were dominated by a 'corporate culture' in which the needs of the local industry took precedence and were not democratic in that many of the residents were afraid to speak out for fear of losing their job and/or their home.

The third principle is that culture is,

...manifest, rather, in the capacity with which it endows people to perceive meaning in, or to attach meaning to social behaviour. Behaviour does not 'contain' meaning intrinsically; rather, it is found to be meaningful by an act of interpretation: we 'make sense' of what we observe (Cohen 1985, 17).

Cohen suggests that the ultimate referent of community is that its members create a similar sense of things. This can be achieved in either a general fashion or with respect to specific things of interest. The Scandinavian people have a closer relationship with their forests than most Canadians, with walking, berry picking and mushroom gathering being very popular cultural activities. Northern communities, such as Prince George, often hold a festival in the latter part of winter to help bolster the community's spirits that flag at that time of the year due to the long periods of cold and darkness.

Furthermore, it is not uncommon for community members to believe that there may be some

¹⁶Allan 1997c

¹⁷Frank 1997

uniqueness or differences of their community sense from that of another community group. While undertaking forestry consulting on the Queen Charlotte Islands/Haida Gwaii in 1996, the researcher was often told of the 'Island Mentality', in which residents would do things their way - almost in a stubborn fashion and which often took longer to complete than the time frame that was comfortable to 'Off-islanders'.

The realization of community or reality of it in peoples' experience resides in their attachment to a collective or common body of symbols,

...peoples' experience and understanding of their community thus resides in their orientation to its symbolism (Cohen 1985, 16).

This experience or relationship can be defined by various reference points such as: physical attributes (e.g. living in a specific area, such as the Slokan Valley or the wet and cool winters of the northwest coast); the distinctive architecture of the buildings (e.g. the Swiss Chalet look of the Kimberley Ski Resort); or shared belief systems (e.g. the Hare Krishna community in the Venables Valley of South Central British Columbia).

Schama explores the powerful influence of our mind's eye when we talk about 'nature', where the images/symbolism come from and whether they are in fact based on reality or myth (Schama, 1995). Symbolism plays an important role in our perception of where we were born and the country or urban scenery with which we grew up. Similarly, symbolism is entwined with our memories of what life was like in the 'good old days' - which when examined more closely often involved hardship - something which is rarely recalled in its entirety.

Meinig (1979) explores the imagery and symbolism of place in his seminal work *Symbolic Landscapes* in which he described the three archetypal landscapes for North Americans: the New England Village; the Main Street of a Midwest town; and the Californian suburb. Each of these landscapes evokes powerful feelings, all of which are positive in nature. These landscapes or images

or reality are not completely accurate - in fact, they are all characterized as much by what is not 'seen' as by what is. They are social constructions of reality, constructed and maintained in either a conscious or unconscious manner. Meinig discusses how important these landscapes are within our society,

What is certain is that new landscapes, actual and symbolic, are being created, and like those we have already experienced they will be at once a mould and a mirror of the society that creates them. If we are interested in interpreting the nature and course of our national life it might be well to give them closer attention. (Meinig 1979, 188).

Evernden talks about the social construction of reality, and the importance this construction plays in creating a common cultural image or model, suggesting that it is,

...the production of a landscape photograph. If we assume that there is a normal photograph that represents what is actually present in the world, then the act accomplished by society is the taking of one small portion of that image and pretending that it is the whole (Evernden 1985, 36).

It is this landscape or image, and our reluctance to re-evaluate the status quo, that explains the periods or eras that societies pass through. These landscapes and images described by geographers are very similar to the sociological constructs of *Gemeinschaft* and *Gesellschaft*, in which there is also much which is not seen or which remains constant and immutable.

The power of imagery can even affect the sociological researcher as an observer (*Vidich and Bensman 1964*), as was discovered in their work in a community assigned the pseudonym of Springdale. This community study was published in 1958 in the book *Small Town in Mass Society*. In this work it was discovered that,

The general, informal image of the town was never quite summed up in staff and field reports. As a result of these differences in the quality of information possessed by different researchers on the staff, different images of the town were held by the different researchers on the staff, different images of the town were held by researchers who occupied different positions in the research organisation (Vidich and Bensman 1964, 315).

Not only the influence of the informal experience of continuous exposure to the community played a role in the creation of the imagery, but also the predisposition (from theoretical and field work experiences)

of the researcher to various aspects of the information or imagery and the importance of their being aware of this (Vidich and Bensman 1964).

Landscape or image inertia explains the societal upheaval in North America caused by the launching of the Russian Sputnik in 1957 and the public's reaction of fear in hearing the first transmission sounds of a satellite. It was the event that precipitated the implementation of the first federal aid-to-education policy,

...not because the president and a majority in Congress finally recognized the importance of improving education for its own sake, but because of the new importance of training scientists and engineers in service of our struggle with the communist system. We simultaneously launched the American space program, not because a majority in Congress was suddenly motivated by a desire to explore the universe, but because the program became tied to our desire to defeat the communist idea (Gore 1993, 271-272).

The space race led to the first images of the planet earth floating in the universe that were captured in the Apollo program. Suddenly there was a new view of the earth as a planet surrounded by a vast blackness of the heavens. There was a new landscape. The magnitude of the universe suddenly hit home, and many of us realized just how small we were in the larger scheme of life and existence. In the end, people around the planet re-thought and adjusted their societal or planetary images. Concepts such as "Lifeboat or Spaceship Earth" sprung up, and there was a renewed sense of the earth and the environment and community.

Initially there was a belief that space exploration would discover other forms of life, and that there would be other worlds and civilizations. This led to some believing that if the environment on earth ever became uninhabitable, there would be other planets that could be colonized. A search for life began, a search that has been unsuccessful to date and which has led to a re-examination of the importance of our planet,

The apparent silence of the stars suggests that until shown otherwise, human beings must assume they are alone in the universe. Human intellect, flawed as it is, must until further notice be stipulated as the foremost achievement so far recorded by the whole

of nature. The creatures that share Earth with genus *Homo* must be assumed to be priceless in the dictionary sense - that is, possessing a value too great to calculate. The apparent silence of the stars suggests that until further notice, Earth's living biosphere must be assumed to be the most important location in the entirety of the cosmos. And the preservation and expansion of that biosphere must be presumed the central task in all the firmament (Easterbrook 1995, 686).

This silence has coincided with the demise of the 'pioneer mentality' that marked the early timber harvesting, particularly in the west, where the forests seemed endless. This evolution of harvesting from simple timber extraction to the pursuit of sustainable forestry and sustainable communities is addressed more extensively in the following chapter.

During this period of forestry change, the communities have also passed through an evolution. This change has been the most dramatic for single industry communities, especially those dependent on the woods. Some of the communities were created with the onset of timber harvesting and died as soon as the timber supplies were exhausted leaving only 'Ghost Towns' (Mercer 1944). In other communities forestry has been a way of life for multiple generations and it is one of the defining characteristics of the community.

One of the common symbols in a community is the institution. The word has a number of meanings, including,

...*Sociol.* a well-established and structured pattern of behaviour or of relationships that is accepted as a fundamental part of a culture...any established law, custom, etc...any familiar practice or object (The Random House Dictionary of the English Language, The Unabridged Edition 1973, 737).

Institutions can take many forms. The Royal Canadian Mounted Police is a unique Canadian Institution, as are the Laplanders a Finnish or Swedish Institution. Religious organizations and their leaders are powerful institutions - consider the wide spread recognition of the images of the Pope or the Dalai Lama. Our perception of planet earth as a global landscape is an institution. Some forest workers in British Columbia have claimed their way of life as an institution and something to which they have a right to continue to engage in.

Institutions can also have a much lower or more area specific profile, such as the local school, chamber of commerce, community holiday or common activity. Etzioni argues that,

...communities congeal around such institutions. When these institutions of several communities are "consolidated" in the name of greater efficiency, communities are often undermined (Etzioni 1993, 136).

One example of ineffective institutional consolidation is when small rural communities are not deemed large enough to support schools, and the children are bused away or in many cases have to enter residential schools far from their home. The concern over school children leaving the community was the driving force behind the Oona River Community Proposal. This was an effort to create some local community based forestry economic development which would encourage families to move to the community which would ideally increase the number of school age children there and raise the support for local schooling (Mitchell-Banks, 1993).

Another example would be when resource management decisions are not handled by the communities themselves, but are managed by a regional or state level of government - at times to the detriment of the local community and potentially creating conflict. When community institutions are threatened, the potential for conflict develops,

The impact of timber harvest policies on local communities has long been recognized. Deforestation changes the possible mix of economic activities and has the potential to change watersheds and local climate. Clearly, communities can be and often are dependent on forest.

One of the early concerns about the timber industry was its unstable workforce that moved from lumber camp to lumber camp as the harvest frontier shifted. Social commentators decried the "depravity of rootless existence" connected with the industry. They saw the rough, marginal labour force as a threat to decent society, one that needed to be tamed and incorporated into stable communities where normal family life was possible (Power 1996, 134).

The decisions on where to locate the logging camps were often made by company officials with no relationship or affiliation with the communities that might be impacted by not only the decisions about the location of the camps but also the operation of the camps themselves. A recent example of this

was the frustration with one of the logging companies on the Queen Charlottes who were flying in food supplies to the camp from the Lower Mainland, rather than supporting the local stores and bakery who were able to meet their needs. There was frustration over the perceived lack of support for the local community and increased conflict was avoided when the operator of the camp ('off-island' management company) agreed to purchase some of the food supplies from local businesses.

CONFLICT

Conflict is a multi-faceted concept which can manifest itself in a variety of fashions. Conflict is a naturally occurring phenomena in society, appearing between individuals or social units. Conflict may be desirable if,

...there is to be personal, social or institutional change. However social groups, corporations, communities and interest groups in conflict need opportunities for resolution if there is to be legislative change or societal development. (Whistler Centre for Business and the Arts 1993, no page).

Social conflict can arise in a number of forms of which the most prevalent is competition,

Competition describes a conflict over the control of resources or advantages desired by others where actual physical violence is not employed. Regulated competition is the sort of peaceful conflict which is resolved within a framework of agreed rules. Markets involve competition, both regulated and unregulated. Other conflicts may be more violent and not bound by rules, in which case they are settled by the parties mobilizing their power resources (Abercrombie et al. 1986, 48).

Conflict underlies much of political theory, with Marxism and Feminism perhaps being the most recognized. Marxist theory argues about conflict between classes (Marx and Engels 1872) while Feminists study conflict between sexes (Hale 1990). People mistake harmony as being the absence of disagreement and conflict (Shaffer and Anundsen 1993) and thus conflict is often considered a negative phenomenon and something to avoid.

Conflict can also be considered as a positive phenomenon. Consider academia and Hegel's dialectic, in which 'synthesis' (a new thesis or concept) results from the conflict between 'thesis' (the

original idea) and 'antithesis' (another idea or explanation which challenges the original thesis). This ongoing comparison and contrasting of ideas leads to new premises, which in turn are challenged and improved upon.

Constructive conflict can also serve to increase the awareness of everyone's concerns regarding beliefs, values, needs, etc. (Moore 1995). It can lead to a greater awareness of the scope and scale of the challenges that need to be addressed. This is particularly valuable in land use decision-making (Sargent et al 1991) and the complexities and challenges related to such planning concerns including traditional or cultural use, carrying capacity or cumulative impacts (Redclift 1987).

Conflict can result from a number of situations, including but not limited to: constraints on flexibility (M'Gonigle and Parfitt 1994); incompatible activities (Mitchell 1991); interdependent players with different wants (Johnson and Duinker 1993); the clash of values and beliefs/perceptions (Dufour 1991); projections and fear (Foundation for Inner Peace 1975); problems and symptoms and how often they are mistaken for each other.

Conflict can often not be avoided, and arguably it can serve an important function in the planning or decision exercise. It is not conflict per se that can be a problem, but the nature of the conflict and how it is managed by the planners and decision makers that can lead to even greater challenges,

Conflict is commonly viewed by the participants as a crisis. A crisis mentality lends itself to destructive processes because people will rush to use anything they believe will relieve the conflict. Intervention techniques have been developed to help create constructive outcomes from crises, which may result from interpersonal conflicts. By controlling the perception of what is at stake in a conflict, a (negotiator) can prevent destructive outcomes. This ability to defuse conflict, re-frame the issues, and realistically analyse the outcomes is an important skill...

...we find it helpful to regard conflict as a set of divergent aims, methods or behaviour. The degree of divergence, determines the severity and duration of conflict and affects the likelihood of successful conflict resolution...

...Conflict resolution creates a state of uniformity or convergence of purpose or means; conflict management only realigns the divergence enough to render the opposing forces less diametrically opposite or damaging to each other. Conflict management does not

demand an identical aim, method, or process, as does conflict resolution, but simply one that is sufficiently aligned to allow unobstructed progress for the separate entities (Folberg and Taylor 1988, no page).

People mistakenly believe that harmony means the absence of disagreement and conflict. This always results in disillusionment, because the absence of disagreement is an illusion. Even the most mature and high-minded groups are bound to disagree. People are different no matter how similar they may appear in terms of age, gender, race, sexual preference, or social class or how committed they are to a common vision. These differences contribute to the health of a community, just as diversity gives strength and stability to an ecosystem. When a community suppresses differences to avoid the pain of conflict, it deprives itself of crucial information and the collective wisdom that comes from sharing bad news as well as good (Shaffer and Anundsen 1993, 290).

Studies of both community and community conflict present difficult challenges. Stein's 1960 book *The Eclipse of Community* discusses the increased interdependence and decreased local autonomy of communities that have been driven by the emerging social processes of urbanisation, industrialisation and bureaucratisation (Stein 1960). In this work, Stein addresses two fundamental challenges of community studies, the first of which is the difficulty of generalizing from individual community studies to community as a whole, there is a lot of questioning about how effectively individual communities serve as microcosms. In Vidich and Bensman's 1958 study of 'Springdale' they argue that it was not possible to talk about Springdale as a whole in relation to larger or 'mass society', it was only possible to talk about the relationship of particular groups. The second challenge Stein proposes is the need to develop an adequate theoretical framework within which to position and orient the community studied in the sequence and spectrum of change, which Bell and Newby (1971) refer to as a taxonomy.

These challenges remain for community studies but should detract from the importance of this sociological field. Community conflict and how it is managed is of particular importance in British Columbia. The communities are not homogeneous in either race, religion, linguistic groups, or economic activities. This heterogeneity also applies to between communities, as the communities across the province have diverse geographical settings, economic underpinnings and community memberships.

A linkage between many of the communities is their role in what is arguably still largely a staples economy, in which the hinterland or rural area engages in low value-added upstream production and resource extraction which is often fed into the more urban areas or metropole where high value-added manufacture occurs, the finished products are distributed and where the key decision making behind resource extraction and production are made. Until the 1950's, BC had the largest number of people living in resource communities in Canada, and even now some estimates have a quarter of the province's population residing in single industry towns (Barnes and Hayter 1997).

Single industry towns are notoriously unstable as a result of the local employment determined by ongoing fluctuations in international commodity prices, the status of the local resource employer which is determined by what is often international or extra-regional corporate decision-making, technological change and how this can quickly alter the profitability of an operation and the labour requirements, and the supply and quality of the natural resource stocks themselves which affects the profitability of the operation. A quarter of a century ago, Port Alberni could have considered the archetypal BC logging town and was the eighth most prosperous community in Canada while today it does not even make the top 100. Port Alberni is not alone in this change, and a number of mills have been shut down, down-sized, or reconfigured (often with significant job loss) around the province leading to a wide range of problems for the associated single industry communities (Barnes and Hayter 1997).

These recent changes have fuelled the issue of the importance of local economic policy. There is a growing realization of the failings of centralized (Victoria driven) policies and a growing neoconservatism (similar to the re-emerging focus on the local that Giddens and other sociologists have recognised) that stresses individual and community initiative. The growing interest in community forestry is one such example and the various proposals submitted in the provincial community forest pilot project reflect some of the various social structures, cultural complexions and influences of

organisations found in these communities. A simple example of this is that the community forest proposal for Prince George has industrial partners and there is more of an industrial focus than is the case for the Queen Charlotte community forest proposal which was submitted by the Islands Community Stability Initiative (only community partners). What does appear to be a unifying phenomenon is that community development is shifting away from the top-down government managed process to one which is more bottom-up, in which,

...localities and the private entrepreneur, acting singly or as a part of a locally-based coalition, are the primary agents for change. The consequence is that local development is now expressed in a wide variety of schemes in a wide variety of sectors. Whether these initiatives can offset the losses employment occurring in the mills is still unclear (Barnes and Hayter 1997, 8-9).

By learning to communicate effectively, practising cooperation, choosing effective leaders, and valuing the desired outcomes of community growth, the community becomes a purposeful and resilient activity (Whitmyer 1993). This permits the community to effectively address the change and challenges that inevitably occur. Addressing the conflict within a situation or a community and attempting to obtain a desired outcome involves planning.

The BC government made attempts at improved forestry planning with the Round Table, Commission on Resources and Environment and Land and Resource Management Plans (Commission on Resources and Environment 1995) - all of which have met with mixed success. All of these planning processes are either provincial or regional in nature, and not at the local level. There is ample documentation of conflict within each of these initiatives which received ample media coverage. Even in the Socio-Economic Assessments of many Timber Supply Reviews such as for the Arrow Lakes (Ministry of Forests 1994a) and Queen Charlottes TSA (Ministry of Forests 1994b) the issues of conflict or the potential for conflict as a result of timber availability and allocation are raised.

The planning processes of community controlled forest occurs at the local level. It is this local focus that is one of the potential strengths of community forestry that is addressed in the next chapter.

PLANNING

In their 1996 book on planning theory, Campbell and Fainstein argue that planning theory is a very difficult subject to define and explain. They provide four reasons behind this challenge,

First, many of the fundamental questions concerning planning belong to a much broader inquiry concerning the role of the state in social and spatial transformation. Consequently, planning theory appears to overlap with theory in all the social science disciplines, and it becomes hard to limit its scope or to stake out a turf specific to planning. Second, the boundary between planners and professionals (such as real estate developers, architects, city council members) is not mutually exclusive; planners don't just plan, and nonplanners also plan. Third, the field of planning is divided into those who define it according to its object (land-use patterns of the built and natural environments) and those who do so by its method (the process of decision making). Finally, many fields are defined by a specific set of methodologies. Yet planning commonly borrows the diverse methodologies from many different fields, and so its theoretical base cannot easily be drawn from its tools for analysis. Taken together, this considerable disagreement over the scope and function of planning and the problems of defining who is actually a planner obscure the delineation of an appropriate body of theory. Whereas most scholars can agree on what constitutes the economy and the polity - and thus what is economic or political theory - they differ as to the content of planning theory (Campbell and Fainstein 1996, 2).

A brief review of the evolution of planning is provided to present the context in which forestry planning, and particularly community forest planning attempt to take on difficult tasks. Planning arguably evolved at the turn of the century from several separate movements including: the Garden City, the City Beautiful, and public health reforms, all elements associated with the development of the industrial city (Campbell and Fainstein 1996). Planning has progressed through three stages.

The first stage of planning corresponds with the late 1800s - ca 1910. During these formative years, in which the concepts of planning originated, the pioneers of planning (Ebenezer Howard, Frank Lloyd Wright, Le Corbusier and Burnham, etc.) did not actually refer to themselves as planners. Planning was essentially an intellectual exercise, a new perspective or philosophy in reaction to the rapid industrialisation of cities. Howard, Wright and Le Corbusier in particular focussed on the challenge of the design of,

...the ideal city for the twentieth century, the city that best expressed the power and

beauty of modern technology and the most enlightened ideas of social justice (Fishman 1995, 19).

The second stage which corresponds to the period from ca 1910 to the end of the Second World War, was a period of the institutionalisation, professionalisation, and self-recognition of planning. This occurred concurrently with the rise of regional and federal planning efforts, the most famous of which was the federal planning undertaken by Roosevelt during the Depression years. Any formal government attempts to plan for and direct social change have been subject to controversy, and this controversy. Public and academic attention to planning received considerable attention during the 'great debate' of the 1930s and 1940s between the proponents of government planning, such as Karl Mannheim, Rexford Tugwell, and Barbara Wootton versus the free market defenders and proponents of laissez-faire, such as Freidrich Hayek and Ludwig von Mises (Klosterman 1985).

The third stage begins in the early postwar years. By the 1950s the debate appeared to resolve itself, and the great abstract issues of planning's desirability and feasibility had been replaced by more concrete issues such as what planning techniques to employ and what alternative institutional structures could be employed in achieving society's objectives (Klosterman 1985). This ushered in the current period of standardisation, crisis and diversification of planning (Campbell and Fainstein 1995).

One of the first planning theories was Comprehensive Planning, which was an attempt to co-ordinate the entire spectrum of multiple development and regulatory initiatives underway throughout a region or city. Success required not only a high level of knowledge but also the technological capability of using it. Comprehensive Planning essentially failed for two reasons: 1) the level of knowledge, analysis, and organisational co-ordination was impossibly complex; and 2) it presumed a common or homogeneous public interest but in effect addressed only the issues of the powerful and influential and ignored the poor and the weak (Campbell and Fainstein 1995).

Comprehensive Planning's impossible complexity led to the development of Incremental

Planning in which planning gradually addressed challenges in a step by step method, in which the steps were taken by small degrees with limited or constrained analysis in order to reduce the complexity. This could be referred to as essentially 'muddling through' the planning challenges (Lindblom 1959). This planning process by its very nature was slow and difficult to evaluate and chart.

The second failing of Comprehensive Planning, namely its alleged failure of not giving a voice to the poor and the weak, led to the development of Advocacy Planning. Advocacy Planning acknowledges that values are an inherent part of any rational decision-making process such as planning, and this requires that the values of the planner should be made clear, they should be affirmed by the planner and he or she should be an advocate for their values and beliefs (Davidoff 1965). This planning approach led to the planner no longer simply being a technician but also a champion or advocate. This transformation of the planners role raised the very serious questions of whether their values were appropriate, the potential for conflicts of interest and the dangers of a paternalistic planner.

The negative reaction to Comprehensive Planning continued in the 1970s and 1980s, and another form of planning evolved as a direct reaction to its perceived unmanageable complexity. Strategic Planning rejected Comprehensive Planning's impossibly general goals and instead focussed on the more "lean and mean" strategies that the military and business sectors had been developing (Campbell and Fainstein 1995). Another alternative planning approach known as Equity Planning evolved that was essentially a less aggressive or combative form of advocacy planning, which allowed planners to address the needs and interests of the weak and poor while working within the system (Krumholz 1982).

It would be premature to dismiss Comprehensive Planning because it is still very much employed by a large number of planners who continue to have faith in it and who see little strength in the alternatives. There has arguably never been a 'golden era' of planning, often associated with the early years after the Second World War, and the history of planning has certainly been subjected to a fair degree of revisionism (Campbell and Fainstein 1995). The danger of totally abandoning

Comprehensive Planning (a modernistic phenomenon) as a development of Post Modernism (which rejects Comprehensive Planning's institutional approach), is that there is nothing to be effectively gained by the deconstructionist approach. Beauregard views planning as stuck in a paradigm shift, essentially suspended over an abyss between modernism and postmodernism (Harper and Stein 1995).

Planning is obviously a multi-dimensional discipline, in which sociological, economic and environmental concerns are ideally all considered in a reasoned and balanced fashion. Our understanding of planning has greatly expanded over the last few decades, and there is a realization that planning is no longer a technical activity involving data collection, analysis and synthesis of physical plans and supporting policies. It has become far more complex, in which it now involves,

...a much broader set of human activities, encompassing the physical world and also the realm of public and social services. While retaining technical analytical and design components, planning has come to be seen also as intensely political and value laden (Wachs 1995, xiii).

Forest planning is particularly challenging as long time horizons, multiple use, economic and employment concerns have to be addressed. Forest Planning in British Columbia has a number of guiding principles,

To achieve the goals of responsible stewardship and sustainable use of forest resources, the planning process for provincial forest lands in British Columbia should be guided by the principle of integrated resource management, wherein all resource values, as well as social, economic, and environmental needs, are identified and considered.

Forest planning should reflect social values and incorporate clear commitments to conserve biological diversity, maintain the inherent productivity of aquatic and terrestrial ecosystems, and meet the needs of an economically viable and sustainable forest industry.

Public involvement in evaluating and assigning resource use, and in establishing integrated resource management objectives and priorities, should be identified as a key element in the planning process and should be facilitated by ensuring that opportunities for meaningful participation exist at all levels of planning (Ministry of Forests 1993, 9).

The background of the planner can have a significant impact on the success of the planning outcome. When facing a planning decision, the land use or community planner or decision maker acts

on a number of assumptions or norms - things that they believe to be 'true' or 'correct'. Assumptions are used to formulate a schema or model which serves as a means of representing the situation that they face. It is a representation of reality but at a more manageable and manipulable scale. Economists make assumptions about future economic growth or interest rates. Urban planners often make assumptions about housing density and transport requirements. Foresters make assumptions about site and species compatibility, and operational impacts on biodiversity.

Assumptions are powerful tools with which we attempt to address the complexity of a situation which presents itself. Like any powerful tool, when used correctly they can achieve very satisfactory results. When misused or misunderstood, the results can be far from satisfactory. These assumptions or norms play a critical role in communication,

In science, as in all other fields of communications, we must start somewhere, with explicit rules, norms, implicit valuations and plain assertions...But any increase in normative frankness should be accompanied simultaneously by an elimination of absolutisms, arrogance, and 'eternalism' with regard to validity in time and in social and physical space...To accept a particular norm as a fundamental, or basic norm, does not imply an assertion of infallibility nor claim that the acceptance of a norm is independent of its concrete consequences in practical solutions, It is *not an attempt to dominate or manipulate*. (Naess 1989, 69).

Assumptions are not only shaped by the situation and the elements that present themselves. They are also influenced on both a conscious and unconscious level by the training, education (schools are institutions) and experience of the decision maker. Experience can play a significant role in tempering theories and hunches. Someone who has a long history of work or decision making in similar situations or circumstances will often hold a more balanced and objective perspective which can assist in producing the optimal decision. This is one of the real strengths of having foresters as long time residents within a community - there is a history of previous environmental, economic, technical and social decisions to draw on and learn from. There is an understanding of the potential trade-offs associated with any decision and there is an appreciation of the impacts of the decision upon the various

community sectors and the community and the its culture.

FOREST MANAGEMENT AND PLANNING CHALLENGES

Of all the resource based industries, it is forestry that is the most complicated to operate within and to manage (Mitchell-Banks, 1994a). Industrial forestry, which in British Columbia has the ultimate aim of timber supply for mills, has evolved dramatically over the past century, with changes in scientific knowledge, economic and technological change, and evolving social values (Drushka 1992). There is a growing appreciation that,

Forests are interconnected webs which focus on sustaining the whole, not on the production of any one part or commodity. Trees, the most obvious part of the forest, are critical structural members of a forest framework. However, trees are only a small portion of the structure needed for a fully functioning forest (Hammond 1992, 15).

A brief list of some of these challenges is provided below.

Long Time Frames. Tree crops, or rotation times from harvest to harvest can vary from as little as six years to well over 150 years. Harvesting trees from the same area over a prolonged period of time is akin to farming - but the crops can take generations of 'farmers' to manage. Often the forester harvesting the trees is not aware of the entire history of the stand, the intimate understanding of the crop that a wheat or fruit farmer would have. Long crop times also increase the risks of disease, fire, windthrow, or changing social attitudes or government legislation regarding forestry management. Kimmins suggests that it is the comparison of the recovery of a harvested forest to a human life span that underlies much of the forestry conflict,

The difference between these social or individual time scales and both the natural time scales of forest ecosystems and the time scales of forest management is a major contributor to the conflict between foresters and some members of the public. Change in forest ecosystems might be accepted by these members of the public if the period of recovery were one or two years: a small fraction of a human life span. Thus, few people grieve the clearcutting of wheat fields, corn crops, or cabbages. These crops will grow

again next year. But where the recovery from change takes a significant fraction of a human life span, or several life spans, renewal may be perceived to take forever, and particular values will never be experienced and enjoyed again by individuals for whom disturbance-induced change has created a loss (Kimmins 1992, 23).

Future Uncertainty. There is no certainty when dealing with the future. It is difficult and usually impossible to control outcomes, and we can't anticipate and address all of the future's challenges. Increased societal (e.g. changing social values), global (e.g. climate change), and technological change (e.g. wood substitutes) merely compounds the future uncertainty. This is particularly relevant to trees, as they take such a long time to reach harvest age,

For example, we have found that we cannot predict some resource conditions that we care about, that goals change as people contest them, and that we need to learn as we manage resources and to quickly adapt our actions in light of unanticipated changes in resource conditions (Smith, 1997 419).

Economics. Economic concerns can be considered at a company or institutional level, sectoral level, state level or international level. Sectoral economic concerns can result from substitution, such as the growing interest in aluminum framing for houses. State level concerns can result from changes in taxation or trade policy - prohibitive taxation levels or boycotts by important customer countries can severely cripple the best business plan. The imposition of the Forest Practices Code in British Columbia (largely as a result of international market pressure) has resulted in a significant increase in forestry operational costs and administrative costs for both the forest licensees and the Ministry of Forests (Haley 1996).

Social Needs/Desires. Thirty years ago, no one would have anticipated the current scale of the environmental movement and the interest of the public in forestry. In Canada, the logger who was once revered (for their hard work and romantic lifestyle) is now reviled by some sectors of the public. Europe

has seen the rise of the Green Party and the 'Green Wave', and one of the greatest challenges facing the European Common Market is the addressing of social needs and desires related to the environment. Forestry perceived to be more ecologically friendly has been actively promoted by the Forest Stewardship Committee and GreenPeace International and has become a marketing tool for certain forestry products and companies, such as Sainsbury's in the United Kingdom.¹⁸

Problems And Symptoms. Misinterpreting these two planning considerations can have both short and long term implications. Symptoms are a result of the problem. Addressing the root cause or problem can either eliminate or remediate the symptom. Addressing only the symptoms and not the underlying cause or problems will not solve the situation - it will only mask it. An example of this is deforestation and potential siltation in watersheds. Providing an artificial or mechanical filtering system may create potable water (i.e. addressing the symptom) - but it does not address the potential cause of the drinking water problem. It is only by directly addressing the cause of the siltation (by perhaps no longer removing the trees which might lead to the sloughing and erosion of soil - perhaps even undertaking reforestation) that the siltation problem might stop and the symptoms of undrinkable water be successfully addressed.

Governance. This refers to the act or office of government, control or authority,

Governance can apply to the formal structures of government as well as to the myriad institutions and groups which compose civil society in any nation (Witty 1993, 27).

Political systems can change from regular elections or revolution or insurrection. Change can result from regional political agreements such as with Finland and Sweden (the latest countries to enter the European Union). International political pressure was largely behind the imposition of the Forest

¹⁸White 1997

Practices Code, an aspect of governance in British Columbia.

Technological. Advances in both mechanical and biological technology have resulted in significant changes in the forest sector. Mechanical harvesting, and mill processing innovations have led to lower unit costs and reduced forest sector employment. In British Columbia, technological change has expanded the extensive margin - increased the forest area that can be economically harvested (Pearse 1990). Future technological changes can not be counted on to continue this expansion of the economic forest area indefinitely. Satellite, aerial, remote sensing information and Geographic Information Systems (GIS) have exponentially increased the volumes of data to consider in making a decision.

Climate. Short and long term weather patterns also impact the forest industry. Short term weather concerns include droughts, which can lead to reduced growth or tree health and the death of seedlings. Long term considerations centre around concerns such as global warming - if it is occurring, and if so, what the impacts will be (Daly and Cobb 1989). Climatic warming and bud burst is just one of the relationships that foresters are investigating (Colombo 1998).

Knowledge. The amount of knowledge available and used has a direct influence on how successful the forest planning will be. Knowledge involves both data as well as an understanding of data relationships. The level of required knowledge for effective forest management is great, due to the complexity of the forest ecosystems, as well as the large and varied number of functions which the forests serve. This is particularly relevant with forests that interface closely with communities (Sanders 1994).

Resources for Management. How much money, equipment, time and staff is available to conduct the forestry planning and management? As with many things, generally the more the better, but this is not

a guarantee of success - skill level, education, attitude, and experience are crucial elements of management success.

Resources Considered. The more aspects of the forest ecosystem and uses considered, the more complicated the resource management. Some resources are reasonably easy to inventory and quantify, such as tree species, volumes and ages. Other resources, such as landscape value, recreational value or biodiversity are difficult to both define and quantify. What results is a basket of quantitative and qualitative resource considerations and challenges,

As a society, we have come a long way simply in recognizing that economic, environmental and social values should complement rather than conflict with one another. And we need a steady commitment to make those values sustainable (Commission on Resources and Environment 1995, 5).

Accuracy In Measurement. Information or data that is unavailable, inaccurate or not complete in time, can lead to poor or less-than-optimal forest management decisions, or even prevent them from being made altogether. The Timber Supply Review process is attempting to collect accurate information regarding timber inventory and land base concerns which influence the rate and levels of harvest. An accurate inventory of the provincial forests is a pre-requisite to effectively managing the harvest levels, silviculture and non-timber management concerns. One of the most significant recommendations of the first (Fulton) Royal Commission on Forestry was for a cruise of all crown grant timberlands (Fulton 1910). The impact of the Timber Supply Review is enormous, and some argue that it is the biggest change in BC forest policy (Hoberg 1996).

Accuracy In Evaluation. The successful evaluation of data is highly dependent on the quality of the initial data. Poor quality data is difficult, and at times impossible to overcome, hence the rule of thumb 'Garbage in, Garbage out'. New planning tools, such as Geographical Information Systems (often

referred to as GIS) have proven to be very popular, but there are concerns regarding errors that occur from the manipulation of the data and through the translation of one GIS software package to another.¹⁹ Timber harvesting estimates derived from Linear Programming models can have problems related to infeasible harvest schedules, overly optimistic objective function values, and the need to strictly satisfy all constraints included in deterministic model formulations (Bare and Mendoza 1992). The recent Queen Charlotte Timber Supply Review was challenged by local residents, who felt that the level of cut was too high as a result of inaccurate inventories, and a consultant was brought up to conduct a review and seek input regarding the process (Brash 1996, 1).

Accuracy in measurement and accuracy in evaluation are closely linked. Inadequate measurement and/or evaluation can create not only technical (e.g. incorrect modelling outputs) but also political challenges (e.g. loss of credibility or public trust) in the planning process. Planning is always carried out in a setting of uncertainty, but planners can reduce risk through efficient planning measurement and evaluation efforts and achieve what is considered to be an acceptable level of risk. Planning undertaken with no regard to risk leads to some serious equity issues in that poor planning can lead to some costly legacies. Tools are only as good as the information and the person using them; both of which are often overlooked in deciding how to approach a land use challenge.

Carrying Capacity. To date, this cannot be measured. The concept suggests that the earth has a limit to how much activity or human impact that it can withstand before showing signs of degradation. Hardin describes carrying capacity as 'the fundamental basis for demographic accounting' (Hardin 1991). Conventional economists and planners have not given this concept much credence when it is applied to human beings (Rees 1996). Carrying capacity is a relatively new concept - and one which indicates that

¹⁹Discussed at the 1994 European Forest Institute Course 'Integrating Environmental Values into Forest Planning'.

there are limits to what can be done. Each ecosystem has a specific carrying capacity for each population,

A hectare of grassland, for instance, may support two coyotes, ten deer, and thousands of mice. Carrying capacity fluctuates from year to year depending on climate and other factors, but most organisms do little to change it. Humans are an exception to that rule: advances in tool making, agriculture, industry, and medicine allow us to extend the limits set by nature - to extend the carrying capacity (Chiras 1988, 110).

Cumulative Impacts. Related to carrying capacity, the concept of cumulative impacts suggests that over time, small or short term impacts can add up, resulting in unexpected environmental damage. This gradual build up of impacts is not always obvious or measurable. Some people, for example, are arguing that the wounded and dying trees in the American Adirondacks, suspected of suffering from acid rain, have taken tens of years to reach the stage where their poor health has become noticeable. Others are arguing, that damage to Canada's Sugar Maple plantations, is not attributed to acid rain, as once thought, but a combination of factors, including: drought, frost, disease, disturbance, ozone - and possibly acid rain. Long term exposure to chemical emissions from industrial sites has been demonstrated to induce chemical changes in trees with the potential to reduce the strength of the wood and decrease its suitability for either lumber or pulping (Takar et al. 1998).

Complexity. Simple environments or habitats are easier to observe and study than more complicated ones. Unfortunately, studies are beginning to suggest that simple habitats are also more susceptible to environmental damage than more complicated ones. The more intricate or complex the ecosystem, the more likely it is to be stable (Camp 1997). The complexity of nature has led to much conflict within both the scientific and lay communities about environmental degradation and its various potential causes, with some referring to the theories as 'hysterical' (Chase 1995).

Equity. Impartial, fair, even-handed treatment. This applies to people alive today, in that decisions have to be made and any decision has an impact on people. Equity can also apply to our descendants, as any decisions we make today will have an impact on those that follow us (World Commission on Environment and Development 1987). Where different cultures may exist in the same area, then cultural equity has also to be considered. Different cultures have different relationships with the land and the forests (Witty 1993). This point is often argued by Native Indians in Canada (Notzke 1994).

Equity in forestry can involve addressing timber concerns, such as the extent and timing of harvesting, species planted, and management techniques. More importantly, equity in forestry also has to address the non-timber concerns that the public also hold important, such as trapping, hunting, fishing, recreation, tourism, medicinal and food gathering, spiritual areas, existence and option values, and ecological processes.

Power And Authority. Often mistaken for being the same thing, power and authority are in fact quite different. Authority comes from being in a certain position, whether you are put there (e.g. a forest executive) or elected (e.g. mayor of a community). Power comes from having the ability to control or influence people. Power can arise from position, but it can also stem from age and wisdom (e.g. some cultures honour their elderly), from possessing information or knowledge, from being an effective organizer, or from being an effective public speaker whose speech can influence how people think about an issue. Power can also result from position such as the secretary to a president of a company - if the secretary does not want you to see or speak to the president, it is often very difficult to work around them.

These forestry challenges listed here are far from complete in both scale and scope. But, coupled with the complex concepts of community, culture and conflict, forestry management and the impacts on a community lead to risk. Risk is what influences any decision making process, particularly when

the time frames involved are long and it is difficult to make accurate predictions of the future.

SEVEN STAGES OF CONVENTIONAL PLANNING

Forest planning, whether it is for an industrial application or a community forest operation needs to follow a predictable sequence of steps. Conventional planning, which attempts to make the risk 'manageable', often follows seven stages (Government of Ontario 1989, Mitchell-Banks, 1992). Each one of these seven planning steps can be influenced by the assumptions or expectations of the planner. These assumptions or expectations are in turn shaped by the culture, community, conflict and the education, training and history or experience that the planner has accrued or experienced. The seven stages are:

1. Stage One: Determine Problem Exists.
2. Stage Two: Determine the Evaluation Criteria.
3. Stage Three: Generate Alternatives.
4. Stage Four: Evaluate Alternatives.
5. Stage Five: Select the Alternative.
6. Stage Six: Implement the Alternative.
7. Stage Seven: Monitor the Alternative.

Industry and communities may have made adjustments to accommodate the symptoms of successful or failed policy, and efforts to address the problem may lead to these industries or communities having to make even more adjustments. Often the policy reaction is to an earlier policy attempt or initiative that failed or was not as successful as anticipated. Over time a 'policy accretion' (like the layers of a pearl) can develop, in which additional policy is successively appended to failed policy to address the inadequacies. The result can be a myriad of conflicting or non-mutually supportive policy and the related regulations and consequences.

Planners or decisions makers can often fall into the trap of making fewer but larger scale decisions in order to simplify their job or tasks. Schumacher addresses this in his essay on 'A Question of Size', in which he wrote,

We always need both freedom and order. We need the freedom of lots of small, autonomous units, and, at the same time, the orderliness of large-scale, possibly global, unity and coordination. When it comes to action, we obviously need small units, because action is a highly personal affair, and one cannot be in touch with more than a limited number of persons at any one time (Schumacher, 1973: 69).

Forestry planning on a community scale favours this freedom and order.

FIVE FEATURES OF SUCCESSFUL PLANNING

Forestry planning has its greatest chances of success if it incorporates the following five features (Government of Ontario 1989). It must be noted though, that systematic planning does not eliminate error, it simply reduces the probability of it occurring - and can aid in the management of various outcomes.

1) Consultation With Affected Parties. The *Ministry of Forest Act* and the *Forest Act* both state that the Ministry of Forests is responsible for making decisions that will maximize provincial and social benefits for both the short and long term (Vance 1990). Problems arise though in the efforts to get the public involved in public participation processes, despite having concerns about the issue or having valuable information, insights and opinions to offer,

The Ministry of Forests assumes that responding citizens are mobilized, have clear ideas of where their interests lie, and can provide information in a manner that is informed, relevant, consistent and in a language and structure that is understood by the Ministry. But what happens too often is that the process looks mysterious and intimidating, and people do not know where to start to turn for information (Vance 1990, 4).

Public involvement in forestry planning has received a lot of research and government attention as a result of the growing conflict within the forestry sector. Higgleke and Duinker reach seven conclusions in a 1993 study on public participation in Canadian forestry management,

1. The need for public involvement in forest planning is indisputable. Conflict around forest management is rampant, and sound public involvement can reduce or even prevent conflict.
2. The experience of public participation in forest planning in Canada is sufficient to

indicate promising techniques and approaches.

3. There are no valid excuses for not proceeding with public involvement in forestry planning.

4. Engaging in public involvement comes with considerable risk. Happy solutions cannot be guaranteed. However, the risks of not involving the public in forest planning are indeed much greater, are to be avoided.

5. Simply conducting public participation is not a guarantee of success, even if all the correct measures have been taken. For real success there must be openness, honesty, and a willingness to change the attitudes and actions.

6. One way to ease into public involvement is to first use the internal public. If all employees are included in the process, a wide cross-section of public opinion and concerns can be identified and dealt with in a non-threatening and non-confrontational situation.

7. There is no single public involvement technique which can be successfully applied to all situations. Rather, effort must be directed at getting to know the public and designing a comprehensive public involvement program which best suits the public and the issues (Higgelke and Duinker 1993, iii).

2) Consideration Of Reasonable Alternatives. The lack of successful public input reduces the body of information that is considered in the planning process. The 'Open House' process seeks public commentary on plans that have already been drawn up. In other words, the planning work is largely complete and public input was not a formative element in drawing up the alternative forestry planning strategies. This is very much a reactive planning process, in which the forestry planning has followed a 'DAD' strategy - decide, announce and defend.

Another problem is that much of the 'public' input that does reach the Ministry is generated from the forest industry,

Forest industry representatives, including the Council of Forest Industries, spend millions to prepare and present information which describes their position in the best light in order to maximize their economic gains (Vance 1990, 4).

Other interest groups, such as Environmental Non-Governmental Organizations, special interests such as recreation and tourism and the ranching community also provide input and commentary with

biases of their own. Collectively this leads to a body of information that is often subjective, has various biases and perspectives and is multi-objective. This diverse set of objectives can be useful for the planning process if the planner and decision maker are open to undertaking a balanced review of all the sides of the argument and then choosing the best course of action. The danger of interest group planning is that the planner or decision maker are either too busy, lacking in insight or capacity, or simply biased. What can result is information being supplied by lobbyists that is subjected to no or inadequate review before being applied to the planning process.

3) Consider All Aspects Of The Forestry Environment. Timber and non-timber concerns, human and non-human impacts, above ground and below ground considerations all have to be considered. The Ministry of Forests is charged with ensuring that there is an adequate fibre flow to meet the needs of the licensees. This can lead to a timber bias, in which non-timber values are not considered as important as maintaining the flow of timber - this was demonstrated with the impacts of the original Forest Practices Code leading to a reduction in timber harvesting that was deemed unacceptable by the government.

Not only is there a timber focus in forest management, but often that focus is based on similar schooling and experience,

In many cases the people in the Ministry and in the forest companies who maintain the lines of communication have gone to school together, belong to the same professional association and have worked together at senior levels. The views expressed are familiar and are based on economic arguments which make financial sense for the companies. It is easy to understand that when good relations have been fostered over many years, new ideas, points of view and priorities would take time to gain acceptance (Vance 1990, 4).

4) Systematically Evaluate Net Environmental Effects. Weighing the advantages and disadvantages of various alternatives, with the net environmental effects remaining after mitigation or enhancement has been considered. Forestry planning is a complex process that has to address multiple-resource management,

First we must relate stand management activities to the development and output of resources for the entire forest. Secondly, we must cope with the simultaneous production for many different resources. Understanding the principles of multi-resource management is therefore difficult in itself. But understanding the principles, though essential, is not sufficient to ensure good management - every forest is unique, with its own set of problems determined not only by the dynamics of the physical resources of the forest, but also the social and economic environment in which its managers operate (Tanz and Howard 1991, 128).

Considering the multiple inputs and outputs associated with forestry planning can be greatly assisted by planning models, decision support systems (Tanz and Howard 1991) and cooperative or collaborative decision making (Johnson and Duinker 1993).

5) Provide Clear, Complete Documentation. Records of why the decision was made, what were the decision variables, what was successful, as well as what was not, are very valuable planning information for future forest decision making. One has to be mindful of the iterative or parallel nature of planning, as effective planners will reconsider a previous 'given' or 'assumption' if they come across contradictory evidence. Stakeholder or public involvement in forestry planning requires better documentation which outlines the planning and decision making process, the notification and rationale of forestry planning decisions (Duffy 1991).

Any planning exercises, especially one involving forests in environmentally sensitive or high use (such as peri-urban) areas can potentially lead to conflict. Incorporating Schumacher's 'Question of Size', as with a small scale forestry management unit such as a community forest, addresses the scale of both physical geography and population. Addressing each of the previous five features in planning will reduce the uncertainty associated with a forest plan and some of the perceived risk and projections.

Particular emphasis on consultation with affected parties and consideration of reasonable alternatives will permit stakeholders to share their concerns, as well as provide input on various alternatives - some of which may not have been previously considered. Obviously when dealing with people, the importance of community and culture have to be closely considered to address the potential

of conflict.

DISPUTE RESOLUTION

Disputes can not only arise while the planning effort is underway, but they can also arise once alternatives are identified or a decision is making. Disputes can occur in both industrial and community forest management situations.

A frequent and universal mistake is bargaining or negotiating over positions (Fisher et al 1991). This involves taking a stand or position in a dispute, and then going to great lengths to defend it. The politics of being correct or the consequences of being wrong can drive this stand taking or positional defence. If, for example, there is a dispute between logging and trapping, and one person states that he/she is only for logging, and the other states that they are only for trapping, there is a self-imposed impasse, that cannot be easily resolved. At times, people can get so involved in their positions, that they can not work their way out of the dispute, and end up 'painting themselves into a corner' or 'tying their own hands'. This can lead to a dispute being either prolonged or at times being created needlessly.

There are four steps (Fisher et al 1991, Whistler Centre for Business and the Arts 1993) that can be taken to attempt to avoid or minimize disputes:

1. Separate the people from the problem;
2. Focus on interests, not positions;
3. Invent options for mutual gain;
4. Insist on objective criteria.

Step One: Separate The People From The Problem. Culture can often frame the issue being addressed and the structure of the community along with culture can influence the nature of the conflict. 'Champions' often arise to lead or act as spokes people for a concern or potential conflict. The spokesperson is often not the problem, but rather someone who is concerned about the problem.

Step Two: Focus On Interests, Not Positions. Sometimes, it is only the weight or level of

importance given to an issue that separates people. This is easier to see when positions are ignored, and interests focussed on. Culture and community can make this a challenging exercise, as to understand the interests, the planner often has to appreciate the culture and community within which these interests arise.

Step Three: Invent Options For Mutual Gain. If options for mutual gain are not considered, a win-lose situation can result, leading to the loser feeling resentment and possibly suffering a blow to their reputation and 'loss of face'. This does not encourage cooperation in the future when another dispute may arise. Culture and community play important parts here as well, as this can assist the planner in understanding what are viable options to investigate.

Step Four: Insist On Using Objective Data. By insisting on using objective criteria, the people involved in the dispute have a common set of data and standards to work with. Objective data is data that can be measured or defined/explained accurately. Often it is not possible to have data that is 100% accurate, due to sampling error and background variations (such as random animal movement, etc.). Data that is rigorously gathered does have limitations, but these are fewer and less potentially damaging than data that is not systematically collected. Knowing that a particular valley is the home to 10 grizzly bears is much more valuable and useful than just saying that the valley has 'lots' of grizzlies. Objective criteria can be very important when trying to evaluate consequences to decisions, and evaluating trade-offs.

The use of objective data can be a particularly challenging consideration in land use and forestry planning. Throughout North America, Native Indians or indigenous people have lived for thousands of years and they have passed on their natural resource knowledge from generation to generation by word or mouth. They have an oral tradition of history, not a written one. Traditional Knowledge is often very rich in qualitative information (what animals or plants are found in an area), but often not very rich in quantitative information (how many animals or plants, how often, etc.). There is extensive study and discussion underway on how to combine these data sources, as they can often complement each other and lead to a more informed decision than when only one source is utilized (Nakashima 1990).

While the Ministry of Forests engages in a number of public consultation processes, the role of non-governmental organizations, interest groups, individuals, and others without legal contractual standing are limited to advisory status only. It is the fear of losing control that appears to be the primary impediment to the use of shared decision making in the Ministry of Forests (Nixon 1993). If communities were to start devising some experiences in shared decision making, participate actively in a decentralized resource control system, then there would be a new role and likely that of reduced authority for the Ministry of Forests. Shared decision making can reduce conflict,

Let us be clear on the conceptual difference between planning and dispute resolution - *there is no difference* [emphasis theirs]. Forest planning processes are, by another name, also forms of dispute resolution. The stages of a credible forest planning process bear striking similarity to those of successful dispute resolution methods. The prime difference is that forest planning is traditionally done by bureaucrats sitting down with forest licensees such as MacMillan Bloedel and Fletcher Challenge. The concept of shared decision-making is nothing more than, first adding a set of administratively fair procedures to guide the evolution of forest planning, and second, adding to the process all participant interests rather than leaving the decision-making or planning effort exclusively in the hands of public officials and licensees (Nixon 1993, 57).

The involvement of communities would create a more democratically fair public participation process. The fair process would increase the likelihood of the participants achieving fair agreement and the fair agreements would lead to increased social and economic stability (Nixon 1993). This in turn would further promote cooperation.

COOPERATION

Many societies place great value in competition. Emphasis is placed on winning or coming out ahead. Competition is a driving force for much of our capitalist world, in which market efficiencies are supposedly achieved through competition. Economists argue the ideal form of competition is 'perfect' competition, in which every producer is a price taker, and no one producer can impact the market significantly.

Perfect competition may at times be a very desirable form of conflict, in that you end up with an economic form of 'survival of the fittest'. However, we do not live in the 'perfect competition' world of economics,

In reality, the economy is dominated by a very few large corporations which have access unavailable to smaller companies to resources, transportation, and means of marketing goods; and government acts and has always acted as a support for these corporations. There is no actual secret here; indeed...a Canadian prime minister (Trudeau) went out of his way to inform Canadians in 1976 "the free market system, in the truest sense of the phrase, does not exist in Canada" (Marchak 1979).

In the forest sector, there are a number of major industrial players either on a company or national basis who create an oligopoly whose decisions and policies can impact significantly on the market, economy or state of the forest itself,

Corporate concentration in the forest industry of British Columbia has been accelerating as time goes by. No doubt it is one of the major concerns of the people of this province, as the topic appeared in nearly every brief at forestry hearings [to do with the Forest Resources Commission] held across the province between 1989 and 1992. In nearly all other forest countries, corporations have far less control of forest land. Most of the real concern about corporate control of the forests stems from the lack of first-class management by companies holding tenure over vast areas of public forests. There were high hopes for good management when the first TFL was introduced. These TFLs were granted in perpetuity, together with the firm responsibility for management of silvicultural programs; in exchange for the silviculture work, the companies would be compensated by low stumpage. While some companies have behaved responsibly, others have done little except log the very best valleys (Shelford 1993, 136).

The small scale forestry producer, whether as a single private owner, or community forest controlled by a municipality or number of families, can chose to either buy into the concept of 'perfect competition', or chose an alternative strategy - that of cooperation. The small scale forestry producer cannot expect to compete 'head to head' with the large scale forest operators. In fact, the small scale operator finds themselves in a classic 'prisoner's dilemma' (Axelrod 1990, Ostrom 1990).

Axelrod was interested in this dilemma, and set up a strategic competition to see if cooperation was a strategy that would work in a competitive world. Two competitions based on mathematical models were held, and both times his co-operative strategy of 'Tit for Tat' proved to not only be the winning

strategy but also the most robust over time (Axelrod 1990).

Cooperation can serve as an excellent competitive strategy to raise all the issues that have to be addressed and considered in a forestry management situation. It is particularly beneficial for a community forest, where there is often an over-riding common aim or goal. In fact, the etymology, or derivation of the word competition, supports this. Competition is derived from the late Latin word *competere*, which means to strive together, to meet, come together, agree, originating from *com*-together and *petere* to seek (Collins English Dictionary, 1991).

Axelrod suggests four elements of social structure (community) can help bring about cooperation and increase its chance for success. These elements are: labels; reputation; regulation; and territoriality (Axelrod, 1990).

1) Labels. Labels are a means of identification, so that you can recognize where someone comes from, and whether you have dealt with them before. People with similar labels form a type of community. Race can act as a label, as can traditional costume, language or dialect and customs such as certain cultural activities.

2) Reputation. Reputation refers to the history of behaviour that someone has. If known, this can help others to anticipate how they might behave in the future. Reputation assists in the prediction of outcome. Smaller communities increase the likelihood of knowing the residents and their reputations.

3) Regulation. Regulation refers to rules or discipline, so that everyone knows what is, and is not allowed. Governance Successful property rights, especially private or common property regimes have regulation.

4) Territoriality. Territoriality refers to the sense of place or territory that a group of people might have. Territoriality creates a limit about the area to be concerned with, it forces the players to focus on a spatial area, or particular market or policy sector.

Something that has to be considered in reviewing these four elements is whether the selection of

membership in the community is imposed or self determined. Communities occur in a wide spectrum of sizes, homogeneity or heterogeneity and duration. This research surveys UBCM communities whose membership is determined by legal means, i.e. residence within the municipal or regional district boundaries. As such, community membership is imposed as a result of the location of your home and results in a wide spectra of sizes and degrees of heterogeneity.

There are other types of communities that can exist that are often blind to UBCM boundaries, such as religious communities or communities associated with professions or activities (such as the academic community or the arts community).

CHAPTER SUMMARY

This chapter addressed the third thesis objective - to examine the interrelationships between community, culture and conflict and how these influence planning. The second part of this objective was to examine the challenges and risks of forestry planning and how a formalized planning and dispute resolution process with public and community participation can be used to assist in the planning process.

The concepts of community, culture and conflict are strongly interrelated. Community is a term with significant symbolic value and is often defined by boundaries and membership, with symbols acting as a binding agent within the community. Communities have a culture, with the culture acting as a series of referents or community glue that can be closely tied to symbolism - particularly to the landscape(s) associated with the community. Institutions, which are culturally well-established behaviour patterns, relationships, laws, customs, practices or objects, are also important to communities.

The potential for conflict arises when community symbols, landscapes or institutions are threatened. Conflict typically has a negative connotation attached to it but can be useful in raising awareness and understanding about an issue. Successfully addressing conflict involves effective forestry planning which is inherently complex for a number of reasons including long crop rotations, the

complexity of the ecosystems and the multitude of functions and needs that the forests provide to an ever changing society and its values and norms. Forestry planning that explicitly incorporates community concerns, goals and needs, becomes even more complex.

The next chapter explores community forestry, and how it can serve as an effective interface between the complexities of community planning and challenges of forestry.

CHAPTER IV

COMMUNITY FORESTRY AS AN INTEGRATED PLANNING TOOL

CHAPTER OVERVIEW

This chapter addresses the fourth, fifth and sixth thesis objectives.

The fourth thesis objective is to investigate community forestry in an international setting. Community forests occur across Europe, Africa, India and the neighbouring countries, Asia, Mexico, South and Central America. Community forestry varies widely in the international setting with physical and cultural settings, socio-economics and governance all playing determining roles. There is a particular emphasis on Sweden (due to social and economic similarities to Canada) where there is a long and successful history of community forestry and the research addresses the roles of community forests and management strategies and structures.

The fifth thesis objective is to conduct a Canada wide survey to determine the levels of interest and awareness in community forestry. A national survey was conducted and the results are reviewed with community forest initiatives in Quebec, Ontario and BC emphasized. Particular attention is paid to the three existent community forests in British Columbia as well as four well known community forest proposals.

The sixth thesis objective is to investigate community forestry as an integrated planning tool and how it can assist in establishing more sustainable forestry. This section of the thesis addresses how community forestry can serve as an effective interface between the complexities of community planning and the challenges of forest management and is suggested as a potential vehicle to address sustainability concerns.

COMMUNITY FORESTRY IN THE INTERNATIONAL CONTEXT

Community forestry is not a new concept, as it has been practised in Europe - particularly Sweden, Finland and Germany (Dunster 1989) as well as Switzerland (Baerg 1991) for a number of centuries. It has also been practised in Nepal, China, Thailand, Indonesia, Papua New Guinea, South Korea, Japan, India, Pakistan, Sri Lanka, Niger, Sudan, Somalia, Kenya, Mexico, Guatemala, Bolivia, Peru, Brazil, and the Honduras (Peluso et al. 1994). Indeed, community forestry has been used in most forested, developing countries to some degree.

Community forestry throughout the world varies in how it is practised, with culture, geography, socio-economics and the degree of decentralised resource control some of the factors influencing the forms that it takes on,

Some of these community forests are managed for a mix of outputs, including, lumber, water quantity and quality, fish and wildlife, and recreation. Others are managed primarily for watershed values, or recreational values, with timber production being a secondary output, derived once the primary goals have been met (Dunster 1991, 2).

A good example is the city of Zurich in Switzerland where communal forests have been managed for centuries, with considerable involvement and strong support of the people, to produce a combination of industrial and other outputs, to protect fragile mountain habitats, and to control avalanches (Baerg 1991, 25).

Community forestry, which is often referred to as social forestry, has been used extensively to address the major population increases and the resultant land use pressures particularly in the tropics (Baerg 1991). India, in particular, has had a large number of social/community forestry projects with extensive research and monitoring undertaken (Peluso et al. 1994). In fact, in all of the states of India, production forestry has almost given way to some form of social forestry - often referred to as Joint Forest Management (JFM),

The shift to JFM also reflected growing recognition that the earlier programmes had not kept forests from being exploited to meet local needs, and that the state does not have the capacity to control use and conservation of such resources without the cooperation of those who use them. The new initiative, therefore, built on a number of state-or project-level initiatives of the 1970s and 1980s that had incorporated such a strategy,

with some apparent success (Arnold 1998, 27).

Social or community forestry has been used as an international development strategy in many developing countries. The three major aims of social forestry are,

1. the provision of fuel and other goods to meet basic needs at rural household and community levels;
2. the provision of food and environmental stability necessary to sustain such food production; and
3. Generation of income and employment in the rural community (Baerg 1991, 26).

This community controlled production of multiple outputs, all with a tree or forest relationship, is often embedded in complex resource and social systems influenced primarily by mankind or human factors (Baerg 1991). There is a cultural element that has to be addressed, as the 'web of significance' that Geertz (1975) refers to relates very much to the relationship with the forest. This web or relationship management is by default multi-disciplinary in nature, as it has to address important social, economic, technical and environmental dimension. The spectrum of communities and their requirements also necessitates that forest management strategies be specific for each set of community needs (Baerg 1991). There is no generic community forest management plan that meets the multitude of community and forest types.

The cooperation inherent in community forestry has to be tailored to the individual culture or 'web', socio-economic situation and the type of forest land base. Furthermore, this management strategy has to be flexible to accommodate change as human cultural behaviour is noted for its flexibility (Berkes 1989a). The most important factor of community forestry success is the explicit recognition of the need to provide communities with the opportunity to plan and implement community based decisions that reflect the community wishes (Dunster 1991).

The various roles of community forests is well exemplified in Sweden which has a culture, geography, political system and a socio-economic system which is much more familiar to that found in Canada than is the case for India, Japan or most of the other community forest countries. These

similarities drive the decision to focus on the community forestry found in Sweden rather than in other less similar countries.

Community Forestry In Sweden

In Sweden there are both common forests and community forests. The common forests operate under the collective ownership of a number of landowners, while the ownership of community forests is vested in the municipality or county government, or with the Lutheran church.

Some municipal and county community forests resulted from the activities of Forestry Societies, the first of which was established in 1903.²⁰ These societies would buy up land needing attention, and put together the resources (financial, equipment, supplies and people) required for afforestation. After rehabilitating the lands, the Forestry Societies would hand them over to a municipality or county to administer.²¹

The Lutheran church historically wielded great power in Sweden, and in the Middle Ages held very large estates, often attached to monasteries, that gradually were sold off or taken away with the long process of democratization and reduction of power. A similar reduction in land and power occurred with the crown and nobility. The Church of Sweden (Lutheran Church) is still an influential institution, particularly in the more rural areas. The Church forests comprise approximately 380,000 ha. This is land which has been set aside in each parish to pay the priests' salaries. The Church forest land is comprised of approximately 2,400 units, with the average size of a unit being 155 ha (Nilsson 1990).

The commons and community forests are manifestations of the communalism or reliance on the commons that played a critical role in Swedish history - in fact one Swedish historian argues that the

²⁰Andersen 1998

²¹Andersen 1998

history of Sweden is the history of her commons (Moberg 1972). The residents within a particular municipality, county or church do not have any special or exclusive rights within the community forests, this is in contrast with the commons, where specific individuals or families may have specific hereditary rights to harvest various types of game, have access to timber for lumber, or access to firewood.

Today, this history of reliance finds expression in the law of common access. As in Norway and Finland, this common access prerogative, permits anyone to wander freely in the woods, meadows and fields to hike, camp, and pick wild berries, mushrooms, most wild flowers, etc.

County and municipal community forests are very numerous, and have long played an important role in the supply of timber products and fuel for the local residents, as well as serving as a source of employment and recreation. Approximately 360,000 ha of forest land is owned by county and municipal authorities (Nilsson 1990).

Today, the community forests in Sweden serve a multitude of policy goals for the municipalities, with the location of the forest and the socio-economic status of the municipality playing a role in determining the forest management philosophy. For example, the city of Norberg, as with many Swedish municipalities, has a great deal of forest land within its boundaries. Norberg's forest contains 30,000 ha of forest land, and along with timber harvesting, provides products such as Christmas tree harvesting, large and small-scale production of firewood, and the supply of traditional fencing modified for modern housing (Hillring 1993).

Community forests in the north, where the population is smaller, and the economy is not as diversified away from forestry into electronics, manufacturing, etc., as in the south, are utilized for timber and local employment to a greater extent than the community forests found further south (Jonsson 1994).

Southern community forests emphasize more recreational, wildlife and aesthetic aspects in their management plan - and these aspects are increasing in importance as a reflection of the changing

perceptions and needs of the Swedish public.²²

There are two primary and common policy aims of the community forests throughout Sweden. The first policy aim is using the community forest as an area for recreation for the community residents. Cross country skiing during the winter, mushroom and berry gathering in the summer, walking and hiking during the spring and fall, are just some of the activities which the community forests address.

The community forest is an important recreational area for an increasingly urban population who desire to be able to enjoy the outdoors a minimal distance away from their homes. Indeed, the community forest in many Swedish cities literally begins at the edge of many a householder's property (Jonsson 1994). The recreational aspect of a community forest is common throughout Scandinavia, especially in Finland,²³ Sweden²⁴ and Norway.²⁵ The city of Oslo, Norway, has 17,500 hectares of forest closely surrounding the city, which acts as an indispensable urban playground (Norwegian Forest Society 1991).

Community forests can often be directly accessed from within the city or municipality, with green corridors extending into the urban centre. This was observed (during the researcher's 1994 European community forest tour) in Stockholm, Sundsväl, and Umeå in Sweden, as well as in other Scandinavian countries - Joensuu and Helsinki in Finland, Drammen and Oslo in Norway.

The second policy aim is using the community forest as a land bank for urban expansion. The community forest actually serves two purposes, the first is acting as a green barrier or green belt to expansion and thus directing new or re-development into specific land areas that have been set aside for

²²Pettersson 1994

²³Hyttinen 1994

²⁴Pettersson 1994

²⁵Gimse 1994

that purpose.²⁶ This serves the purpose of encouraging densification, lowering municipal servicing costs and at the same time controlling urban fringe growth.

The second purpose of the community forest is as a reserve or land bank, so that land from the community forest can be released over time in small blocks to permit continued urban growth. Many community forests have a policy that for every hectare released from the community forest to urban development - a replacement hectare has to be purchased, resulting in no net loss to the community forest area.²⁷ Similarly, land areas comparable in size and quality can be traded to either consolidate the community forest, obtain additional land in a specific area or of a specific quality, or permit development in an area not previously zoned for it.²⁸ The green barrier function of the community forest can occur in other Scandinavian countries as well - with good examples being found in Joensuu and Helsinki in Finland, Oslo in Norway,²⁹ and Drammen, Norway.³⁰

There are 286 municipal governments in Sweden, and along with the county governments, they play an important role in governance and the provision of social services. According to Lidestav's 1989 survey, it is estimated that there are approximately 340,000 ha of managed community forest land, not including conservation areas or parish forests in Sweden. Approximately 82% of the municipalities owned forest land (Lidestav 1989) resulting in an estimated 235 municipal community forests with an average land holding of 1,447 ha. In 1990, local government expenditure in Sweden accounted for 23% of GNP, with municipalities accounting for 2/3 of this, and county governments making up the remainder

²⁶Pettersson 1994

²⁷Pettersson 1994

²⁸Pettersson 1994

²⁹Gimse 1994

³⁰Gaustad 1994

(Svenska Institutet 1993).

Community forests have played an important role in the municipal and county economies. As a local government revenue source, this can lead to political conflict over how much timber is to be harvested from the community forest, as well as which areas and over what time frame the timber is to be harvested.³¹ The potential to generate revenue from the community forest for municipal coffers can create tension between municipal politicians and community forester, in that some of the politicians are keen to access the potential revenue that timber harvesting can provide, but do not wish to bear any responsibility for impacts on the community forest.^{32,33} This has resulted in political leaders taking a public stand on 'saving the trees' in the community forest, but when in discussions with the community foresters the politicians are more aggressive in proposing higher harvesting levels than the community foresters would recommend. This occurs in other Scandinavian countries as well.³⁴ In fact, a few community forests in Sweden³⁵ and Norway³⁶ have been over harvested, with a public backlash regarding failed stewardship or management.

Approximately half of Sweden's community forests are managed by Skogssällskapet, a company specializing in the management of forest estates and community forests. Other municipalities have hired different companies, or if large enough, have their own municipal community forest management staff.³⁷

³¹Pettersson 1994

³²Pettersson 1994

³³Jonsson 1994

³⁴Gaustad 1994

³⁵Pettersson 1994

³⁶Groven 1994

³⁷Pettersson 1994

The management of Umeå's community forest is typical of the arrangement between the municipality and the management company. The municipality hires the company on a contract to manage the forest lands and to pursue the policies that are laid down by the municipal council in consultation with the management company. Any net profit from the community forest accrues to the community.³⁸

The community forest plan is laid out over a ten year period, with an annual review of activities slated to occur over the next year. Submissions are invited by the public, and they have access to all the relevant documentation and plans. While public input is welcomed throughout the year, there is a specific time frame in the annual municipal planning and reporting during which commentary on the community forest is sought. Surprisingly little public input is provided, and this is generally believed to indicate that the Swedish public are generally pleased with present community forest management.^{39,40}

The management company most often subcontracts out the silviculture and harvesting work, rather than having full time employees. An emphasis is put on hiring local subcontractors, but this is a secondary consideration with respect to the quality of work done. Due to the intense public use that community forests are subjected to, it is important that any forest work undertaken is completed efficiently and effectively. Thus, subcontractors who have performed well in the past are hired again, and great emphasis is put on relationships and reputation. Having subcontractors who you can count on to do a good job also reduces the management burden - a benefit when there may be only one or two full-time community forest management staff.⁴¹

In summary, the long history of cooperation and communalism amongst the Swedish people,

³⁸Pettersson 1994

³⁹Jonsson 1994

⁴⁰Pettersson 1994

⁴¹Pettersson 1994

fostered by the isolation of many of the communities and the demanding climate and land, has led to a strong tradition of some forest land being held in community forests, and less frequently as commons (common property). This communalism also led to the establishment of the right of access to any land in Sweden ('Every Man's Right'). The history of the villagers' need to cooperate is the primary determinant of the importance of the community forest in Swedish society, and the strong sense of cooperation that exists to this day when managing common resources such as forest land. Simply put, common resource management has existed for over 2,000 years in Sweden, driven by necessity and nurtured by cultural tradition. Sweden has a culture that has evolved around the forest, and the intimate interrelationship between people and the surrounding forest.

COMMUNITY FORESTRY IN CANADA

Community forestry has been a relatively new phenomenon in Canada with one of the earliest references found in the 1944 *Forestry Chronicle* publication of the *Nipigon Forest Village. A Prospectus* by A. J. Auden. This article describes a co-operative forest community that would be located in the Thunder Bay District of Ontario,

A Forest settlement based upon the co-ordinated development of a forest products industry, hunting and fishing lodge with outlying cabins, subsistence farming and horticulture, handicraft shops and finished woodwork, probably also fur-farming, commercial fishing, and perhaps a quarry - all these activities to be integrated and administered by an executive board and a manager, with marketing of production handled by a Forest Products (Producer) Co-operative Association (Auden 1944, 209).

The editors' note accompanying this article stated that it was an outstanding contribution to the study of Canadian forestry, and they decided to publish the paper in its entirety - despite the author's recommendations that it be shortened with some quantitative material removed (ibid). This gives some indication of how innovative a concept this was in the Canadian forest sector.

Community forestry can be considered as a form of community economic development (CED)

which is a specific form of economic development carried out on a local scale which includes,

- active participation by the community, particularly in setting objectives;
- the integration of economic and social development based on a general, non-sectoral approach;
- a territorial approach in which the community is defined geographically (Masse 1995, 3)

Given the tremendous geographic and cultural spectrum of communities in the United States and Canada there is no surprise in the different origins of CED in North America,

Most authors agree that the CED approach first became popular in North America in the 1960s in American cities as a way of dealing with poverty and discrimination. In Canada, CED first appeared in rural areas as a way of reducing regional economic disparities (Masse 1995, 4).

The emergence of Canadian CED and community forestry initiatives - with both being primarily rurally based - share many of the same conditions,

- economic decline and rural out-migration;
- deep disillusionment with governments' ability to solve problems;
- a sense of powerlessness in the face of major socioeconomic trends, such as economic restructuring and the globalization of markets;
- gradual erosion of the quality and quantity of public services;
- growing inability of governments to maintain the current standard of living and of the private sector to create worthwhile jobs;
- the gradual and continuing impoverishment of increasingly larger segments of society;
- the lack of influence that communities have on major decisions that affect them (Masse 1995, 4).

This focus on rural development is well demonstrated in community forest initiatives across Canada. To provide an overview of community forestry initiatives across the country, a national survey was carried out. The results of this survey with summaries of the provincial efforts in community forestry are provided in the following section.

Canada Survey

The purpose of this survey was to derive a national context of community forest initiatives, to which the British Columbian situation could be compared. A short mail-out survey was sent to the head

bureaucrat of each agency in charge of forestry for all ten provinces, two territories and the federal government. A 100 % response rate was achieved. A copy of the national survey form is provided in Appendix B.

Community forestry is not being pursued in the Yukon Territory and the five provinces of Manitoba, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador (all four Atlantic provinces). Brief explanations of the policy situations in each jurisdiction is provided below.

Yukon

The Yukon government indicated that community forestry is not being pursued as forest resources have yet to be devolved from the Federal Government. This was a curious finding, given the pursuit of it in the Northwest Territories which is also under federal legislation. Further research will be required to determine the reasons behind the two territories having different community forestry policy initiatives.

Manitoba

Community forestry is not being carried out in Manitoba, as there has been no public interest raised about it as a management option.

Nova Scotia

Three quarters of the land is privately owned, with relatively small woodlots accounting for 50% of this. No land around communities is available for community forestry.

Prince Edward Island

The province is currently in the process of legislating provincial forests. Once these are proclaimed, there is an intent to establish community-based management in areas that express interest.

New Brunswick

All land is fully allocated to industrial licensees.

Newfoundland and Labrador

Community forestry was explicitly recommended in the 1955 Royal Commission on Forestry and the 1981 Royal Commission on Forest Protection and Management (Roy 1989 as cited by Duinker et al. 1994).

The Portland Hill community forest pilot project ran in the 1980s. This involved a 550 ha block of forest in Unit 17 near Gros Morne National Park which was designated for management and use by local residents (Roy 1989 as cited by Duinker et al. 1994). The pilot's objective was to provide the local residents with opportunities for systematic firewood extraction and to begin to rehabilitate the degraded forest. The two year experiment was considered a success in demonstrating the social feasibility and acceptability of community forests in the province (Roy 1989 as cited by Duinker et al. 1994).

Today the forest service employs planning on a district level that incorporates stakeholders who prepare plans and use consensus decision-making, and it is believed that this meets the needs of the public and there is not a demand for community forestry in the province.

Community forestry is being actively pursued in Alberta, Saskatchewan, the Northwest Territories and a brief discussion is provided on each one of these initiatives. The community forestry initiatives are more advanced in Quebec, Ontario and British Columbia - and a more detailed explanation of the situations in these provinces is provided.

Albertan Government Community Forest Initiatives

The Albertan government is reviewing its management of what can be referred to as Marginal Timber Units (MTUs) or local permit wood. The Department of Environmental Protection is

investigating alternatives and has made changes towards more community based input to the allocation of local wood supplies. Three reasons are behind this: 1) the Department of Environmental Protection is downsizing and reduced budgets have forced them to investigate alternatives such as 'community management'; 2) public/local timber operator input has requested greater community involvement; and 3) the provincial government has an interest in more local/regional decision making, and timber management is no exception.

Saskatchewan Government Community Forest Initiatives

The province's new *Forest Resources Management Act* contains provisions that allow for the creation of community forests. The Saskatchewan Management Policy Framework, and Long Term Integrated Forest Resources Management Plans identify both agro-forestry and community forestry as public identified and desirable policy initiatives. A number of symposia have been held with the Prince Albert Model Forest organization and the Canadian Forest Service on the issue and one pilot community forest has been contemplated. The public want more control over forested lands surrounding their communities. In the south, this provides an extension to Green Belt concepts, while in the north the concept of community forestry fits into the co-management concept and northern economic development based on local business creation initiatives.

Northwest Territories Government Community Forest Initiatives

Government draft forest management policy addresses the issue of community forests through community forest management plans that deal specifically with the forested areas around communities and address the local or community needs and concerns such as community woodlots, building materials, forest fire management, hunting, trapping, tourism and recreation. These plans are developed through consensus decision-making within a consultative framework and co-management agreements are one way

to facilitate the plans. Two communities are working closely with the government in developing and implementing co-management plans for prescribed burns. The intent is to provide communities with the opportunity to administer and implement forest management plans for the benefit of local residents.

Quebec Government Community Forest Initiatives

There has been a long history of cooperative forests and municipal involvement in forestry. Quebec was likely the first region of Canada to address community involvement in forestry. In 1911, the provincial government (under Goin) established township reserves which was a new form of land tenure,

...which had some similarities to community forests. The objective was to help rural communities by recognizing residents' needs for lumber and firewood. Although provincial forest service officers were supposed to control harvesting, the reserves became a local asset managed by local people (Masse 1995, 14).

Sixty years later, in 1971, there were 166 cantonal reserves totalling approximately 800,000 ha. Lack of community control led to wide spread open access behaviour with the resultant forest degradation and the tenures were extinguished and the system dismantled with the repeal of the enabling act (Duinker et al. 1994).

In the 1930s another attempt was made to establish community forests in the Gaspé region, as the residents there were facing declining fish markets and sought access to special forest reserves. The intent of these special reserves was to provide a living for the residents of the 'villages forestiers' (forest villages). The economic upturn that accompanied the Second World War led to the demise of the community forests. This attempt was instrumental in establishing the cooperative forestry movement in the province, and led to policy change to permit local people access to tenure in a system that was designed primarily for industry (Duinker et al. 1994).

One of the best examples of local forest tenure is the Girardville COOP in the Lake Saint John Area. Utilizing an old and un-logged cantonal reserve, the establishment of the COOP was extremely

successful in creating a diversified economy which stemmed the exodus of people that had been occurring (Duinker et al. 1994). Desy (1991) as cited by Duinker et al. (1994) argues it is the sense of belonging to the forest reserve that explains the COOP success. Girardville is only one of a number of successful COOPs.

Since the early 1970s, there has been a strong movement for privatization of Crown land near inhabited areas. This has prompted a call for more local tenures, and while most of the people supporting this have sought private property rights for forest farmers, what has resulted is in fact a move towards the creation of wealth in a collective setting - which was the original intent of the initiative (Vachon 1991 as cited by Duinker et al. 1994).

There is currently underway the 'Inhabited Forests' initiative, which stems from the political will of a number of socio-economic stakeholders to modify the forest management practices and planning on provincial Crown lands. One of the types of forest production units is a Municipal Forest, with an area of 1,000 to 50,000 hectares of Crown land situated in or near the community.

The driving stakeholders behind this movement include: the outdoor recreationalist; the conservationist; and the outlying regions who seek more control over the forest resources in order to capture a greater portion of the economic and social benefits.

There are forest and social management guidelines behind the Inhabited Forests initiative. Forest management guidelines include:

- a better ecological control of forest resources
- the drafting of a new silvicultural model
- the adoption of a multi-resource approach
- diversification of the forest production
- technological choices which are in line with the local employment needs
- the municipalisation of intra-municipal lots (Bouthillier and Dionne 1995).

Social guidelines include:

- revitalize, consolidate and develop the rural environment
- seek forest production and transformation activities which are complementary to each other

5. reinforce the "belonging to the territory' feeling
- emphasize valuing the human potential
- contribute to the creation of stable jobs to be held by people in the regions
- implement integrated forest resources and territory management (Bouthillier and Dionne 1995).

This territorial aspect, as seen in Quebec, is one of the elements of cooperation that Axelrod cites and was discussed in the previous chapter. This territoriality forces all those involved in rural forest development to pursue a systemic approach that leads to institutions like community forests (Dionne 1994 as cited by Duinker et al. 1994).

Ontario Government Community Forest Initiatives

Community forestry in Ontario is a much more recent phenomenon than in Quebec. There are a large number of county forests, and while many of these are well managed by the Ontario Ministry of Natural Resources (OMNR), they have a dominant timber management approach and there is no means for the communities to directly participate in the management and planning (Dunster 1991).

Duinker et al (1991), in a paper addressing community forestry in Northern Ontario define community forestry as,

... management of forested lands directly or indirectly by representatives of local communities. Representation of local communities could be achieved in a variety of ways, a key one of which would be local government. Community forestry is not private forestry, as in private woodlots; it is not industrial forestry, as in private enterprise with freehold land or timber leases from provincial governments; and it is not provincial government forestry, as in Crown-land management by Ontario Ministry of Natural Resources (Duinker et al. 1991, 131).

Three years later, Duinker fine tuned the definition of community forestry to be more specific, undoubtedly influenced by the progress to that date of the four pilot community forest projects in Ontario,

A definition of community forest would have to recognize three attributes: (a) who decides; (b) who benefits; and (c) how broad-ranging are the management objectives. These are the traits of community forest which set it apart from other types of forests in that the community makes the decisions and accrues the benefits, and the forest is managed for multiple values. Therefore, for us a community forest is "a tree-dominated ecosystem managed for multiple community values and benefits by the community".

While this includes urban situations, most conceptions of community forests in Canada involve smaller, rural communities and their forest hinterlands (Duinker et al. 1994, 712-713).

Starting in the fall of 1991, the Ontario Ministry of Natural Resources and four partner communities developed and established four pilot community forest projects with the experimental phased ending on March 31, 1996 (The Community Forestry Group 1995). The community forest pilots initiative was a direct result of the 1990 election of the New Democratic Party (under Bob Rae) to form the Ontario government. The establishment of community forestry was one of the NDP policy goals.⁴²

This community forestry initiative was part of the Sustainable Forestry program announced in May 1991. The objectives of the program were to,

1. lay a foundation for improved forest management
2. give people a stronger voice in policy development
3. secure a long term future for Ontario's forests and those who use them (Anthony Usher Planning Consultant et al. 1994, 2).

The community forestry pilot projects were designed to: assist policy development and transfer and to afford entrepreneurial communities the opportunity to strengthen their role in natural resource management and stewardship (The Community Forestry Group 1995), as well as to reduce conflict, to effect better citizenship, and to address the government's overall agenda for 'social inclusiveness'.⁴³

This deliberate effort to use pilot studies for forest policy development was in marked contrast to the reluctance of the BC Ministry of Forests to consider this approach at the same time (Adolph 1993), though five years later BC is currently pursuing the pilot community forest initiative.

The four pilot community forest projects varied considerably in the size and activities undertaken and this reflects different socio-economic conditions and aspirations that were unique to each community. All were given funding by the Ontario Ministry of Natural Resources to undertake forestry planning,

⁴²Harvey 1998a

⁴³Harvey 1998a

administration, partnership development and training. These funds were supplemented by funding also obtained by industry, service clubs, federal funding agencies, and Non Governmental Organizations to undertake various projects including: educational projects; forest sector training; trail development; forestry research; fisheries related work; silviculture and block layout.

All four pilot projects were considered successful due to the lessons learnt, though none of the pilot projects were successful in obtaining tenure. With industry pre-occupied with privatization, tenure and the status of their wood supply - community forestry is considered a 'frill'.⁴⁴

Two pilots (Geraldton and Wikwemikong) still exist and operate with a third (ELCF) still existing as a partnership and the fourth (6/70) now defunct.⁴⁵ Brief descriptions of each of the four pilot projects are provided.

The Geraldton Community (GCF) Forest Inc. Pilot Study This pilot proposed intensive forest resource management on a relatively small land base of 65,400 ha representing the seven townships surrounding Geraldton. The productive forest areas is 48,985 ha representing 75% of the land base. The resident population within the boundaries of the community forest area is approximately 3,050 with the main economic sectors being forestry, tourism and service.

Each pilot study involved establishing community goals reflecting the needs and desires of those who would be living within or near the community forests. The Geraldton community goal for the community forest pilot project is to create an,

Economically sustainable community through community management of all natural resources using sustainable ecosystem approaches and environmentally sound practices (The Community Forestry Group 1995, 65).

⁴⁴Harvey 1998a

⁴⁵Harvey 1998a

This involved eleven objectives which are listed below:

- 1) Demonstrate and evaluate the viability of intensive forest management on a relatively small, community centred boreal forest area;
- 2) Increase community self-sufficiency through local management of local resources;
- 3) Demonstrate the value of holistic, integrated forest management practices in producing multiple outputs;
- 4) Improve silviculture practices and the quality and yield of timber and wood fibre;
- 5) Identify and pursue forest-resource-based economic diversification opportunities;
- 6) Create local employment and business opportunities;
- 7) Support development of a biomass-fuelled District Heating Facility;
- 8) Provide forest ecosystem educational and management training opportunities;
- 9) Establish a forestry training centre;
- 10) Provide community development;
- 11) Establish Geraldton as a model regional centre for sustainable development (The Community Forestry Group 1995, 61).

The community forest was incorporated in April 1994 as a non-profit company with a board of ten. Four of the seats are for 'ex officio' members with representation from: the Mayor and Chief Administrative officer of Geraldton, the Geraldton area Ministry of Natural Resources (MNR) office, and the Longlac Woodlands Division of Kimberly-Clark Forest Products Inc. The remaining six seats are elected from the membership. The board attempts to reach decisions by consensus, but failing this resort to a vote. Silviculture training has been conducted and the GCF has been successful in winning a number of contracts. A number of silviculture projects have been undertaken to examine various types of treatments within the forest and some of these proposals have been followed through. Alternative harvesting practices such as strip and patch cuts have been undertaken. As of 1995, 28 employees had been hired and contracting out is undertaken for road building and excavation work. A silviculture training centre and demonstration forest have been established, as has a District heating facility (The Community Forestry Group 1995).

Currently the Geraldton pilot project still exists and operates without government sponsorship. It has received recognition for providing local input, job creation and supplying local forest industry

related services.⁴⁶

The Woodlands In Keeping For Our Youth (WIKY) project This involves First Nations management of the Wikwemikong Unceded Indian Reserve # 26, which encompasses 42,956.5 ha on the eastern side of Manitoulin Island. Productive forest accounts for 32,373.5 ha or 75% of this. The pilot project encompasses six communities with an approximate population of 2,500 (The Community Forestry Group 1995).

The forest land base of the Wikwemikong is used for a wide range of purposes, including: medicinal and ceremonial plants; raw materials for crafts; recreation; berry picking; hunting and fuel wood harvest; harvesting logs for log homes; pulp, sawlog and fence post commercial harvesting (The Community Forestry Group 1995).

The mission statement of the project is,

The Wikwemikong Natural Resources Committee (now the Land and Resources Committee) will foster and advance the interests of the Ojibwa, Odawa and Pottowattomie of the Wikwemikong Unceded Indian reserve through the promotion, generation of diversified natural resource harvest, use generation and marketing in order to bring greater opportunity for wealth and improvement of the quality of life for all. All activity will be determined by its benefit to the total membership, environment and to the culture and tradition of the Wikwemikong (The Community Forestry Group 1995, 61).

There are five objectives of this pilot project, and they are:

- 1) Manage the forest in a way that encourages the long-term production of timber products to be sold or, preferably, to be manufactured and/or used on the Reserve;
- 2) Utilize silviculture practices to increase the quality and quantity of timber available on the Reserve;
- 3) Establish suitable policy and regulations to control cutting and to ensure long-term revenue from timber harvesting activities;
- 4) Work toward optimum development of reserve lands for a variety of uses;
- 5) Provide employment for Band members in the fore-mentioned activities (The Community Forestry Group 1995, 61).

⁴⁶Harvey 1998b

WIKY has developed and adopted a Tribal Policy on Timber Resources, with videos and meetings being used to aid in the development of the policy. A timber management plan over five years was developed. A community forest trust fund was established, with \$6/cunit stumpage being levied to support this fund. An updated silviculture plan was developed and used to assist the creation of the management plan.

Forty jobs on reserve in forestry have been created and this supports the sustainable focus of the management strategy. All timber is sorted and processed at one site, and fence posts are now peeled on reserve whereas they were previously shipped off island with the bark intact (The Community Forestry Group 1995). WIKY continues to operate and one factor behind its success has been the First Nations control (ownership) of the land base.⁴⁷

The Elk Lake Community Forestry Pilot Project (ELCF) This community forest pilot project involved a single community leadership with a total land base of 470,044 hectares of which 376,400 ha is productive forest. There are approximately 1,170 permanent residents in the community forest land base that encompassed forty four complete and nine partial townships. The mission statement of the project was,

To promote the continued economic viability of local communities that depend on the area for their livelihood through the implementation of Sustainable Forestry practices (The Community Forestry Group 1995, 31).

There were four objectives to the pilot study:

- 1) Secure Local Administrative and Decision Making Authority;
- 2) Accelerate The Development of Sustainable Forestry;
- 3) Promote The Economic Viability Of The Local Communities;
- 4) Secure The Permanence Of The Community Forest (The Community Forestry Group 1995, 31).

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The ELCF was governed by a Partnership Committee that represented a range of forest user interests, including: business, education, Elk Lake, environment, industry, labour, Matachewan (native group), mining, recreation, tourism, First Nations and OMNR.

ELCF sat on the Timber Management Planning team for the 20 year Forest Management Plan and was responsible for the public consultation part of the process. Increased involvement is expected to occur on an incremental process as ELCF demonstrates its competence. Some resource inventories have been updated and others developed. There has been some effort at economic diversification through less traditional forest uses (trails, recreation for the disabled, etc.). There has been a Resource Management Field Worker Training Program established for the provision of silviculture, timber cruising and related services (The Community Forestry Group 1995).

At this date, the ELCF still exists as a partnership body participating in forestry management in a variety of ways including operational matters and the local round table.⁴⁸

The 6/70 Community Forest Pilot Project This involved a coalition of six municipalities representing a total population of 16,000. The community forest comprised nine entire and ten partial townships with a total area of 332,929 hectares of which 252,119 hectares are productive forest. The 6/70 pilot community forest mission statement was,

The 6/70 Community Forest seeks to enable people to make shared forest management decisions (The Community Forestry Group 1995, 44).

The 6/70 project had nine stated objectives that were pursued under the philosophy of participation by all people in the pilot project. The 6/70 initiative employed shared decisions about forest resource issues (use and management of trees, the forest land base, habitat, wildlife, fisheries, recreation and tourism) and progress towards each objective is provided below.

⁴⁸Harvey 1998a

Objective one was to include a representative from each forest stakeholder group in the process of decision making about forest resource management. The community forest board of directors was established in the summer and fall of 1992 and the 16 member board has representation from all of the various stakeholder groups including: the fur industry; native community; 6/70 Area Economic Development Corporation (AEDC); labour; small forest industry; small business; naturalists; non-affiliated; winter recreation; angling and fishing; summer recreation; large forest industry; education; agriculture; tourist outfitters; and OMNR liaison (The Community Forestry Group 1995).

Objective two was to inform stakeholders and forest users of the community forest's intent, mandate, programs and the extent of involvement in forest resource management. Multimedia presentations were used, along with meetings, field trips committees and a workshop (The Community Forestry Group 1995).

Objective three was to make informed decisions on forest resource management issues that are timely and fair for all. Many of the issues were discussed, with many of these covering more than one objective. Each decision had been guided by the concern for fairness and expediency (The Community Forestry Group 1995).

Objective four was to resolve stakeholder and forest user conflicts in a timely and fair manner. A conflict over the Sand/Indian Road timber access and cottagers was successfully resolved. The Trapper/Snowmobile Clubs/Municipalities/OMNR conflict was very complicated with trail rights and liability as the main issues. In late 1994, the trapper/snowmobile clubs conflict was resolved largely due to the 6/70 facilitation effort. The Guilfoyle Lake plan was successfully completed with a monitoring system implemented to address concerns regarding fish populations and fishing pressures (The Community Forestry Group 1995).

Objective five was to promote the health and sustainability of natural resources within the community forest area. A fisheries sub committee established guidelines for derbies which was well

received. A pre-commercial thinning exercise was undertaken to provide both training and sawlogs. Research into aspen and balsam poplar differentiation was undertaken. A roads committee worked on an access road management plan (The Community Forestry Group 1995).

Objective six was to assist in the development of economic diversification opportunities related to sustainable forestry in the 6/70 area. Assistance was given to a local entrepreneur for a value added operation, as well as the pre-commercial thinning exercise (The Community Forestry Group 1995).

Objective seven was to ensure that the 6/70 community forest was accountable to the people. Devising the right management structure, hiring a communications officer and the development of by-laws including the election of board members was addressed (The Community Forestry Group 1995).

Objective eight was to monitor and evaluate community forest plans, programs, activities and procedures on a continual basis. Evaluations were ongoing (The Community Forestry Group 1995).

Objective nine was to ensure that the 6/70 community forest is autonomous and financially self-sustaining by March 31, 1995. A resolution to this effect was passed and work undertaken with regard to assessing the feasibility of this (The Community Forestry Group 1995).

At this date, the 6/70 Community Forest Pilot Project is defunct. It was established as a non profit organization after government funding ended in March 1995 but was not able to continue to operate due to funding shortfalls. Two of the causes for the failure of the 6/70 were the lack of a significant land base and the lack of a local champion at the political level.⁴⁹

Lessons Learned from the Ontario Community Forest Pilot Projects and Community Forestry in Ontario Today

In 1994 the Harris (Conservative) Ontario government was elected with a platform of cost reduction and privatization. The current (Harris) government has an initiative to privatize forestry

⁴⁹Harvey 1998a

management. This policy emphasis overtook everyone's considerations regarding increasing the level of local involvement in forest and resource management.⁵⁰ Funding was not provided to extend the terms of the four pilot studies but a number of important lessons have been learnt from the pilot project and these are discussed below.

The first lesson learnt from the pilot studies was the importance of local buy-in to the community forest.⁵¹ Local involvement is essential to ensure that the community forest is meeting the needs and desires of the residents and garners their support in public participation in forest management. Local political support for the initiative and local residents pursuing new opportunities within the community forest as they arise also stems from local buy-in.

The second lesson learnt was the importance of the community forests having the freedom to manage their own financial affairs independent of the government.⁵² This permits a greater sense of ownership in the process and also allows for a faster and more flexible decision making process.

The third lesson learnt was how difficult it was to wean the pilot projects off government funding.⁵³ This was not surprising as they pilot studies did not involve tenure transfer and thus it was more difficult for the administrative boards to create revenue earning opportunities - as they were not in control of the land base.

The fourth lesson, and one which ONMR considers to be very important, was the relationship between local public input and forest management decision making using Decision Support Systems

⁵⁰Harvey 1998a

⁵¹Harvey 1998b

⁵²Harvey 1998b

⁵³Harvey 1998b

(DSS).⁵⁴ Developing the DSS for the decision making proved to be an effective manner to promote local information collection and sharing and to encourage the local communities to take ownership and stewardship of the information. A key aspect of this was the value of the local information that is incorporated and the importance of having the local people aware of not only the existing but also the potential relationship with forest management.

The fifth lesson is that community forestry is an evolutionary process within the province, in that there will be no 'Big Bang' or sudden transition to a number of community forests.⁵⁵ The process will be a more gradual in that the three main players (government, industry and communities) will better define their needs and goals and what future arrangements they can envision. This will involve a lot of discussion and negotiation and creating a greater awareness of what are the needs, concerns, strengths and weaknesses that each party brings to the process. Information will play a key role here, in that each party will have access to and involvement in varying information and information sources which could serve as a key mechanism to bring the parties together and create a greater sense of empowerment, cooperation and control.⁵⁶

Related to this is the ongoing dis-aggregation that is beginning to appear in the forest industry in which woodlands and processing plant operations are becoming increasingly independent of each other. There are a number of reasons behind this including the desire to reduce operational costs and the recognition that there has to be greater flexibility for local management and this is more effectively managed through running the operations as investment centres rather than cost (budget) centres. This parallels a government process in which the provincial government is increasingly utilizing local

⁵⁴Harvey 1998b

⁵⁵Harvey 1998b

⁵⁶Harvey 1998b

government or private sector delivery of services leading to a slow but steady move to greater local autonomy. In the future it is likely that an increased number of arms length relationships will develop between fibre suppliers and fibre users and community forests are one potential source of fibre.⁵⁷

There are more management challenges in the southern half of Ontario with the increased numbers of interests and resultant conflicts. Over the last two years there has been a forest management initiative in the Parry Sound area that in many ways reflects the next stage of community forest development utilizing lessons learnt from the four pilot studies. The challenge was how to ensure the appropriate level of community involvement along with the privatization of forest management. A new non profit corporation (Westwind Forest Stewardship Inc.) was established with a board composed of four community based members and three industry representatives. The non profit corporation will hold the tenure and undertake the forest management.⁵⁸ The forest industry saw this approach as an effective conflict avoidance mechanism and incorporates a number of the lessons learnt from the community forest pilot studies on creatively working within the existing tenure and legislation.⁵⁹

In 1994, the *Crown Forest Sustainability Act* replaced the *Crown Timber Act*. Section 15 of the new act addresses the establishment of Forest Management Boards, and reflects the impact of the community forest pilot studies. To date, this section has not been utilized and reflects a government creation or top down approach to establishing a community forest.⁶⁰

There is currently a significant land use planning exercise underway involving three Round Tables addressing regional planning issues. At least two of them (Boreal West Planning Region [NW]

⁵⁷Harvey 1998a

⁵⁸Harvey 1998b

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⁶⁰Harvey 1998b

and Boreal East Planning Region [NE]) have discussed community forests. One of the Round Tables has discussed the concept of community stewardship areas around local municipalities that would be mapped out.⁶¹

Community Forestry in British Columbia

The long cultural development of a learned dependence on the forest observed in Sweden has not been the case in British Columbia, and it can be argued that an alienation of the public from the forest has contributed to some of the mismanagement that has occurred to date within the province.

The pattern of colonization followed the British colonialist tradition of Crown ownership and Crown grants for land and resource development which was also used in other parts of Canada.

To a lesser extent, the milder climate and more peaceful political situation (compared to the situation in Sweden's earlier history) precluded the need for common resource management to evolve. As well, whereas land ownership in Sweden has evolved from a long history of inter-clan warfare, land grants from the king and nobility, and subsequent reorganization as a result of industrialization and democratization, in BC, very little land has been alienated by the Crown.

Community Forests have been discussed in the province since the 1930's, and have been raised as a potential forest tenure/management scheme in each of the last four Forestry Commissions. A detailed review and discussion of the provincial community forest survey is provided in the following chapter.

Three community forests have received a lot of attention, namely the North Cowichan, Mission and Revelstoke operations. These three community forests will be discussed briefly in turn.

⁶¹Harvey 1998a

District of North Cowichan Community Forest The land base for the North Cowichan community forest was established from lands seized for non-payment of taxes in the 1930s and early 1940s and is therefore a de facto fee-simple operation. The Municipality incorporated the lands as a forest reserve in 1946 by means of a by-law. The forest land base owned by the community covers approximately 5,000 ha (District of North Cowichan 1997) comprised of six large blocks and has a maximum AAC of 23,000 cubic metres (Allan and Frank 1994). Actual harvests have ranged from 11,000 to 18,000 cubic metres resulting in a standing timber volume that is increasing.⁶² While the District is not obliged to operate under the Forest Practices Code,⁶³ as it is private and not crown land, the community forest management is done to the 'spirit of the code' (District of North Cowichan 1997).

In 1960, a consulting forester was hired to survey and conduct forest measurements within the forest reserve and a forest management plan was drawn up. The plan called for the establishment of woodlots, and in 1964 ten woodlots were established and harvested by local operators. Concern over the diameter limiting harvesting strategy and the degradation of the forest led to the creation of the Forest Advisory Committee in 1981. This committee recommended a number of changes in a report on the municipal forest reserve, including eliminating diameter cutting as a harvesting strategy (Forestry Advisory Committee 1981). The municipal council adopted the report's recommendations with the condition that the forestry department be self-financing, with no additional funding coming from municipal taxes (Allan and Frank 1994).

In 1989, the Forestry Advisory Committee decided that it was time to incorporate Integrated Resource Management Planning into future development plans for the community forest and in 1992 came out with report on a framework plan for the Maple Mountain Block (Forestry Advisory Committee

⁶²Frank 1997

⁶³Frank 1997

1992).

The Forest Advisory Committee of today includes three elected councillors, three municipal staff members (including the forester in charge), and three volunteer professional foresters living in the area (Allan and Frank 1994).

There has been a policy of intensive silviculture and alternative silviculture systems are being pursued including smaller patch cuts, green-tree retention, shelterwood harvests, and commercial thinnings⁶⁴ (Allan and Frank 1994).

The public has good access to provide comment, either directly via the Municipal Administrator or through the Municipal Council (Allan and Frank 1994). The forestry department are also sometimes directly contacted by the public with their concerns.⁶⁵

The Municipal Forest has been experiencing the same financial challenges as any industrial operation with a small profit in 1996⁶⁶ and another small profit of \$24,815 in 1997 due to poor markets.⁶⁷ Prior to this, the years were largely profitable, enabling the establishment of a reserve fund, re-investment back into the forest, and excess funds being used in general revenue (District of North Cowichan 1997).

The idea of a tenure designed especially for community forests holds great appeal to the District of North Cowichan.^{68,69}

⁶⁴Frank 1997

⁶⁵Frank 1997

⁶⁶Frank 1997

⁶⁷Frank 1998

⁶⁸District of North Cowichan Community Forest Focus Group 1997

⁶⁹Frank 1997

District of Mission Community Forest The Mission Community Forest is operated under a Tree Farm License (#26) which was obtained in 1958 (Allan and Frank 1994).

The origins of this forest began in the depression of the 1930s, when approximately 1,000 ha of land reverted to the municipality through the non-payment of taxes. The forest potential of this land was recognized and around 1948, revisions were made to the *Municipal Act* of BC which allowed the creation of the Mission Municipal Forest Land (Allan and Frank 1994).

Starting in 1946, there were a number of representations made to the provincial government to incorporate the Crown land within the Municipal boundaries with the 1,000 ha of land owned by the community. In 1958, following the submission and acceptance of a Working Plan, the crown land was incorporated through Tree Farm Licence 26 (at that time known as a Forest Management Agreement) (Allan and Frank 1994).

Over time, additional crown land was added, creating a total gross size of 10,400 ha of which 1,200 ha is municipally owned. The net operable forest area is 8,000 ha (Allan and Frank 1994). The current AAC is 41,200 m³, although this is calculated on a land base of 6,715 ha - as there has been some land additions since the calculation. It is expected that the larger land base will offset AAC reductions required by the Forest Practices Code.

The goals and benefits of the municipal or community forest have evolved over time. The earliest goals were to create employment even if this required a significant municipal subsidy and to supply wood for the local sawmills to bid on. There are no longer any local mills, and any employment has to be efficient and justifiable. There are currently five main goals and benefits from this forest. They are,

1. To be a self-funding department. As everywhere else in Canada, there is significant concern by local taxpayers about high taxation rates, levels of public debt and a general feeling of not wishing to subsidize government operations.
2. Optimising revenue over a five-year cut control cycle rather than one-year periods.
3. Ability to manage and provide various chosen levels of other forest resource values for local residents.
4. Following prompt and aggressive silviculture programs.

5. Maintaining community social and economic stability (Allan and Frank 1994, 722).

Operating under the TFL, Mission faces the identical operational and management responsibilities as other industrial TFL holders. Unlike the industrial TFL holders, Mission is also subject to the *Municipal Act*, which places some additional restraints on how it manages the forest. Furthermore, the small size of the TFL creates a challenge of scale, as the industrial TFLs are all larger in size. Since 1978, Mission has received no 'financial breaks' from the provincial government. Prior to this, the municipality paid royalties rather than stumpage (District of Mission 1996). The idea of a tenure designed especially for community forests holds great appeal to the District of Mission.^{70,71}

The Mission community forest is run by a municipal forest department, with two Registered Professional Foresters and a small support staff. The majority of the labour jobs in harvesting, silviculture and recreation work is contracted out to local companies. This is similar to the situation in Umea, Sweden and some other European community forests - though others, such as those found in Oslo and Drammen (Norway) and Freiburg (Germany), have both management and forest labour performed by municipal employees.

The public has good access to provide comment, either directly via the Municipal Administrator or through the Municipal Council (Allan and Frank 1994). The forestry department is also sometimes directly contacted by the public with their concerns.⁷² The Municipal Forest has been experiencing the same financial challenges as any industrial operation with a loss in 1996⁷³ and a loss in 1997 due to poor markets. Prior to this, the years were largely profitable, enabling the establishment of a reserve fund, re-

⁷⁰Allan 1997a

⁷¹District of Mission Community Forestry Focus Group 1997

⁷²Allan 1997b

⁷³Allan 1997a

investment back into the forest, and excess funds being used to finance a new library/archives, a fire hall and fire truck, an ice-rink conversion, and yearly grants to arts and culture (District of Mission 1997).

City of Revelstoke Community Forest Revelstoke obtained a TFL to establish a community forest in 1993. This resulted from a six month effort that was driven by seven years of sawmill closures, reduced harvest levels, falling employment and the export of raw logs from the region to other sawmills (City of Revelstoke 1995).

1986 is considered the low point for the area's forest industry, as that year the major sawmill in Revelstoke closed, leaving three small sawmills and a poleyard in the community that were only processing 4% of the timber harvested from public lands in the area. From 1987-1990, the city in cooperation with community groups worked hard to advocate that more timber be processed locally, and during this time a tenure was cancelled due to lack of local processing and two tenures were awarded to local mills. In 1988 and 1989, the city and the Economic Development Commission identified serious management problems in the Management and Working Plans for TFL 23, and these allegations were raised with the Forest Resources Commission in submissions in 1989 and 1990 (City of Revelstoke 1995).

In 1991, Westar Timber offered its southern half of TFL 23 and its Castlegar sawmill for sale, and in 1992 a deal was negotiated with Pope and Talbot Ltd., a US lumber firm. Over 500 residents of Revelstoke attended a public meeting to protest the sale before a review panel and a demand for local control of the local resources was made. This demand was only partially successful in that 35,000 cubic metres from this area was allocated to the SBFEP. Westar retained the northern half of the TFL, which was renumbered TFL 55 (City of Revelstoke 1995).

A year later, in October 1992, Westar attempted to sell TFL 55 to Evans Forest Products Ltd., a plywood and saw milling firm based in Golden. A new review panel was struck and at another public review meeting was held in Revelstoke, 500 people once again raised a protest about the perceived loss

of local control and employment with the proposed sale to Golden. This protest led the government to reject the proposed sale in mid-December, and one of the recommendations of the review panel was for the government to consider a community forest (City of Revelstoke 1995).

The city responded quickly to this recommendation, setting a meeting on December 17th to discuss a possible consortium with local industry. On December 29th, representatives from the provincial government, Westar Timber, Evans Forest Products Ltd., and the city met to discuss a mutually agreeable solution. Dan Miller, then Minister of Forests, gave the City of Revelstoke until January 21, 1993 (a total of 23 days) to demonstrate significant progress (City of Revelstoke 1995).

Once again, the city responded quickly, retaining the services of consultants for operations and financial advice, an assessment of the timber resources and liabilities, and legal advice, with a total cost of \$200,000. Substantial progress was demonstrated by January 21, and the Ministry of Forests agreed to consider a proposal (City of Revelstoke 1995).

On February 1, 1993, the acquisition terms were agreed to between Westar Timber, Evans Forest Products Ltd., the City of Revelstoke, and the provincial government. This essentially involved splitting TFL 55 into a northern portion that went to Evans and a southern portion that went to the City of Revelstoke. This created a TFL of approximately 100,000 ha with an AAC of 98,500 cubic metres for the City of Revelstoke's community forest (City of Revelstoke 1995).

The Revelstoke Community Forest Corporation was incorporated on April 20, 1993 with the city holding the only common share. To achieve this \$3.5 million dollar purchase, the City of Revelstoke entered into a consortium with three local mills. The city invested \$1 million, with the funds coming from the city's Electrical Utilities Reserve Fund (a legacy of the Hydro dam construction in earlier years). The three local forest companies invested \$1 million cash, and an additional \$500,000 cash which would be retired through future log deliveries. The community forest corporation took a one million dollar long-term loan from the Royal Bank to complete the purchase. The corporation borrowed an additional

\$1 million for start-up and initial operating costs from the Royal Bank (City of Revelstoke 1995).

The community forest sells half of the timber harvested on the open market through sealed tenders to the highest bidder. The remaining 50% of the logs is distributed, at full cost, to the three partners based on their initial contribution to the \$1 million industry financing, namely: 30 percent of the total harvest (24,353 cubic metres) goes to Downie Timber Ltd.; 10 percent of the total harvest (8,1176 cubic metres) goes to Joe Kozek Sawmills Ltd., and the remaining 10% goes to Cascade Cedar Products Ltd. (City of Revelstoke 1995).

The Revelstoke Community Forest Corporation is run by a board of directors, comprised of four members from city council and administration and three community members. The Corporation Management committee has two board directors, one representative from each of the three industry partners, and the General Manager of the Revelstoke Community Forest Corporation. The Revelstoke Community Forest Corporation has a general manager who is an RPF, a Controller, a Woods Supervisor and an Administrative Assistant (City of Revelstoke 1995). The intent was to have a lean structure that saw the city retain overall control but be able to tap into industry expertise.⁷⁴

The Corporation is subject to the same forestry legislation as any industrial TFL holder. It has run at a profit, despite challenges created by poor road construction, difficult operating areas, and working an area that Westar had essentially high graded before selling off the TFL.⁷⁵ The idea of a tenure designed especially for community forests holds great appeal to the City of Revelstoke.^{76,77}

Despite the depressed markets - particularly in the pulp sector which is especially relevant given

⁷⁴Clarke 1997

⁷⁵Clarke 1997

⁷⁶Clarke 1997

⁷⁷Revelstoke Community Forest Focus Group 1997

the high pulpwood component of the timber inventory in the community forest - the Revelstoke Community Forest Corporation earned a profit of just over \$470,000 for the 1997 fiscal year.⁷⁸

Forest Licences Awarded To Communities In BC

A number of Forest Licences have been awarded by the provincial government to communities in the last few years, including licences to: Creston; Kaslo; Princeton; and Gold River, Zeballos and Tahsis (held jointly by the three communities).

These Forest Licences, referred to as 'Community Forest Licences' are identical to the Forest Licences (FLs) awarded to industry in that they are volume based and do not have as onerous management obligations as TFLs.

Community forests seen elsewhere in the world are all area based, and it is the connection to the land that is a major determinant of the character and success of community forestry seen elsewhere. There can be no sense of ownership or relationship with a land base when managing for a volume of timber rather than a forested area. A more appropriate term for the Forest Licences issued to BC communities might be 'Municipal Forest Licences', to indicate that they are volume based and, while controlled by the community, do not offer the same flexibility that community forestry elsewhere offers.

Examples of Current BC Community Forest Proposals

Four community forest proposals will be briefly reviewed to give an indication of what initiatives have been recently undertaken.

⁷⁸Clarke 1998

Oona River Community Association Oona River is located on Porcher Island which is off the mouth of the Skeena River on the north coast of the province.

Initiated in 1993, with a proposal being submitted in the late fall of that year, this proposal was for an area based community forest of 19,800 ha. An unincorporated community, first established in 1907 or 1908 by Swedish fishermen, the community has suffered a number of economic challenges stemming from reduced forestry and falling fish stocks. Boat building, an industry that the community was famous for, has all but stopped (Oona River Community Association and Central Coast Consulting 1993).

Six new community forest tenures were proposed with these tenures to be held by the Oona River Community Association (ORCA) - as the community is unincorporated and this was deemed by the residents to be the most acceptable legal vehicle. Each one of the proposed six community forest tenures had six common tenure attributes (Oona River Community Association and Central Coast Consulting 1993):

1. Duration - 99 year term, with 30 year evergreen replacement clause.
2. Transferability - non transferable. If the community forest were to fail or suffered from mismanagement, the land would revert back to the crown.
3. Allotment type - area based, it was felt that volume based licenses do not promote optimal resource management and a community needs an area to interact with.
4. Size specification - 19,800 ha that had watershed and physical boundaries. Community forests in Europe are often of this magnitude (consider Oslo's community forest of 17,500 ha) - they do not approach the TFL areas or chart areas for FLs. The land area and location were determined by concerns over: physical boundaries (permitting watershed management); manageability; access and conflict minimization.
5. Security - experimental form of tenure that would be renewed only if both the Oona River Community Association and provincial government agree to its continuance. This approach is based on the precedent established between the Sechelt Indian Band and the provincial and federal governments in establishing self-government;
6. Operational Control. Modified Tree Farm Licence regulations, with the potential deletion or addition or new regulations. Community forests do not focus exclusively on timber extraction, so minimum harvesting levels would not be set, either on an annual or over a five-year period as with existing tenures (Oona River Community Association and Central Coast Consulting 1993).

Five other tenure attributes offered a range of possible policy arrangements (Oona River Community Association and Central Coast Consulting 1993):

7. **Comprehensiveness** - Ideally, land use planning integrates all of the social, economic and environmental concerns in addressing resource use and management. Governments and the legislation that they craft and enforce have typically broken down land management into a number of sectors or disciplines. In British Columbia, three government ministries are the principal agents behind land management: Ministry of Forests; Ministry of Environment, Lands and Parks; and Ministry of Energy, Mines and Resources. The Oona River tenures suggested various non-timber resources (such as minerals, Fish and Wildlife, water) that could be managed under a tenure but for logistical and political expediency recommended just timber resource management, with the potential to influence non timber resources such as botanical plants, recreation, fish and wildlife through zoning, and licensing.

8. **Right to Economic Benefits** - A variety of revenue regimes for both the provincial government and ORCA were proposed, including: stumpage set at North Coast Forest District Rates; logs sold at Vancouver Log Market prices, or logs sold at threshold stumpage rates (based on an average stumpage). Logs would be sold by public tender with Oona residents having the right to match any winning bid from off-island.

9. **Exclusiveness** - public access to crown land is a right that the public puts much importance in. Oona River is located on an island off the mouth of the Skeena River on the north coast - and this would reduce the likelihood of unacceptable public access resulting in environmental damage. The proposed community forest would have open access to public, limited to existing regulations, hunting could be managed by means of a Limited Entry Hunt and recreation (if it proved to be greater than anticipated and led to damage) could be controlled by permit.

10. **Use Restrictions** - following a detailed land and resource inventory and analysis, areas of the land base would be assigned to specific uses. Area uses/roles would include: logging - with specified practices required; no logging areas; ecological reserves; fish and wildlife enhancement and support; recreation; fishing and hunting; educational; aesthetic; spiritual/cultural reasons; multiple use, etc.

11. **Operational Stipulations** - meets all relevant provincial/federal laws; potential exemptions given to certain laws to permit/encourage forestry or land management experimentation (Oona River Community Association and Central Coast Consulting 1993).

Reaction from the government was generally favourable (Adolph 1993, Clark 1994, Petter 1994, Sihota 1994), though concern was raised over jurisdiction (Sihota 1994), and the difficulty of tenure reform (Adolph 1993, Petter 1994).

Malcolm Island Malcolm Island is located in the Kingcome Timber Supply Area on the northeast coast of Vancouver Island. The Malcolm Island Community Forest Tenure Feasibility Study

was completed in April of 1996. The anticipated advantages of having a community forest included: local control; economic benefits/employment; diversified use of the forest resource; better stewardship on the environment and sustainability; training opportunities; community building; and setting an example. The anticipated problems included getting the community forest off the ground (risk and time concerns); management/administrative problems; limitations of economic and human resources; and effects on private property (Robin B. Clarke Inc. 1996).

Two tenure options were considered, crown granted land (fee simple title) and a 'Community Forest Agreement' held by the community on crown land. The 'Community Forest Agreement' has eleven main elements:

1. Agreement between community body and province.
2. Charter of basic principles.
3. Non-transferable.
4. Area-based, exclusive rights to forest resources.
5. Approximate 100 year term, with evergreen replacement every 10 or 20 years.
6. Payment to crown as rent rather than stumpage.
7. Harvest regulation based on requirement to "maintain certain standards of an ecologically healthy landscape, and an adequate inventory of timber and growing stands to ensure future timber supplies" (Robin B. Clarke Inc. 1996, 52).
8. Licensee responsibilities would include planning, inventory, silviculture and protection (similar to a TFL).
9. Local economic opportunities would dominate, ensuring local loggers and manufacturers would qualify as preferred bidders for sale of standing timber or logs, with sale being carried out by sealed bid. Right of first refusal by local residents to match any winning bid by a non-preferred bidder.
10. Forest Practices Code to apply.
11. Provisions for cancellation would give the licensee the right to end the agreement at any time with a constraint on the government from unilaterally ending the agreement (Robin B. Clarke Inc. 1996).

City of Prince George Located in the centre of the province, Prince George is situated at the confluence of the Fraser and Nechako Rivers.

The feasibility study for the community forest was completed in May 1996 and holds as its preliminary vision,

A Prince George Community Forest, comprised for forested landscapes within and adjacent to the city, will be managed to provide an array of forest values, experiences and benefits (such as timber production, wildlife habitat, recreation, interpretation, education, clean air, and clean water) to current and future generations of residents (Cortex Consulting Inc. 1996, 2).

There were a number of legal structures investigated for the community forest, including: under the municipality; as an incorporated body or partnership; as a company or corporation, as a cooperative; as a non-profit society; and by special statute. The recommended structure was as a non-profit corporation (under the *Society Act*),

...organized and operated for the benefit of the citizens of Prince George, for purposes of forest protection, forest management for a wide range of resource uses, and forest education (Cortex Consulting Inc. 1996,77).

The administrative structure of the community forest would consist of a board of directors (selected by a process to be determined) overseeing an executive committee. The executive committee would be comprised of the heads of the following 'Program Steering Committees' (PSC): finance, land and resources, community involvement, communications, education and training. The land and resources PSC would be supported by an Interagency Technical Advisory Team while the community involvement PSC would obtain information from the community at large. The PSCs would oversee the community forest staff, comprised of a general manager, secretary, treasurer/controller, and foresters and technicians (Cortex Consulting Inc. 1996).

Three options for land tenure for the community forest were proposed; municipal lands; Woodlot Licence; and Tree Farm Licence. No recommendation was made as the,

The choice for land base option for a community forest will depend on the ranking of

management objectives and the extent to which the community wishes to become involved in operating a community forest (Cortex Consulting Inc. 1996, 57).

Island Community Stability Initiative (ICSI) This is a group effort by six communities on the Queen Charlotte Islands located off the north coast of British Columbia. The six communities are: Sandspit, located on Moresby Island; and Queen Charlotte City, Skidegate, Port Clements, Masset and Old Masset located on Graham Island. Skidegate and Old Masset are Haida villages, while the other communities are predominantly non-native.

ICSI was formed in November 1995 by elected representatives, and their designated alternates, from every community and rural electoral area on the Queen Charlotte Islands, known by the Haida Nation as Haida Gwai.

The formation was in response to a 1994 Socio-Economic Analysis of the Timber Supply Area (TSA) which indicated a harvest rate that was 2.2 times larger than the Long Run Sustainable Yield while at the same time primarily creating work for off-islanders (ICSI 1996).

On January 31, 1996, the ICSI Consensus Document was signed between the communities which led to a long period of negotiation between the ICSI group and the Ministry of Forests and the tenure holders on the islands. This resulted in a Memorandum of Understanding being signed August 24, 1996 between ICSI and the Ministry of Forests (ICSI and Ministry of Forests 1996). The Memorandum explicitly committed the Ministry of Forests to establishing a community tenure, through the use of 56,000 cubic metres of SBFEP volumes in TFL 39 (MacMillan Bloedel Ltd.), 35,000 cubic metres of SBFEP wood being reallocated towards non-replaceable 10-15 year forest licences and a potential 25,000 cubic metres of wood through a new apportionment of the Timber Supply Area (ICSI and Ministry of Forests 1996).

In a Community Forestry Symposium held on the islands in September 1997, public frustration

over the lack of progress was evident and discussions with the ICSI members at that time indicated uncertainty about whether to accept the Forest Licence proposed, argue for a TFL, or hold out for a new tenure offered as one of the three community forestry pilot studies announced by the government.

In the first part of 1998, a feasibility study for a community forest was commissioned. A review of the fifteen year Forest Licence offered under the MOU was conducted and it was felt that the forthcoming tenures offered under the Community Forests Pilot Study would offer more advantages. The feasibility study made the following key element recommendations for a community forest:

1. be area-based (not volume based);
2. provide for community-based determination of the AAC, to be determined within a broader, community-driven, forest planning process;
3. provide for flexible cut control (this will be especially important in its economic viability given the small timber volumes that the community forest will generate);
4. have a revenue mechanism (e.g. stumpage, ground rent) that reflects the likely higher operating costs of the community forest relative to industrial tenures, and provides the community with sufficient earnings to manage and re-invest in the community forest;
5. provide for secure and comprehensive management authority over forest resources (not just timber) within the community forest land base; and
6. be without prejudice to the interests of the Haida Nation (Robin B. Clarke Inc. 1998, 6).

COMMUNITY FORESTRY AS AN INTEGRATED PLANNING TOOL

This section of the thesis will address the sixth research objective in investigating how community forestry can serve as an integrated planning tool and assist in establishing more sustainable forestry.

Four Stages of Forestry Planning in British Columbia

Four stages of forestry planning can be considered to have developed in British Columbia following the relatively short initial period of the early settler unregulated timber harvesting.⁷⁹ These are listed below, with the summarized aspects of each provided:

1. Stage One - Timber Management Planning (Sustained Yield)
2. Stage Two - Multiple Use
3. Stage Three - Integrated Resource Management
4. Integrated Planning

Timber Management Planning is directed towards establishing a sustained yield of timber and coincides with the forest management followed after the first Sloan Commission. Sustained Yield developed as a concept in France and Germany between the 13th and 16th centuries (Pearce 1976). In 19th century Germany the 'normal' or 'managed' forest of second growth was advocated. German forestry has had a lasting impact on North American forestry with the concept of sustained yield championed by Bernhard Fernow, a German forester who moved to the United States in 1876. Fernow was one of the founders of the American Forest Congress in 1881 and appointed in 1886 as First Chief of the Division of Forestry in the US Department of Agriculture (USDA).

In sustained yield management, old growth beyond a desired rotation age is considered undesirable and is liquidated. Once the old growth has all been converted, there is a 'Fall Down Effect' in which the managed forest supports a lower Long Run Sustained Yield (LRSY) in which there is a balance between increment and cutting (Watts (ed) 1983).

Concern over the management focus on timber and the growing awareness of the importance of other resources led to the development of Multiple Use Management. The practice of Multiple use coincides with the Pearse Commission in which a number of non-timber concerns were raised and partially addressed in subsequent policy and legislation (Pearse 1976). Timber production was still the

⁷⁹Matakala 1994

primary concern, but other uses could be accommodated, as long as they were not incompatible with timber production.⁸⁰ This has led to a number of management problems (Watts (ed) 1983).

Integrated Resource Management places an emphasis on resource management planning in which all the resources are supposedly planned for and managed. An effort is made to achieve a number of tradeoffs to ensure that all the resource requirements are met in every location.⁸¹ Integrated Resource Management became a popular concept in the mid to late 1980s and preceded the Peel Commission.

Integrated resource management practices carried out by the Ministry of Forests include:

1. Considering the land's resource values and capabilities for sustained use;
2. Considering social, economic and environmental values, needs and objectives;
3. Identifying and comparing alternatives;
4. Assigning resource use and management emphasis, based on the relative merits of various resource uses;
5. Producing a picture of resource uses and priorities for large areas; and,
6. Selecting the best uses for the present and scheduling resource use changes over time (Ministry of Forests nd, 1-2).

Tradeoffs have tended to reflect the timber management bias of the Ministry of Forests, a not uncommon phenomena,

Forestry in many of the world's forests has focussed on timber management. Sustaining (or attempts to sustain) other values in these timber-production forests has been achieved by constraining timber management. Sometimes this has worked well, but sometimes this has not (Kimmins 1992, 230).

Integrated planning, combines land use and resource management into a single framework and does not place the same degree of emphasis on accommodating timber production as is the case with IRM. There is an emphasis on the land carrying capacity, ecological integrity, humans as part of the ecosystem and balanced use. Integrated planning recognizes both single and multiple uses.⁸² Integrated

⁸⁰Matakala 1994

⁸¹Matakala 1994

⁸²Matakala 1994

Planning began to be addressed with the Peel Commission and the implementation of the 1995 *Forest Practices Code Act*. The Forest Practices Code (FPC) was in response to inadequate forest management in the past (Ministry of Forests, Ministry of Environment, Lands and Parks 1993).

The FPC was one of a number of provincial government initiatives to address integrated planning including but not limited to the Commission on Resources and Environment (CORE), Protected Areas Strategy (PAS), consultation and negotiation with First Nations, and the Timber Supply Review (TSR) (ibid). These were all positive steps toward integrated planning, but current forest management does not operate on a sustainable development basis and still places timber management as the primary concern rather than forest management to meet peoples needs and wants. Sustainably meeting the needs and wants of people is sustainable development. Community forestry offers one means to more effectively address sustainable planning as it is a proven integrated planning tool.

Tenures, Government Policy And Market Failures

The current policy situation of public (crown) forest land ownership and private use (industrial tenures), coupled with the lack of public support for large bureaucracies to adequately manage the forest lands (Pearse 1987a) has led to at least five forest policy and market failures. Three of these are related to market failure: unpriced forest services; inadequate consideration for community survival; and inadequate silviculture (Haley and Luckert 1990).

The first market failure arises from the forestry sector having no market mechanism to clear or handle the exchange of forest services such as: outdoor recreation; wildlife habitat; subsistence food gathering; spiritual values; flood and avalanche control; water quality; soil stabilization; aesthetic values; and climate modification (ibid),

All Crown forest tenures in British Columbia provide their holders with exclusive rights to harvest timber but provide them with no opportunities to benefit from the production of other forest products. To some extent, public concern has internalized certain non-

timber values in the sense that firms have an incentive to produce or protect them in order to enjoy the benefits of good public relations, which may be a factor in reducing their operating costs. However, it is difficult to argue that this phenomenon will lead to optimum resource management and, indeed, most non-timber values remain externalities (Haley and Luckert 1995, 69).

The lack of a market mechanism results in these services or resources being unpriced and there is no economic incentive for the private land managers to produce them - especially at socially optimal rates. These social and environmental elements are not directly addressed through the market - so the government attempts to deal with them through legislation that restricts the rights of the tenure holder,

Intervention itself is never costless. It involves not only costs of public administration but also private costs of adjustment and compliance (Pearse 1990, 38).

The second market failure originates from forest-based industries (either directly involved or in support functions) being frequently associated with rural growth and development, and often forming the principal industry for small communities (Haley and Luckert 1990),

Communities with narrow economic bases are very vulnerable to fluctuations in the demand for the products that they produce. Given that much of Canada's resources are exported [especially timber products], these communities are susceptible to foreign business cycles, particularly those in large, industrialized western economies. Demand shocks are augmented by short term and long term supply shocks.

When the fortunes of the dominant industry in a community wane, the entire life and stability of the community suffers. Fluctuations in the dominant (sometimes single) industry are transmitted throughout the entire economic structure of the community because other sectors are generally totally dependent on it. The share of the dominant industry in total community employment is often a poor estimate of its importance and role in the community (Kubursi et al. 1996, 6).

Private firms are driven by profit, and as such have no incentive to factor in, or consider, the importance of community survival or regional economic/employment stability - other than when it affects the performance of the forestry operation. This results in the forestry sector often acting in the interests of profit, rather than in the interests of the people living in the area. This second failure is related to the previous one, as the importance of community health and survival (non-market considerations) are not addressed in the market clearing mechanisms of capitalism. This conflict has increased lately with the

perceived shortage of old growth and community interest in job creation and economic stability through value-added industry and eco-tourism.

The third market failure results from the mismatched profit and investment horizons of the public and private sectors. Haley and Luckert argue that as a result of,

...capital market imperfections and the relatively short time horizons of private planners (compared to public) planners, private forest firms invest in silviculture at a rate which is below the social optimum (Haley and Luckert 1990, 1).

Accordingly, most companies only undertaking basic silviculture in BC, with a limited number of forest companies undertaking incremental silviculture on Crown lands (with this work funded by the crown through Forest Renewal British Columbia).

A fourth market failure stems from the lack of competition within the BC timber market, with the supply of timber and demand often involving the same - or closely related - forestry firms. This lack of competition results in pricing which is arguably lower than what it should be, an argument that the United States Government has repeatedly used in all of the softwood tariff disputes (Mitchell-Banks 1986) and which some environmental groups support.

Related to the lack of competition within the BC Timber market is the lack of flexibility and innovation that has characterized the forest sector. This has arisen from a number of causes, including but not limited to: seemingly endless resources when the industry was established and for many years of operation; access to the resource which was not driven by truly competitive forces; strong markets to which British Columbia supplied a large volume of dimensional lumber and pulp and paper; the lower profitability of the forest sector compared to others such as High Technology, Biotechnology, Oil and Gas; and historically (until only the last few years) little government, public or corporate pressure to capture more value in the resource through value-added or non-dimensional lumber production.

Two propositions can be made regarding this dichotomy between public forest ownership and private industrial use. The first proposition is that property rights will influence the behaviour (Pearse

1990) of those owning and/or using the forest resources.⁸³ The second is that the forestry sector is currently facing two problems: inadequate husbandry of the resource and an imbalance of values attached to timber.⁸⁴

The BC forestry tenure system has been successfully used to exploit the province's natural endowment of old growth (that required no silviculture, and thus was arguably a freely provided feedstock) in order to accommodate industrial development (Marchak 1983). This was often accomplished by providing perpetual timber supplies to a few selected forestry companies. H.R. MacMillan, then the owner of the province's largest forestry company, spoke out against this policy sanctioning non-competitive timber allotment when it was first proposed in the second Sloan Commission,

A few companies would acquire control of the resource and form a monopoly. It will be managed by professional bureaucrats, fixers with a penthouse viewpoint who, never having had rain in their lunch bucket, would abuse the forest...Public interest would be victimized because vigorous, innovative citizen business needed to provide the efficiency of competition would be denied logs and thereby prevented from penetration of the market (Marchak 1983, 37).

This is precisely what has happened.

Community forests, could successfully address each of these two propositions. Community forests could be established with the appropriate set of property rights which could contribute to more responsible forest management including better husbandry of the resource, improved silviculture, and a wider spectrum of non-timber values being considered in management decisions.

Sustainable Development And Sustainable Forestry

The term 'Sustainable Development' first reached widespread public awareness with the 1987

⁸³Haley 1993

⁸⁴Pearse 1993

publishing of *Our Common Future*. Sustainable Development is,

...development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. (World Commission on Environment and Development 1987, 43).

Government and corporate policy is often driven by the concept of growth, whether it be the growth of populations, markets or service delivery. Growth is often linked with development and development and the environment are frequently debated policy concerns. The environment and development are not separate challenges and cannot be dealt with as if there were no relationship between them, in fact,

...they are inexorably linked. Development cannot subsist upon a deteriorating environmental resource base; the environment cannot be protected when growth leaves out of account the costs of environmental destruction. These problems cannot be treated separately by fragmented institutions and policies. They are linked in a complex system of cause and effect (ibid, 37).

The free enterprise system that is the underpinning of our capitalist market is constructed upon a number of fundamental notions, including but not limited to:

the notion that fair competition occurs within the marketplace, and that entrepreneurs succeed or fail based on how efficient their operations are and that the market system ensures that revenues and costs are kept in relationship with each other.

Hardin argues that one cannot consider the free enterprise system as just being a 'profit system' because it is more accurately a 'profit and loss system'. Competition does ensure low public prices of goods and services but it does not necessarily capture all the costs in delivering those same goods and services,

A comprehensive history of great business fortunes would show a disconcertingly large number that were made in a quite different way: the entrepreneur devised a silent way to commonise costs while continuing to privatize the profits. We will encounter this explanation repeatedly as we probe deeper into the workings of society. The system just

needs a label. The hidden rules of the game are these: Commonise Costs and Privatize Profits (Hardin 1985, 106-107).

Forestry is one sector in which this becomes a particularly difficult policy challenge. Very long rotation cycles complicate the matching of costs and benefits - often these are extended over three or more generations (80 years on the BC coast being the average commercial rotation age). The timber rights assigned to individuals or corporations provide returns or benefits to the rights holder, who has exclusive use of these harvesting rights and can market the timber.

This is in contrast to the multitude of benefits (many not cleared through a market system) the intact old-growth forest can provide to the public, which after harvesting are lost and thus become costs. When old growth is harvested and replaced with second growth, the replacement forest is not identical (sustainable) to that which was harvested,

Forests can be considered as both a renewable and non-renewable resource. Like agricultural products, trees can be cultivated on a rotational basis. However, many old-growth forests are not renewable in an economic sense, nor, in some cases, biologically. As a source of raw material, old-growth forests are likely to contain more higher quality timber than second-growth forests, which mature to harvest age over much shorter spans of time. Accordingly, old-growth timber can be regarded as an exhaustible mine. Old-growth forests can also be regarded as non-renewable when considering the many unique non-timber products and environmental services that they provide. Although second-growth forests may also provide amenity services, the dramatic changes to forest ecosystems caused by harvesting, and the subsequent younger-aged stands, are likely to change non-timber values considerably (Haley and Luckert 1995, 57).

Sustainable forestry can only occur when there is no net loss of opportunity experienced by future generations that results from decisions we make today. In reality, this does not appear to be possible, as every forestry decision made has a consequence to it - some of which, such as rotation times, are inter-generational. Sustainable forestry addresses the question of inter-generational equity, and perhaps by managing for a wider range of values over a larger spatial area, this could be more closely achieved on a very diverse landscape basis.

An alternative or parallel strategy to the diverse landscape approach to sustainable forestry would

be a smaller scale management unit which addressed more land management concerns than industrial forestry presently does. This could be accomplished through the appropriate combination of rights and regulations. Governments attempt to efficiently allocate the timber harvesting rights through tenures, and a key question in tenure allocation is how the rights embodied in a tenure should be awarded (Ministry of Forests 1991).

Community forestry which is generally smaller scale forestry than the current industrial forestry found in British Columbia offers another approach to achieving sustainable forestry.

This thesis will later propose the use of community forests that have tenure or title vested in a municipal government. This property rights arrangement is not a common property regime and is arguably not exactly the same as a private property regime either - as the property is being held for a community of people by an entity (municipal corporation) that acts on behalf of the community. There is a significant difference from property held by a publicly traded corporation (such as a forest company) whose mandate is to make a profit for its shareholders who might not reside in the area of operations.

Community forests can have a wide range of objectives, some of which are not profit driven - and in fact community forests could have a non-profit mandate while still being financially self-sufficient. There are lessons from common property management that could be applied to a community forest whose title or tenure is held by a municipality - as this would in essence represent a commons with much stronger defined property rights.

The Common Property Misconception

Community forestry can exist as a common property regime and is just one form of common property regimes found throughout many parts of the developing world. Other common property regimes include commons, communal grazing, and communal fishing. Common property offers a number of lessons in developing a community forest model for British Columbia.

Following the 1968 publication of Garrett Hardin's much cited paper *The Tragedy of the Commons*, the environmental and economic management of common property has been characterized by much controversy and conflict - much of which stems from a misconception. The confusion of common property with open access has been the root of this misconception (Nemetz 1992) and has led to the rejection of the concept of common property and cooperative management and the argument that only private property ensures responsible management.

While some common property management failures have occurred, a number of studies have indicated that success rather than failure is the norm (Gibbs and Bromley 1989). If this is the case, why has there been such a fascination and fixation on the concept of common property management failure or tragedy? Perhaps it is our bias for conflict and competitiveness,

Suppose that Hardin (1968) had written an essay entitled 'Cooperation of the commons'. Is it likely that this hypothetical essay would have been cited in the technical literature as frequently as the one on 'the tragedy of the commons'? It is well known that people have a morbid fascination with disasters and tragedies. But there is a second major reason: Western culture tends to overemphasize competition as opposed to cooperation, and this may be affecting scientists' world views as well. Ecologists such as Odum (1983) and den Boer (1986) have pointed out that Western ecologists have been overly indulgent with the concepts of competition, predation and parasitism, as opposed to positive ecological interactions such as cooperation, commensalism and mutualism (Berkes 1989a, 72).

This is reflected in the simple bipolar argument often used in preventing another 'tragedy of the commons', namely the simple breakdown of property ownership into either private property or open access.

This breakdown is incomplete and creates an artificial dichotomy that does not consider the four basic resource regimes: (1) state property regimes (*res publica*); (2) private property regimes; (3) common property regimes (*res communes*); and (4) non-property regimes (*res nullius* or open access) (Berkes 1989).

Each one of these regimes has a spectrum of rights and/or privileges and responsibilities

associated with them. Natural resource property regimes can be considered in terms of an authority system, or the possession or absence of defined rights and responsibilities. It is just the extent of these rights and responsibilities that distinguishes the first three property regimes, especially for common property,

Common property is not the free-for-all of open access resources. Individuals have rights and obligations in common property situations just as in private property situations. The difference between private and common property is not to be found in the nature of the rights and duties as much as it is to be found in the number of people to which inclusion or exclusion applies (Bromley 1992, 459).

Common property regimes have evolved all over the world, though not all have proven to be successful (Berkes and Feeny, 1990). Those common property regimes that have survived have a number of common characteristics including,

... groups emerge to manage common property when the user population lives close to the resource and is relatively small and when supply is moderately scarce compared to demand and is subject to multiple uses requiring management and coordination (Bruce and Fortmann 1992, 485).

Many of BC's communities are surrounded by the forest resource that employs their residents; these communities tend to be small; timber is increasingly scarce compared to demand; and the forests that supply the timber are subject to multiple uses that require much improved management and coordination. These factors mirror those attributed to successful common property management and should support the proposed BC community forests that would have even stronger defined property rights than are found in common property.

International studies have determined that common property rights regime has a greater survival rate if the following factors exist,

Groups seem to survive if they have clear-cut rules that are enforced by both users and officials, internally adaptive institutional arrangements, the ability to nest into external organizations for dealing with the external environment, and different decisions rules for different purposes. And their chances are better if they are subject to slow exogenous change (Bruce and Fortmann 1992, 485).

BC forestry offers a potentially supportive setting for municipal controlled community forestry which would represent a derivation of common property. Experience in the North Cowichan and Mission community forests has demonstrated that the rules are clear-cut and enforced by both officials and users; the *1979 Forestry Act* is a powerful piece of legislation that has been amended as new needs have arisen; two community forests (North Cowichan and Mission) have been successfully operated for almost 40 years demonstrating that municipal community forests can interface with larger external organizations (such as the Ministry of Forests); and different decision rules can be used for different processes, such as demonstrated by watershed management in the Greater Vancouver Regional District (GVRD), the community forests of the Districts of Mission and North Cowichan, and more recently community forest owned by the City of Revelstoke.

Finally, exogenous change is occurring within the forest sector and society at large. While at a superficial level the change may appear to be rapid, policy does not adapt as rapidly. This is well demonstrated by the concept of sustainable development.

The concept of development that was sustainable (in marked contrast to sustained development) was first raised in Canada earlier this century,

Each generation is entitled to the interest on the natural capital, but the principal should be handed on unimpaired (Canadian Conservation Commission 1915, no page).

Canada's *Green Plan*, a federal policy response to the issues raised by the Brundtland Commission, was released in 1991. The *Green Plan* was characterized more by renaming funds, shuffling personnel and resources, and proposing to address issues, rather than 'hard' or definite policy or even policy initiatives (Canadian Government 1991). A decade after the Brundtland Commission released its findings, and over 35 years after the concept first became publicly known, sustainable development is still being studied and discussed with progress to achieving it being difficult to implement and monitor.

Community forestry, consensus decision making and greater public participation in environmental and economic policy are all addressed in sustainable development, and are influencing land, resource management and community planning initiatives and policies (Dunster 1989, Morehouse 1989, Roseland 1992, Meadows et al 1992, Schrecker 1993).

The Potential Strengths Of Common Property and Community Forestry Management

The conceptual strength of common property and community forestry is the linkage between goals, strategy, actions, and consequences. Common property management involves a spectrum of combinations of both local-level and state-level systems (Berkes et al. 1991) as state regulations may apply to the lands, especially if the common property is state owned but community managed. With 95% of the forested land in BC being Crown or publicly owned, this cooperation between the two management systems is important for success.

Local goals and needs are best recognized and interpreted by those closest to them - and most cultures, certainly those in the Third World, emphasise the need for responsibility to be in the hands of the members of the community (Berkes and Farvar 1989). The interpretation of these goals leads to strategic policy development which can lead to actions being taken to achieve and maintain those policy goals.

Community involvement can effectively address the policy challenges of access equity and conflict resolution,

Common-property systems normally provide mechanisms for the equitable use of resources with a minimum of internal strife or conflict. Rules mutually agreed upon by all members of the group provide an efficient means of conflict resolution and reduce 'transaction costs' in the enforcement of those rules. Often, users themselves point out that their local rules serve primarily to reduce conflict in resource use, over and above other possible functions (Berkes and Farvar 1989, 11).

The public has the ability to directly or indirectly (through appointed or elected positions)

participate throughout the entire policy process - to a much greater degree than what is currently possible with crown forests and the public participation process. The success or failure to achieve the policy goals is realized primarily by the community residents and community forestry staff and they have to live with the successes and failures of their policy making and implementation.

The participation in policy generation and implementation, and sharing the successes and failures of the community forest leads to a sense of involvement, concern and 'ownership' that does not exist for the province's crown forests. This 'hands on' involvement can lead to better management of timber and non-timber values.

Community forestry can act as a unique means of accomplishing integrated planning, in which social, environmental and economic concerns are effectively addressed (Mitchell-Banks, 1994b). Integrated Planning requires the involvement of the community residents in order to integrate or combine their knowledge, experience, ideas, concerns, needs and wishes into the land planning. Community residents have a number of different relationships to the resources in question, and it is this spectrum of relationships that can lead to a more holistic perspective on the management challenges,

Instead of emphasizing the ownership status of a resource, it may be more useful to examine the diversity of relationships involving property and access conditions under which a resource is held (Grima and Berkes 1989, 38).

This strategy essentially removes property ownership as the primary decision factor and replaces it with the uses required of the resource. It is this involvement or cooperation with the community residents that distinguishes integrated planning from the more conventional planning processes.

To be successful, integrated planning has to involve as many viewpoints and concerns as possible and address the needs and goals of the local residents involved. These planning aspects are similar to those in community forestry, suggesting that integrated planning can be accomplished through utilizing community forestry as a planning vehicle. Community forestry has a history of resource management involving:

- 1) smaller-scale, more environmentally sensitive forest management practices;
- 2) a stronger connection likely between forest management revenues and costs;
- 3) high potential for resolving local resource-use conflicts;
- 4) a higher degree of meaningful public involvement in decision-making;
- 5) increased awareness and interest of the public in forest management;
- 6) greater opportunity to maintain stability of local economic activity - demonstrated by the very long standing (often centuries old) European community forests in existence and the spin off economic activities associated with them.

Community forest management can act as an interface, in which environmental and ecological concerns; political as well as sociological considerations; equity issues; and economic and local business implications can be addressed. The forest can be managed to produce a variety of outputs, including: timber; recreation; food; medicine; spirituality; land bank possibilities; aesthetic/landscape considerations; existence, option and bequest values; fish and wildlife; plants; biodiversity; education; experimentation; art and tourism. Dunster (1989) cites the United States Forest Service (no date) who suggested that a community forest could be established to aid local business and at the same time provide: public profit; employment; recreation opportunities; benefits to wildlife; aid in flood and erosion control; stabilise the local water supply; scenic values; and enhance the local quality of life (general welfare).

Community forestry can act as a planning tool and can be compared to a tree. The roots represent the community forestry planning and management process. The roots (representing the community forest process) take up or address the inputs (the planning concerns and considerations) and plan or convert them to the outputs or desired planning outcomes (the trunk and the branches) (Mitchell-Banks 1994b).

The community which controls the forest area, the culture of the community and the conflict that exists within and without the community will influence the effectiveness of community forestry as a planning tool. Any tool is only as effective as the user - this holds as true for community forestry as it does for any hammer, computer or machine device.

The Potential Weaknesses Of Common Property and Community Forestry Management

Common property and community forestry management as planning and resource management tools are not failsafe. The potential weaknesses of common property management and community forestry obviously include both the technical aspects of forestry management itself as well as the community involvement and decision making that contribute to the technical decisions. This section will only focus on the community involvement and decision making, the essential elements of community forestry which serve the role of linking the community with the forest itself. Some of the potential weaknesses include the following:

1. Low levels or inadequate public participation in the management of the community forestry;
2. Failing to equitably address the goals and desires of the community members;
3. Poor linkages between goals, strategy, actions and consequences;
4. Non-sustainable forestry management goals of the local population;
5. Property rights that are poorly monitored, managed and/or enforced.

Insufficient public participation can lead to forestry decisions that do not incorporate the goals and desires of the community members, and at times the decisions may conflict with some of the community goals. Failing to involve community members can create a sense of loss of control or ownership over the community forest. This feeling of separation between the residents and the forestry management team and/or the community forest itself is no different than that sometimes associated with industrial forestry, in which the open houses only permit review of forest management plans and do not promote involvement for the entire planning process (Vance 1990, Duffy 1991). Community involvement is a prerequisite for community forestry to succeed and was an important lesson from the Ontario community forest pilot project⁸⁵.

Low levels or inadequate public participation in the management of the community forest can also lead to the forest failing to equitably address the goals and desires of the community members.

⁸⁵Harvey 1998b

This can stem from goals being driven or influenced by a minority of the populace and not always reflecting the desires of the larger community. An example of this might centre around harvesting in which there are decisions to harvest at levels that the community as a whole would not agree to. Too low a level, perhaps driven by an environmental group agenda, may result in trees becoming over mature and increasingly susceptible to disease and infestation or reduce the profitability of the community fores which would impact its management. Too high a harvest rate, perhaps driven by the interests of the local mill owner or even an elected official, could result in a non-sustainable harvest level. An example of this was a mayor of a Swedish community who publicly supported a lower cut but privately accelerated the harvest level of the community forest against the advice of the forestry staff in order to generate additional municipal revenue.⁸⁶

Poor linkages between goals, strategy, actions and consequences can also occur in community forestry. This can stem from not only inadequate public participation and/or inequitable planning and management, but also from poor planning and management. Monitoring planning decisions and mediation of decision outcomes are both essential planning stages (Government of Ontario 1989). The Ontario community forestry pilot project revealed the importance of the relationship between local public input and forest management decision making using Decision Support Systems (DSS).⁸⁷ Effective planning improves, but does not guarantee the probability of success in linking goals, desires and needs to actions and consequences. Effective and ongoing community involvement can assist in these linkages.

Another potential weakness would be the local population having non-sustainable forestry management goals. Sustainable forestry has to involve forest management that does not exceed the carrying capacity of the land base. Community involvement in the planning and decision making does

⁸⁶Groven 1994

⁸⁷Harvey 1998b

not guarantee that sustainable forestry will result, it is possible that community residents might chose to accelerate the harvest rate to address short term revenue and/or employment goals at the expense of long term ones. There has to be a balance between environmental productivity and economic viability. Community forestry needs to generate sufficient revenues to meet the management expenses. The Ontario community forest pilot project highlighted the importance of community freedom to manage financial affairs independent of the provincial government as well as the difficulty in weaning the pilot projects off government funding.⁸⁸ A community forest must be economically viable and if community needs, such as park space, water quality, etc., reduce the profitability then there can be a per capita subsidy by community residents to make up the shortfall as is the case for the Oslo community forest.⁸⁹ Sustainable forestry finds a balance between environmental, social and economic concerns.

Property rights that are poorly monitored, managed and/or enforced can also create challenges. While touring Copenhagen's community forest in 1994 with the community forester, the author discussed the high maintenance costs resulting from vandalism of public facilities within the forest. Outbuildings, and play areas for children had been damaged, graffiti painted onto surfaces and bottles and drug paraphernalia were evident. The community forest staff did not have the budget for patrols and monitoring of the area to prevent such activities from occurring and had essentially accepted that while this was not desired activity, there was little that they could do to prevent it. Unauthorised harvesting of trees or non-timber forest products would result in a loss of revenue, a disruption of planning and inventory management and potential environmental damage. Failing to monitor, manage and enforce property rights creates an open access regime which can lead to not only economic loss to the community but also environmental degradation (Berkes 1989, Bromley 1992).

⁸⁸ibid

⁸⁹Gimse 1994

The Paradigm of Community Forestry

Community forestry is centred around the primary concept of local control and decision making in the management of the forest lands surrounding a community to create local benefits (Dunster 1989). The local control and decision making should result in forest management that is more informed, as the decision makers live in the area and are in touch with local concerns, needs and hopes. With community forestry, the decision makers also have to live with the consequences of any decisions (good or poor) that they make, which can lead to greater effort being made in decision making.

The local involvement by the community members creates a sense of 'ownership' or responsibility over the policy and decision making that involves 'their' forest lands (Dana 1918, Dunster 1989). People working within the community forest are more prone to work harder and more conscientiously, as they are looking after 'their own' forest, and thus their own interests.

Community forests in the developed world can exist under a number of different land ownership forms, and these forms can involve combinations of ownership. Private property, leased land, land trusts, tenured land from the crown, land under contract, and other property rights' vehicles can all be utilized.

CHAPTER SUMMARY

This chapter addressed the fourth, fifth and sixth thesis objectives.

The fourth thesis objective was to investigate community forestry in an international setting, with a particular emphasis on Sweden (due to social and economic similarities to Canada). Community forests occur around the world with the philosophy and practices varying widely with physical and cultural settings, socio-economics and governance all playing determining roles. One common community forestry theme is local control and local decision making.

The important historical role of the villagers' need to cooperate in establishing the community

forests was discussed. This cultural tradition of cooperation is a primary contributing factor to the long (many centuries) and successful history of community forestry in Sweden. Community forests serve a number of roles with the location of the forest and the local socio-economic status of the municipality determining management philosophy - northern forests tend to emphasize harvesting while southern forests (closer to large population centres) place a greater emphasis on recreational values. The role of the community forest as a land bank for urban expansion and its ability to increase urban density was also discussed. Community forests make an important contribution to the local economies and the forests can be managed by either employing municipal or private contractor forest staff.

The fifth thesis objective was to conduct a Canada wide survey to determine the levels of interest and awareness in community forestry. The national survey indicated that the most significant community forest initiatives had occurred in Quebec, Ontario and BC. Quebec has had the longest history (beginning in 1911) and the current 'Inhabited Forests' initiative has multiple stakeholder involvement, a multiple forest product and service focus, and emphasises the role of people in and around the forest.

Ontario has a more recent history of community forestry and in 1991 established four community forest pilots. The intention behind this initiative was to improve forest management and increase the role of people in forest development. There was a deliberate effort to use the pilots to develop forest policy. Today only one of the community forest pilots is actively running - and significantly this was the only community forest to have control over the access and management of forest land (as an Indian Reserve the land in the pilot is essentially collectively owned by the Band, though held by the Crown in a fiduciary role). Five lessons were learnt from the Ontario pilots: 1) the importance of local buy-in; 2) the importance of freedom to manage financial affairs independent of the provincial government; 3) how difficult it was to wean the pilot projects off government funding; 4) the importance of the relationship between local public input and forest management decision making using Decision Support Systems (DSS); and finally 5) Community forestry is an evolutionary process and there can be no sudden

transition to a number of community operations.

Interestingly, in establishing the pilot studies, the Ontario provincial government did not award any tenured land. This was a fatal flaw to the longevity of the project, as community forestry is centred around local control and local decision making, and without tenure, the communities were unable to exert their influence over local forestry management strategies.

In British Columbia, the three existent community forests in British Columbia were reviewed. One forest is held under fee simple land and the other two operate under TFLs. Four well known community forest proposals were reviewed with a view to providing insight into recent BC community initiatives to establish community forests.

The establishment of more community forests in British Columbia could potentially address many of the community planning concerns and challenges faced by the forest sector. This potential is indicated by the strong support for community forestry by the three communities with existing community forests, and the number of community forestry initiatives underway. The award of Forest Licences to communities is a tacit policy move by the provincial government that acknowledges the value of community forestry. The increased number of community forests could contribute to the establishment of a forest culture in the province, while at the same time increasing the general level of public forestry knowledge, and increasing the use of the forest land base surrounding many communities, with timber and non-timber values being addressed.

The sixth thesis objective was to investigate community forestry as an integrated planning tool and how it can assist in establishing more sustainable forestry. An explanation is given on how community forestry can serve as an effective interface between the complexities of community planning and the challenges of forest management. Community forestry affords a means for a community to control and manage the forested land base to achieve community defined goals and needs, with the benefits from the resource accruing to the community.

The next chapter will address the levels of awareness and interest in community forestry across British Columbia determined by the use of a provincial survey.

CHAPTER V.

PROVINCIAL COMMUNITY SURVEY

OVERVIEW OF CHAPTER

This chapter addresses the seventh thesis objective, which is to conduct a provincial survey of the members of the Union of BC Municipalities to determine their levels of awareness of, and interest in, community forestry. This survey was conducted in partnership with the UBCM with funding assistance provided by Forest Renewal BC (FRBC).

The survey investigated: the community levels of awareness and interest in community forestry; the community experiences, needs and preferences for direct involvement in forest management; and the status of any municipal government or NGO initiatives in community forestry.

The survey involved three research approaches: a mail-out questionnaire; personal interviews of a stratified sample of the mail-out respondents; and focus groups to three stratified classes of communities. The survey methodology is explained with numerous theoretical references. The summarized survey results are provided and the raw results are accessible in Appendices D and E. A qualitative and quantitative analysis of the surveys is provided. The survey results will be used as background information for community tenure design which is addressed in chapter six.

BRIEF OUTLINE OF THE SURVEY RESEARCH

There is increasing enthusiasm in British Columbia for the establishment of forest management units controlled at the local level by First Nations, communities, municipalities and regional districts. While the notion of community forestry is gaining considerable support in many parts of rural British Columbia and, in principle at least, is endorsed politically, there is very little reliable information upon which to develop policy in this regard.

It is important to determine the level of community awareness, understanding and interest. It is also important to determine what community objectives might entail, how much land is required, and what are some of the needs and concerns of communities who are interested in community forestry. The survey was carried out in order to address these important questions and create a source of base-line information for tenure design and further studies in this area.

The Union of BC Municipalities is an association that represents the interests and concerns of the municipalities and regional districts across BC. The UBCM has an executive composed of Mayors, Councillors and Regional District Directors from communities across the province. The UBCM works with senior levels of both the provincial and federal government to influence current legislation, regulations and funding arrangements (UBCM 1994). To constrain the number of potential communities to a population that was readily identifiable and which had legal status, only UBCM communities were surveyed.

There are five types of communities within the UBCM. Cities, towns, villages and district municipalities are all municipalities,

Municipalities are general-purpose local governments which provide a wide range of services and regulate a variety of activities. Eighty-three percent of BC's population reside within a municipality, even though the entire area encompassed by the municipalities is less than 1 percent of the provincial land area (Bish 1990, 3).

The second form of general-purpose type local government is the regional district,

Twenty-nine regional districts encompass all of the province except the Stikine area of northwestern BC. Regional districts are governed by a board of directors consisting of mayors, or aldermen from municipalities within the regional district and directors elected from areas outside municipal boundaries. Regional districts are the general-purpose local government for unincorporated areas and also perform some functions for both unincorporated and municipal areas within the district (Bish 1990, 3).

A deliberate research design decision was made not to include First Nations communities in the survey. This was due to the need to keep the research population to a manageable level (there are 196 Indian Bands in BC and many more Tribal Councils and Associations), as well as the need to study

communities that shared one common body of legislation and regulation. First Nations communities fall under Federal legislation and regulation, and have a significantly different spectrum of opportunities and challenges than UBCM communities. Future research will address the levels of awareness and interest in community forestry in First Nations, and what challenges and opportunities they perceive and may face in establishing community forests.

The Sechelt Nation is an exception with regard to legislation and regulation to the other First Nations communities in British Columbia. The Sechelt Nation obtained Self-Government in 1986 (Taylor and Paget 1988). A super-municipal form of government was created through the federal *Sechelt Indian Band Self-Government Act (1986)* and the provincial *Sechelt Indian Government District Enabling Act (1987)*. The Sechelt Indian Government District is a member of the UBCM (Union of BC Municipalities 1994).

PROVINCIAL MAIL-OUT SURVEY

A province-wide survey of the 179 member communities of the Union of BC Municipalities was conducted to determine their awareness of and interest in community forests, as well as the needs, desires and goals of the communities.

The survey received funding assistance from Forest Renewal BC (FRBC), and was conducted with office support from the Union of British Columbia Municipalities (UBCM). The UBCM agreed to fund the postage for the survey, assist in the distribution of mail-out material, provide access to some phone and fax time, as well as provide a mailing list of their membership, including contact persons.

The provincial survey was carried out in two phases: a mail-out survey was conducted in May 1996 through the rest of the year. This was followed in early to mid 1997 by personal interviews of a

stratified sample of the mail-out survey respondents.⁹⁰

The mail-out survey was sent to all of the 179 UBCM communities allowing for the study of an entire population rather than just of a sample. The surveys had a postage-paid self-addressed envelope with the response form to encourage participation and were sent via bulk mail to the attention of the community administrator or clerk (depending on the size) - as is the case with all UBCM communications.

The mail-out survey questions were closed and quantitative in nature.⁹¹ Examples of closed, quantitative questions are "Prior to receiving the survey, what was your level of awareness of the concept of Community Forestry?" (rated on scale of 1 [low] to 7 [high]) and "What is your community's level of preference for direct involvement in forest management in the forest land surrounding or within an hour's drive or your community" (rated on scale of 1 [low] to 7 [high]). A specific, quantitative value was sought that could be statistically evaluated.

The mail-out survey involved six steps:

Step One - pre-notification. A letter introducing the graduate student and the purpose of the survey was sent out to all of the UBCM communities. This letter encouraged the communities to be as cooperative as possible and to take the time to fill the survey out in an accurate, complete and timely manner.

Step Two - first mail-out. The survey form was mailed out to all of the communities. The survey included a letter from the UBCM which introduced the student, explained the purpose of the survey and made reference to the previously sent UBCM pre-notification letter (which had been sent to encourage compliance with the survey).

⁹⁰Cohen 1994

⁹¹Cohen 1994

Step Three - second mail-out. The survey form was mailed out to all of the communities who had not responded to the first mail-out, with a letter from the graduate student referring to the first mail-out, and asking them to complete this second mail-out if the first was either misplaced or failed to arrive. The letter again introduced the graduate student, the purpose of the survey, and made reference to the UBCM prenotification letter to encourage compliance.

Step Four - once the receipt and compilation of all mail surveys was completed, the data was entered into an Excel 5.0 spreadsheet for analysis.

Step Five - follow-up telephone calls were made that encouraged the non-responding communities to complete and submit the survey.

Step Six - thank you letters were sent out to those communities that completed the survey, with the letter also serving to prenotify the communities that some of them were to be selected for personal structured interviews by the graduate student.

A copy of the provincial survey form is provided in Appendix C. An evaluation of the responses has been completed and below are some of the highlights.

Highlights Of Mail-out Survey Results

Mail-out survey response rates are provided in the following series of tables, with a brief written explanation of the statistics provided. The survey forms were filled out by the elected or hired community official to whom the community administrator or clerk had directed the survey form to. Both elected and hired community officials completed the survey forms.

In reading the following results, it should be noted that all the scale questions are evaluated on a scale from one to seven, with seven being high, one being low.

Table 5.1 Response to Mail-out Survey

	City	District	Town	Village	Regional District	Total
Number	30	38	5	23	16	112
Rate (%)	69.8	73	35.7	54.8	57.1	62.6
% Total	26.8	33.9	4.5	20.5	14.3	100

Table 5.1 indicates the overall response rate of 62.6%, which represents 112 of the 179 members of the UBCM. This response rate is in excess of the 60% threshold that is required for a good postal survey (Gray and Guppy 1994).

The two lowest response rates occur for towns and villages. This does not appear to result from a lack of interest in the concept of community forestry. The researcher was told repeatedly by people in villages and towns that their workloads were simply too demanding to address the survey as a result of down loading of responsibilities coupled with transfer payment cuts from both levels of governments.

Table 5.2. Level of awareness of the concept of community forestry prior to receiving survey.

	City	District	Town	Village	Regional District	Total
Average	4.8	4.8	5.8	4.9	4.5	4.87
Minimum	1	1	3	1	1	1
Maximum	7	7	7	7	7	7
Median	5	5	7	5	4	5
Mode	6	7	7	7	7	7
Standard Deviation	1.8	2	1.8	2	2.1	1.93

2 missing cases

Table 5.2 indicates the level of community awareness prior to receiving the mail-out survey. This indicates a high awareness, with an average of 4.87 on a scale of 7. Note the high modal values for

awareness. Every community type except the city had seven, the highest scale value, as the mode - and even the cities had a value of six. This coupled with the median values - only one at four, the rest either five or seven - indicate an awareness that is skewed to the low side of the scale.

Level of awareness was analysed both as a categoric variable and as a measurement scale variable. A Chi-Square test of independence between level of awareness and community type indicated no significant differences ($\chi^2=14.85$, $df = 24$, $P\text{-value} = .98$). This finding was supported by an analysis of variance to compare mean level of awareness across communities, which showed no statistically significant difference ($F \text{ stat} = 0.32$, $P\text{-value} = .86$).

This lack of statistical difference in the levels of awareness was unanticipated as there was a pre-survey assumption that the more rural communities (largely towns, villages, districts, regional districts) would have a greater awareness given the importance of forestry in the rural economies of many communities.

The 1996 Suzuki Foundation Report *Chopping up the Money Tree*, presented data indicating that 141 of a total of 441 individual BC communities were considered to be highly dependent on forestry (Schwindt and Heaps 1996). Many of these communities were unincorporated and not members of the UBCM. All of them were rural and outside of the Greater Vancouver area. An earlier study undertaken for the 1991 BC Forest Resources Commission found that over 200 provincial communities were primarily dependent upon the forest industry (Price Waterhouse 1992).

In short, there is a high level of awareness of community forestry amongst the communities in British Columbia.

Table 5.3 Means by which communities have been made aware of the concept of community forestry

	City	District	Town	Village	Regional District	Total
Newspaper (#)	10	10	1	3	1	25
Newspaper (%)	34.5%	29.4%	20%	14.3%	6.7%	24%
Magazine (#)	6	9	0	1	1	17
Magazine (%)	20.7%	26.5%	0%	4.8%	6.7%	16.3%
Journal (#)	12	4	2	2	2	22
Journal (%)	41.4%	11.8%	40%	9.5%	13.3%	21.2%
Report/Study (#)	11	14	1	11	7	44
Report/Study (%)	37.9%	41.2%	20%	52.4%	46.7%	42.3%
Radio (#)	3	1	1	1	0	6
Radio (%)	10.3%	2.9%	20%	4.8%	0%	5%
Television (#)	3	1	1	1	0	6
Television (%)	10.3%	2.9%	20%	4.8%	0%	5.8%
Conference (#)	8	9	2	9	4	32
Conference (%)	27.6%	26.5%	40%	42.9%	26.7%	30.8%
Word of Mouth (#)	15	14	1	11	7	48
Word of Mouth (%)	51.7%	41.2%	20%	52.4%	46.7%	46.2%
Government (#)	14	17	3	12	10	56
Government (%)	48.3%	50%	60%	57.1%	66.7%	53.8%
Other (#)	6	16	2	9	6	39
Other (%)	20.7%	47.1%	40%	42.9%	40%	37.5%

8 missing cases, 104 valid cases

Table 5.31 Top five means by which communities have been made aware of the concept of community forestry

City	District	Town
1. Word of mouth	1. Government	1. Government
2. Government	2. Other	2. Journals
3. Journals	3. Word of mouth	3. Conference
4. Reports/Studies	4. Reports/Studies	4. Other
5. Newspaper	5. Newspaper	
Village	Regional District	
1. Government	1. Government	
2. Reports/Studies	2. Word of mouth	
3. Word of mouth	3. Reports/Studies	
4. Conference	4. Other	
5. Other	5. Conference	

Tables 5.3 and 5.31 indicate how the communities became aware of community forestry. The government was the most common source of this information, with almost half of the communities indicating that this was a source. Word of mouth and reports/studies were two sources indicated by over 40% of the communities responding. Conferences were cited as a source by approximately one-third of the communities, with newspapers and journals serving as sources for approximately one-fourth and one-fifth of the communities respectively.

Neither radio nor television were major information sources that raised the awareness of community forestry. 'Other' sources of information included the Ministry of Forests, Forest Renewal British Columbia, Forest Resources Development Agreement (FRDA) and personal exposure of the recipients to the community forests of Mission, North Cowichan and Revelstoke.

Table 5.4 Level of understanding of the concept of community forestry prior to receiving survey

	City	District	Town	Village	Regional District	Total
Average	3.9	4.7	6	4.6	4.2	4.47
Minimum	1	1	4	1	1	1
Maximum	7	7	7	7	7	7
Median	4	5	7	5	4	5
Mode	3	5	7	5	3	5
Standard Deviation	1.8	2	1.4	1.9	2.1	1.94

7 missing cases

Table 5.4 provides the statistics for the level of community understanding of the concept of community forestry prior to receiving the mail-out survey. Intuitively, one would expect that the average level of understanding would be equal to or lower than the level of awareness - and this proved to be the case. The average decrease between community awareness and understanding is .4.

The modal and median scores for understanding were more varied across community type and generally lower than those for awareness, with the results not being as strongly skewed to the low side of the scale as they were for awareness.

A Chi-Square test indicated that there were no significant differences in the levels of understanding between the community types ($\chi^2=19.02$, $df = 24$, $P\text{-value} = .75$).

This was supported by an analysis of variance to compare means across community type, which also indicated no statistically significant difference ($F \text{ stat} = 1.62$, $P\text{-value} = .18$).

This lack of significant difference in understanding was again unanticipated, as there was an assumption that the more rural communities (largely towns, villages, districts, regional districts) would have a greater understanding given the importance of forestry in the rural economies of many communities.

Table 5.5 Means by which some understanding of the concept of community forestry was obtained

	City	District	Town	Village	Regional District	Total
Newspaper (#)	7	6	1	2	2	18
Newspaper (%)	26.9%	18.2%	20.0%	9.5%	13.3%	18.0%
Magazine (#)	7	9	0	2	1	19
Magazine (%)	26.9%	27.3%	0%	9.5%	6.7%	19%
Journal (#)	12	7	2	4	2	27
Journal (%)	46.2%	21.2%	40.0%	19.0%	13.3%	27.0%
Report/Study (#)	12	11	1	11	7	42
Report/Study (%)	46.2%	33.3%	20.0%	52.4%	46.7%	42.0%
Radio (#)	3	1	1	1	0	6
Radio (%)	11.5%	3.0%	20.0%	4.8%	0%	6.0%
Television (#)	2	2	1	1	0	6
Television (%)	7.7%	6.1%	20%	4.8%	0%	6.0%
Conference (#)	8	9	2	11	3	33
Conference (%)	30.8%	27.3%	40.0%	52.4%	20.0%	33.0%
Word of Mouth (#)	11	15	1	11	7	45
Word of Mouth (%)	42.3%	45.5%	20.0%	52.4%	46.7%	45.0%
Government (#)	11	17	3	14	8	53
Government (%)	42.3%	51.5%	60.0%	66.7%	53.3%	53.0%
Other (#)	5	16	2	9	4	36
Other (%)	19.2	48.5	40	42.9	26.7	36

100 valid cases, 12 missing cases

Table 5.51 Top five means by which communities gained some understanding of the concept of community forestry

City	District	Town
1. Journals	1. Government	1. Government
2. Reports/Studies	2. Other	2. Conference
3. Word of mouth	3. Word of mouth	3. Journals
4. Government	4. Reports/Studies	4. Other
5. Conference	5. Conference	
Village	Regional District	
1. Government	1. Government	
2. Reports/Studies	2. Reports/Studies	
3. Conference	3. Word of mouth	
4. Word of mouth	4. Other	
5. Other	5. Conference	

Tables 5.5 and 5.51 address the means or vehicles through which communities obtained some understanding of the concept of community forestry. Intuitively, one would expect a marked similarity to the awareness scores.

This proves to be the case, with Government once again the highest at 53.0% (awareness was 53.8%), word of mouth at 45.0% (awareness was 46.2%), reports/study at 42.0% (awareness was 42.3%), conference at 33.0% (awareness was 30.8%) and journals at 27.0% (awareness at 21.2%).

The category 'other' for understanding scored 36.0% (awareness at 37.5%) and included exposure to the community forests of Mission, North Cowichan and Revelstoke, feasibility studies, and university courses. Again, television and radio were not important vehicles or means for communities obtaining an understanding of the concept of community forestry.

**Table 5.6 Interest in increasing awareness
of the concept of community forestry**

	City	District	Town	Village	Regional District	Total
Respondent #	27	31	5	20	15	98
Sample Size #	30	38	5	23	16	112
Percent (%)	90%	81.6%	100%	87%	93.8%	87.5%

Table 5.6 indicates the level of community interest in increasing their awareness of the concept of community forestry. The average community interest is 87.5%, with the lowest level at 81.6% for Districts still representing a strong degree of desire to obtain more information.

A Chi-Square test indicated that there were no significant differences between the communities in the proportions wanting to increase their understanding of community forests ($\chi^2=2.68$, $df = 4$, P -value = .61). This was unanticipated as before the survey there was an assumption that the more rural communities (largely towns, villages, districts, regional districts) would have a greater desire to increase their understanding given the importance of forestry in the rural economies of many communities.

The few communities who indicated that they were not interested raised a limited number of concerns. Not a single community indicated that they did not believe in the concept of community forestry. There were communities that believed in the concept but raised issues about the lack of land/tenure availability, community capacity, and potential conflict with industry and MoF. Those communities focussing on other concerns cited lack of staff, airport devolution (from Federal government) and infrastructure needs.

Table 5.7 Preferred means of increasing level of understanding of the concept of community forestry

	City	District	Town	Village	Regional District	Total
Newspaper (#)	3	3	1	1	1	9
Newspaper (%)	11.1%	9.7%	20.0%	4.8%	6.3%	9.0%
Magazine (#)	4	4	0	1	0	9
Magazine (%)	14.8%	12.9%	0%	4.8%	0%	9.0%
Journal (#)	13	5	2	7	2	29
Journal (%)	48.1%	16.1%	40.0%	33.3%	12.5%	29.0%
Report/Study (#)	23	21	4	14	13	75
Report/Study (%)	85.2%	67.7%	80.0%	66.7%	81.3%	75.0%
Radio (#)	1	1	0	2	0	4
Radio (%)	3.7%	3.2%	0%	9.5%	0%	4.0%
Television (#)	1	2	0	2	0	5
Television (%)	3.7%	6.5%	0%	9.5%	0%	5.0%
Conference (#)	13	14	1	13	7	48
Conference (%)	48.1%	45.2%	20%	61.9%	43.8%	48.0%
Word of Mouth (#)	2	3	1	2	3	11
Word of Mouth (%)	7.4%	9.7%	20.0%	9.5%	18.8%	11.0%
Government (#)	9	12	1	13	7	42
Government (%)	33.3%	38.7%	20%	61.9%	43.8%	42%
Other (#)	5	6	1	5	1	18
Other (%)	18.5%	19.4%	20	23.8%	6.3%	18.0%

100 valid cases, 12 missing cases

Table 5.71 Top five means by which communities would prefer to gain additional understanding of the concept of community forestry

City	District	Town
1. Reports/Studies	1. Reports/Studies	1. Reports/Studies
2. Journals	2. Conference	2. Journals
3. Conference	3. Government	
4. Government	4. Other	
5. Other	5. Journals	
Village	Regional District	
1. Reports/Studies	1. Reports/Studies	
2. Conference	2. Conference	
3. Government	3. Government	
4. Journals	4. Word of mouth	
5. Other	5. Journals	

Tables 5.7 and 5.71 indicate the means by which the communities would prefer to increase their understanding of the concept of community forestry. Access to a report/study at 75.0% is dramatically higher than the second choice of a conference at 48.8%. Government extension rates a 42.0% score, while journals receive 29.0%. 'Other' sources received a score of 18.0% and included receiving copies of this thesis and survey as well as articles and information being sent over the Internet. Once again, radio and television do not play an important role. A report/study is more cost effective than television, in which a 30 minute broadcast quality video can cost approximately \$100,000. A report/study is also far less expensive than the costs of putting on a conference as well as the travel and accommodation costs for the delegates.

Figure 5.1 Comparison of means by which understanding was obtained and the preferred sources to increase awareness

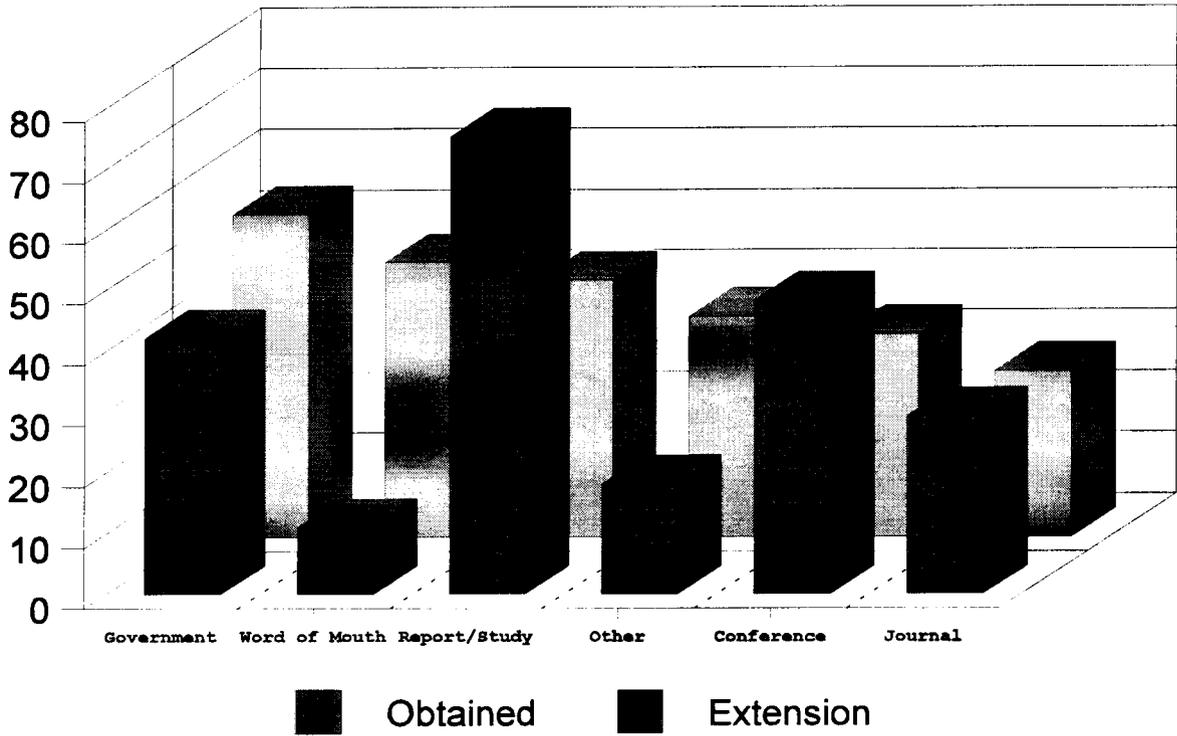


Figure 5.1 compares the means by which the communities obtained some understanding of the concept of community forestry with their preferred means of increasing their understanding and suggests some effective extension vehicles.

Table 5.8 Communities' level of experience with direct forest management

	City	District	Town	Village	Regional District	Total
Average	3.9	4.1	3.8	3.8	4.6	4.06
Minimum	1	1	1	1	1	1
Maximum	7	7	7	7	7	7
Median	4	5	4	3	5.5	4
Mode	1	1	4	1	7	1
Standard Deviation	2.2	2.4	2.4	2.6	2.4	2.35

109 valid cases, 3 missing cases

Table 5.8 presents the results for community level experience with direct involvement in forest management in the forest land surrounding or within an hour's drive of the community. The average for all communities is 4.06, and all communities scored an average experience level in excess of 3.5 (half way along the scale).

A Chi-Square test indicated that there were no significant differences between the communities in the levels of direct involvement in forest management ($\chi^2=16.99$, $dF = 24$, $P\text{-value} = .85$).

This was supported by an analysis of variance to compare means across communities, which indicated no statistically significant difference ($F \text{ stat} = 0.32$, $P\text{-value} = .86$).

This lack of statistical difference was unanticipated as there was a pre-survey assumption that the more rural communities (largely towns, villages, districts, regional districts) would have had a greater involvement given the importance of forestry in the rural economies of many communities.

Table 5.9 Reasons for no community direct involvement in forest management

Lack of access to forest land or potential forest land	40.8%
Legislative barriers	24.5%
Lack of resources (staff or finances)	53.1%
Lack of awareness	26.5%
Lack of interest	24.5%
Barriers resulting from existing Ministry of Forests Administration	18.4%
Other	46.9%

63 missing cases, 49 valid cases

Table 5.9 indicates the reasons behind the lack of direct involvement in forest management. Lack of resources was cited by over half of the communities. This was closely followed by the lack of access to forest land or potential forest land at 41.8%. The category ‘other’ received a score of 46.9% with the primary reasons given as other planning priorities and answers related to the lack of resources and forest land access.

Table 5.10 Means by which communities were directly involved in forest management

Control or ownership of municipal or crown forest land	33.3%
Control or ownership of land previously forested	12.8%
Control or ownership of land that could potentially support a forest	11.5 %
Involvement in the MoF forestry planning process	66.7%
Involvement in the MoF forestry operations process	21.8%
Other	48.7%

34 missing cases, 78 valid cases

Table 5.10 indicates that involvement in the MoF forestry planning process was the dominant means of direct involvement for two-thirds of the responding communities. Control or ownership of municipal or crown forest land was cited by one-third of the respondents. The category ‘other’ primarily

included watershed management/planning and involvement in regional forestry planning exercises such as Timber Supply Reviews (TSRs), Land and Resource Management Plans (LRMPs) and Land and Resource Use Plans (LRUPS).

Table 5.11 How control or ownership of municipal or Crown land occurred

Municipality has a tenure over some crown land	31.9%
Municipality owns some forest land	51.1%
Municipality owns land that either had or could support forest	36.2%
Other	48.9%

65 missing cases, 47 valid cases

Table 5.11 indicates that just over half of the municipalities own some forest land, with over a third owning land that either had forest or could potentially support forests. Almost one-third of the communities have some form of tenure over some crown land. Almost half of the communities responded in the 'other' category with most of the answers indicating park land that was forested, land use zoning on difficult terrain that made building prohibitive, a few tenures and areas of crown land within the municipal boundaries.

Table 5.12 If municipal land owned, any constraints as to the aspirations or intentions of the community for this land?

	City	District	Town	Village	Regional District	Total
No - #	19	25	4	19	9	76
No - %	65.5%	67.6%	80.0%	86.4%	69.2%	71.7%
Yes - #	10	12	1	3	4	30
Yes - %	34.5%	32.4%	20.2%	13.6%	30.8%	28.3%

106 valid cases, 3 missing cases

Table 5.12 indicates that over 70% of the communities indicated that there were no perceived

constraints as to the aspirations of intentions of the community with respect to the forested land. This is an important finding, as it suggests that there might be municipal land that could be combined with Crown land to create community forests.

A Chi-Square test indicated that there were no significant differences between the communities with respect to the constraints situation on the forested land ($\chi^2=3.40$, $df = 4$, $P\text{-value} = .49$).

Challenges or obstacles cited included small land base available, land being used for parks, access/operability and the land being targeted for future urban expansion.

Table 5.13 Communities' need for direct involvement in forestry

	City	District	Town	Village	Regional District	Total
Average	4.7	4.9	4.5	5.4	5.8	5.07
Minimum	1	1	3	1	3	1
Maximum	7	7	7	7	7	7
Median	5.3	5	4	7	6	6
Mode	7	7	4	7	7	7
Standard Deviation	2.2	2	1.7	2.2	1.4	2.01

103 valid cases, 9 missing cases

Table 5.13 indicates the communities' need for direct involvement in forestry, with an average of 5.07 for all of the communities. The highest scores are for Regional Districts (5.8) and Villages (5.4). The results for all communities are skewed to the low side of the scale, with modes of 7 for every community except towns, and medians that range from 4 through 7.

A Chi-Square test indicated that there were no significant differences between the communities in the levels of need for involvement in forest management ($\chi^2=28.37$, $df = 28$, $P\text{-value} = .44$).

This was supported by an analysis of variance to compare means across communities, which indicated no statistically significant difference ($F\text{ stat} = 1.00$, $P\text{-value} .41$).

This was unanticipated as there was an assumption that the more rural communities (largely towns, villages, districts, regional districts) would have had a greater need for involvement given the importance of forestry in the rural economies of many communities.

Table 5.14 Reasons for no need for direct community involvement in forest management

Community comfortable with current forestry management	37.8%
Community does not have resources or expertise to engage in this	59.5%
Community not interested in direct involvement in forest management	13.5%
Other	45.9%

75 missing cases, 37 valid cases

Table 5.14 indicates the reasons cited by those communities that did not feel a need for direct involvement in forest management. The dominant explanation at almost 60% was a perceived lack of resources and expertise. Nearly 40% of the respondents indicated that they were comfortable with current forestry management. The category 'other' scored almost 46% with most of the answers indicating that there was inadequate capacity and resources or limited or no land believed available.

Table 5.15 Details on need for direct community involvement

Community not comfortable with current forestry management	26.0%
Community has resources, and wishes to engage in direct involvement	24.7%
Community has no resources but wishes to engage directly	40.3%
Other	62.3%

35 missing cases, 77 valid cases

Table 5.15 provides details of the need for communities to become directly involved in forest management. Approximately a quarter indicated their lack of comfort with current forestry management.

The category 'other' totalled 62.3% and included a large number of concerns about timber access, employment and economic stability for the community, and some communities felt that the forests should fall under total or more community control. There was also significant concern regarding recreation, aesthetic/visual quality and watershed concerns that were not felt to be adequately addressed - which in part reflects a lack of comfort with current forest management.

Table 5.16 Communities' preference for direct involvement in management of forest land surrounding or within an hour's drive of the community

	City	District	Town	Village	Regional District	Total
Average	4.4	4.8	4.6	5.3	5.8	4.94
Minimum	1	1	2	1	3	1
Maximum	7	7	7	7	7	7
Median	5	5	4	6	6	5
Mode	5	7	4	7	6	7
Standard Deviation	2.1	1.9	2	2.1	1.5	1.96

95 valid cases, 17 missing cases

Table 5.16 addresses the communities' preference for direct involvement in management of forest land surrounding or within an hour's drive of their community. 'Need' indicates that something should be addressed. 'Preference' indicates that, given a choice and the resources, communities would chose to engage in more direct involvement in forestry management.

The average score of 4.94 for direct involvement is slightly lower than the previous score of 5.1 for community need for direct involvement. Every community need and preference average score are within .1 of each other, with the exception of cities, which had a need score of 4.7, but a preference score of 4.4, reflecting a .3 decrease.

A Chi-Square test indicated that there were no significant differences between the communities

in the levels of preference for direct involvement in forest management ($\chi^2=25.00$, $df = 24$, $P\text{-value} = .41$).

This was supported by an analysis of variance to compare means across communities, which indicated no statistically significant difference ($F \text{ stat} = 1.37$, $P\text{-value} .25$).

This was unanticipated as before the survey there was an assumption that the more rural communities (largely towns, villages, districts, regional districts) would have had a greater preference for involvement given the importance of forestry in the rural economies of many communities.

Table 5.17 Details on no preference for direct community involvement

Community comfortable with current forest management	34.2%
Community does not have the resources to engage in direct involvement.	47.4%
Community would prefer not to have direct involvement	5.3%
Other	42.1%

74 missing cases, 38 valid cases

Table 5.17 lists details on why some communities have no preference for direct involvement in forest management. Lack of resources at 47.4% is the highest response. It is significant to note that lack of resources was the highest response in the question on why there had been no direct involvement (53.1%) as well why there was no need to have direct involvement (59.5%). These results all clearly indicate that the lack of financial and staff resources is the dominant reason why communities are not more directly involved with forest management.

The category 'other' scored 42.1% and there were a wide variety of answers that had no dominant themes or trends.

Table 5.18 Details on preference for direct involvement in management of forest land

Community would like to have direct participation in forestry planning	75.3%
Community would like to have participation in forest operations decisions	53.2%
Community would prefer to have direct involvement in forest management	50.6%
Other	40.3%

35 missing cases, 77 valid cases

Table 5.18 addresses the details on preference for direct involvement in forestry management with forestry planning desired by three-quarters of the respondents. Both participation in forest operations and in forest management (which encompasses all aspects of forestry) were both desired by approximately half of the respondent communities.

The category 'other' received a score of 40.3% and this reflected a wide variety of reasons with the only small trends being watershed management, visual/aesthetic concerns and compatible land uses to the community.

Table 5.19 Municipal government involvement in policy initiatives in researching or establishing community forests

	Frequency	Percentage
Not involved in community forest policy initiative	61	55.0%
Involved in community forest policy initiative	50	45.0%
	111	100.0%

1 missing case, 111 valid cases

Table 5.19 indicates that 45% of the respondent communities were involved in policy initiatives to research or establish community forests. Policy initiatives included: establishing partnerships with industry and First Nations; pursuing TFLs, FLs, Woodlots and community forests; and undertaking research and feasibility studies.

Those municipal governments that were not involved in any initiatives cite lack of resources as their main reason with lack of available land as their second most common explanation.

Table 5.20 Non Governmental Organizations involved with community forest initiatives

	Frequency	Percentage
Not involved in community forest policy initiative	72	67.3%
Involved in community forest policy initiative	35	32.7%
	107	100.0%

5 missing cases, 107 valid cases

Table 5.20 indicates the degree of Non Governmental Organization involvement with community forestry initiatives, with one-third of the respondents indicating that an NGO(s) was involved with this in their community.

This involvement has primarily involved education and awareness, partnership building, involvement in forest planning exercises and applications for forest tenures. The reasons behind the initiatives include a desire for more local control and decision making, economic development and employment generation, training, education and research.

Those communities with no NGO initiatives cited lack of resources as their main reason with lack of available land as their second most common explanation - an identical situation to the municipal governments with no initiatives.

Personal Interviews and Stratification Of Mail-out Survey Sample

There is no hard and fast sociological method or statistical rule of thumb to stratify the population of UBCM member communities who received the mail-out survey. After consultation with the UBC

School of Sociology⁹² a small matrix or taxonomy was devised with sampling based on the following four parameters:

- i. Presence or absence of timber mill in community
- ii. Strong or low forest dependence for community
- iii. Population above or below 50,000 within community
- iv. Coastal or Interior location for community

This scheme provides a good cross section - and the samples included communities from each of the six provincial forest regions. Personal interviews were conducted in sixteen communities whose names are kept confidential - the forest regions the communities are located in are indicated in brackets. Each of these communities had responded to the mail-out survey.

**Table 5.21 Mail-out survey respondent communities selected for personal interviews.
Forest region of community location indicated in table.**

	Population 50,000+	Population <50,000	Coastal	Interior
Mill in Community	Prince George	Vancouver	Prince Rupert	Nelson
No Mill in Community	Vancouver	Nelson	Vancouver	Prince George
Strong Forest Dependence	Kamloops	Cariboo	Vancouver	Cariboo
Low Forest Dependence	Kamloops	Prince Rupert	Vancouver	Nelson

The representatives (who completed the mail-out survey) from these communities were given personal structured interviews. The questions for the personal interviews were qualitative and open-ended in nature, eliciting richer information than was available from the close-ended mail-out survey.⁹³

⁹²Guppy 1997

⁹³Cohen 1994

Examples of open, qualitative questions are: "Would you consider establishing a community forest an effective method to address some of your community concerns?"; or "Do you believe that there are currently enough community residents with the appropriate levels of forestry education and/or experience to act as community forest board members in overseeing the management of a community forest?"

Some of the interview questions in the second phase were designed for statistical evaluation, in order to investigate the relationship between mail-out survey recipients and interviews. This was accomplished by embedding modified quantitative questions from the first survey phase into the second phase to check for consistency and trends.

An overview of the responses to the personal interviews is given below for each of the fourteen questions. Complete data from the personal interviews is provided in Appendix D.

Question One: What was your level of awareness of the concept of community forestry before you received the mail-out survey? (7 = high level, 1 = none).

This was the first of the five quantitative questions that were embedded in the personal interview for statistical evaluation to determine the relationship between mail-out survey recipients and interviews.

A statistical assessment of the degree of agreement (after adjusting for chance agreement) between the survey and personal interview results was conducted using kappa statistics. Kappa scores in the range of 0.0 - 0.39 indicate weak agreement, scores of 0.4 - 0.7 indicate strong agreement, and scores from 0.71 - 1.00 indicate a very strong degree of agreement between the two ratings.

The Kappa score for the degree of strict (exact) agreement in the level of awareness between survey and personal interview scores was 0.22, indicating poor agreement. This was not unexpected, given the wide range of responses possible (scale of seven) and the limited number of subject survey respondents given personal interviews - and the resulting large number of empty cells in a comparison table of 49 (7x7) possible cells.

There is a weighted Kappa calculation which factors in the relative weights of the differences

between the two results (survey and interview). This is a complicated statistical technique and there is a more pragmatic statistical approach to address this situation.⁹⁴

Intuitively, with a range of seven, there is a similarity between scores adjacent to each other on the scale. Thus, a score of five is similar to a score of four or six, as the scale is big enough to provide a greater choice to the respondent than as is the case with a survey with a range of one to three or one to five. Given this, then if all the scores that fall within plus or minus one of the personal interview results are tabulated, a very different picture emerges.

Figure 5.2 Comparison of awareness responses between survey and interview to determine consistency

Interview Survey	1	2	3	4	5	6	7
1	1						
2	2						
3							
4		1					
5		1			1		
6		1			3		1
7	1					1	2

The shaded diagonal in Figure 5.2 includes all those responses that fall within the plus or minus one range. Responses within the shaded area indicate consistent responses. A consistency score of 73% was achieved with 11 of the 15 respondents providing similar survey and interview responses - indicating a strong consistency between survey and interviews with respect to the community levels of awareness. This similarity suggests there was a consistency in how the respondent addressed both the mail-out survey

⁹⁴Berkowitz 1998

and the personal interview and that the qualitative questions in the personal interview can be used in conjunction with the quantitative questions of the mail-out survey.

Question Two: What is your definition/explanation of a community? Geographical? Residents of an area? Similar interests?

Three themes were found throughout most of the community supplied definitions: people; geographic area; and common employment or activities. The people (community residents) live within a geographic area, with the area defined by physical geography, political boundaries, employment and economic activities (forestry, mining, fishing, agriculture, etc.) or recreation and culture (hunting, fishing, food gathering, recreation, etc. The economics of a community in conjunction with its geography influences the types of recreation, social, and cultural activities.

These results support the theoretical definitions and explanations of community and culture as discussed in Chapter Three in which the importance of the boundary and the 'cultural glue' were described.

Question Three: What is your definition/explanation of forestry?

The definitions generally incorporate the economic importance of forestry, with an explicit acknowledgement of the job creation and business aspects of it. A secondary importance is generally accorded to the environmental and sustainable aspects of forestry.

Question Four: What is your definition/explanation of community forestry?

Most of the communities see community forestry having community participation and decision-making as an essential component, with the decision-making focussing on local employment and local concerns/needs in the forest base close to the community. This result supports the role of community forestry as a local control and local decision-making exercise which acts as an integrated planning tool.

The recognition of both the economic and environmental aspects of forestry indicate that there are potential trade-offs between the two considerations.

The communities see community forestry as a working forest, and not as a park or area set aside in which forest management for commercial values are prohibited. This suggests that community forestry, as envisioned by most communities, would not result in areas being removed from the timber base of the province - a concern of the government and forest industry.

Many of the definitions also make reference to a particular area - something that a Forest Licence (that is volume based tenure) does not as effectively address as an area based tenure, such as a Tree Farm Licence. This also suggests the importance of 'place' for a community forest which mirrors the importance of 'place' for a community.

Question Five: What was your level of understanding of community forestry before you received the mail-out survey? Please indicate the awareness level (7 = high level, 1 = none).

The Kappa score for the degree of strict (exact) agreement in the level of understanding between survey and personal interview scores was 0.20, indicating poor agreement. Once again, this was not unexpected, given the wide range of responses possible (scale of seven) and the limited number of subject personal interviews.

Figure 5.3 Comparison of understanding responses between survey and interview to determine consistency

Interview	1	2	3	4	5	6	7
Survey							
1	2						
2							1
3			1		1		
4							
5			3		1		
6				1	1	1	1
7	1				1		

Employing the ‘plus or minus one strictness approach’ in Figure 5.3, seven of the fifteen scores fall in the shaded diagonal, indicating a moderate consistency score of 47%.

**Question Six: What are the main concerns and considerations facing your community at this time?
1. Sociological, 2. Economic, 3. Environmental, 4. Governance?**

Employment creation and maintenance, and economic stability were raised by over half of the communities, with particular concerns about the forest sector, the impacts of planning and the implementation of the Forest Practices Code. Six communities raised concerns over the provincial government downloading of responsibilities as posing a challenge to the resources of the communities, compounded by the reduction in transfer payments. Seven communities raised environmental concerns, some related to forestry, others to urban growth.

Question Seven: What has been your municipal government's level of experience with direct involvement in forest management in the forest land surrounding or within an hour's drive of your community (7 = high level, 1 = none)?

The Kappa score for the degree of strict (exact) agreement in the level of experience between the survey and personal interview scores was 0.13, indicating poor agreement. Once again, this was not unexpected, given the wide range of responses possible (scale of seven) and the limited number of subject survey respondents given personal interviews.

Figure 5.4 Comparison of level of experience responses between survey and interview to determine consistency

Interview	1	2	3	4	5	6	7
Survey							
1							
2							
3	1			1			
4							
5				3	1		1
6	3				1	1	
7	1						1

Employing the 'plus or minus one strictness approach' in Figure 5.4, eight of the fourteen scores fall within the shaded diagonal, indicating a moderate consistency score of 57%.

Question Eight: Would you consider establishing a community forest an effective method to address some of your community concerns?

Thirteen of the sixteen communities (81%) responded 'yes' to the question. One community indicated 'no', as they felt that there was a good relationship with the forest industry and adequate local

involvement in the local tenure management. Another community said 'no', as they were not aware of any available land for a community forest. The last community felt establishing a community forest could be an effective method of addressing some community concerns but this would depend on local forest sector impacts.

Question Nine: Is your municipality currently capable of pursuing and operating a community forest?

Thirteen of the sixteen communities (81%) indicated 'yes', with many of them indicating that they would require the services of forestry staff resources or hired consultants. One community said that it was not applicable as there was no available land - this resulted from the community's location in a densely inhabited area and bordered by other communities. Another community wanted to enter into a partnership but not run the forest as this would put them into conflict with industry. The third community said 'no' but indicated that they are currently researching community forestry.

Question Ten: What are the advantages your community have in establishing a community forest?

There were a wide variety of responses to the question, with six communities focussing on proximity to forests. Others focussed on location or infra-structural advantages. Seven communities mentioned either council or municipal staff experience with forestry and forest planning.

Question Eleven: What are the disadvantages/challenges your community faces in establishing a community forest?

Six communities cited lack of human resources or experience as a disadvantage. Five communities cited land concerns, either the lack of it or concern over distances between the community and the potential land area.

Question Twelve: Do you believe that there are currently enough community residents with the appropriate levels of forestry education and/or experience to act as community forest board members in overseeing the management of a community forest?

Every community except one (94%) indicated 'yes', there were currently enough community residents with appropriate levels of forestry experience and education. One community was uncertain of this.

Question Thirteen: How important would you estimate your community's need for direct involvement in forestry to be? (7 = high level, 1 = none).

The Kappa score for the degree of strict (exact) agreement in the level of need for a community forest was 0.041, indicating poor agreement. Again - this was not unexpected.

Figure 5.5 Comparison of level of need responses between survey and interview to determine consistency

Interview	1	2	3	4	5	6	7
Survey							
1							
2							
3							
4							
5			1			1	1
6			1				2
7						2	1

Employing the 'plus or minus one strictness approach' in Figure 5.5, seven of the ten scores fall within the shaded diagonal, indicating a strong consistency score of 70%.

Question Fourteen: What is your community's level of preference for direct involvement in the forest land surrounding or within an hour's drive of your community? (7 = high level, 1 = none).

The Kappa score for the degree of strict (exact) agreement in the level of preference for direct involvement between survey and personal interview scores was 0.077, indicating poor agreement.

Figure 5.6 Comparison of level of preference responses between survey and interview to determine consistency

Interview	1	2	3	4	5	6	7
Survey							
1		1					
2							
3					1		
4			1				
5							
6			1			1	4
7				1			2

Employing the 'plus or minus one strictness approach' in Figure 5.6, nine of the twelve scores fall within the shaded diagonal, indicating a high consistency score of 75%.

Focus Groups

Focus groups provide an opportunity to obtain information from a group which creates a different dynamic than is available from a one-on-one interview. It provides a research vehicle to study ideas in a group context (Manning et al. 1988).

Focus groups provide access to information that would otherwise be difficult to obtain through individual interviews:

The hallmark of focus groups is the explicit use of the group interaction to produce data and insights that would be less accessible without the interaction found in a group (Morgan 1988, 12).

Focus groups can be used throughout a research program and are particularly useful "for exploratory research where rather little is known about the phenomenon of interest" (Stewart and Shamdasani 1990, 15).

They have also been successfully employed as an additional research tool following the analysis of a large-scale, quantitative survey, such as the provincial mail-out survey that was conducted for this research.

Three series of focus groups were held in communities across the province. The focus groups only involved communities that had responded to the mail-out survey. Each series addressed community forests from a different perspective by targeting:

- i. Communities without community forests.
- ii. Communities which are actively pursuing a community forest.
- iii. Communities with existing community forests.

For the focus groups addressing communities without community forests, a stratified sample of communities who responded to the mail-out survey was devised using the parameters of coastal/interior location and high/low forest dependency as indicated in Table 5.22 on the following page. Three of the four possible focus groups were held, the fourth being cancelled as there was a growing redundancy in the information being obtained. The community names are once again kept confidential, with the Forest Regions in which they are located shown in brackets.

**Table 5.22 Communities without community forests
Forest Regions of survey communities indicated in cells.**

	Strong Dependency	Low Dependency
Coastal	Prince Rupert	Focus Group not held.
Interior	Nelson	Nelson

A number of communities are actively pursuing community forests, and two such communities were interviewed. A simple stratification of coastal and interior location, as indicated in Table 5.23, was used to see if there were any different concerns. One community was in the Prince George Forest Region, the other in the Vancouver Forest Region.

**Table 5.23 Communities actively pursuing community forests.
Forest Regions of survey communities indicated in cells.**

	Coastal	Interior
Forest Region that community is located in.	Vancouver	Prince George

There was little choice with respect to those communities with established community forests. Three community forests have been in existence for more than three years, which pre-dates the recent provincial government initiative of issuing a limited number of Forest Licences to communities. The three communities with established community forests (as indicated in Chapter Four) are: Mission, North Cowichan, and Revelstoke. All three of these communities were surveyed.

Focus Group Design

The size of the focus group is an important design consideration. Too small a number can lead

to an inadequate group dynamic, and too large a group can lead to difficulty in management for the moderator. Most focus groups are composed of 6 - 10 (Morgan 1988) or 6 - 12 people (Stewart and Shamdasani 1990). The focus group sizes for this research varied from 3-8.

The duration of the focus group is an important consideration; the session should not be too long since people tire and the subject matter can be exhausted. The ideal duration of a focus group session is no longer than 1.5 - 2 hours (Stewart and Shamdasani 1990). The focus group sessions that were held lasted between 1 - 1.5 hours.

The location of focus groups is important to maximize their effectiveness. The closer the location to the participants' homes, the more likely they will participate (Stewart and Shamdasani 1990). The focus group session has to be held in a setting that is comfortable for the participants, one that has no particular negative or positive values attached to it. For this reason, the focus groups were held in Municipal Halls which were considered neutral⁹⁵ and convenient for all participants to get to.

Focus Group Organization

A date and time for the focus group was first arranged with municipal representatives, as they were considered the key participants and critical for the focus group to be successful. Once the meeting time was agreed to, additional participants were recruited.

In terms of focus group recruitment, the target size was for a minimum of 6 people and a maximum of 10. There are typically some 'no-shows' and the strategy to address this is to over-recruit by 20% (Morgan 1988). A decision was made not to turn away any 'extra' people from the focus groups - as is practised in marketing focus groups - (Stewart and Shamdasani 1990), due to the sensitive nature of the research and the importance of not alienating the volunteer community focus group attendees. To

⁹⁵Guppy 1997

this end, an attempt was made to invite up to 10 people, which provided an accounting for 'no-shows' but also ensured that if everyone attended the group would still be a manageable size.

There was no means to ensure that there was always statistical representation in the focus groups, as you cannot either guarantee a random representation or force particular people to attend a focus group. After discussions with the UBC School of Anthropology and Sociology,⁹⁶ the research strategy employed for this project was to be purposeful in selection rather than trying to be random. Participants were purposefully recruited who represented a number of different job sectors and community interests. It was felt that this would lead to a number of perspectives and concerns being addressed within the focus groups.

Participants were recruited from the following groups (with all being community or regional residents):

1. Municipal Government - ideally the person who completed the mail-out survey or a designate.
2. Town administrator or Mayor or designate.
3. Ministry of Forests - District Manager or a designate.
4. Forest Industry - large scale, eg. tenure holder.
5. Forest Industry - small scale, eg. small business, independent.
6. Industry that derives a lot of business from forestry, eg. equipment supplier.
7. Non Governmental Organization, eg. environmental group.
8. Tourism Sector - government representative or operator.
9. First Nations representative.
10. Chamber of Commerce representative.

The focus groups were all carried out in a similar fashion to ensure consistency in the research.

The following stages occurred in every focus group:

1. Welcome/introductions. The researcher and the participants introduced themselves.
2. Purpose of the focus group. The intent of the focus group and how the information was to be used was discussed. Confidentiality was addressed, with the participants assured that any information was not going to be attributed to any one individual or community.
3. Focus group format. The methodology and procedures of the focus group were reviewed.
4. Focus group questions. The focus group questions were addressed.
5. Feedback was requested from the focus group participants about their impressions, comments,

⁹⁶Guppy 1997

etc. on the focus group process.

There are two basic approaches to analysing focus group data: 1) a strictly qualitative or ethnographic summary or b) systematic coding via content analysis (Morgan 1988). The first method employs direct quotations from the group discussions, while the second method creates numerical descriptions of the data gathered. The systematic coding requires not only devising a code system, but translating the data through the code into numerical values in an accurate and consistent fashion. This requires specialized training and software and can be a time-consuming process. This project employed the qualitative or ethnographic approach for time, resource and expense reasons.

Focus Group Management Strategies

It is important for the moderator (researcher) to not influence the process but to direct it and keep it on track, to direct the discussion without "putting words into panellists' mouths" (Morgan 1988). The moderator has to strike a kind of balance between understanding, empathy and disciplined detachment (Bellenger et al 1976). The focus group can be used to keep the process on track through the moderator using the following approaches:

1. Emphasizing that the researcher wants as many different points of view as possible.
2. Getting participants to use questions to direct the flow of interaction.
3. Emphasizing the importance of hearing about their experiences - not everyone is willing to state or defend an opinion, but most people are willing to tell their stories.
4. Emphasizing that all experiences are equally important to the researcher (Morgan 1988).

Merton et al (1956) argued for four broad criteria for the effective focus group interview:

1. It should cover a maximum range of relevant topics.
2. It should provide data that is as specific as possible.
3. It should foster interaction that explores the participants' feelings in some depth.
4. It should take into account the personal context that participants use in generating their responses to the topic.

Successful groups discuss a range of topics that not only covers the issues that researchers already know to be important, but also introduce a set of issues that the researchers had not anticipated. This

introduction of new and unanticipated sets of issues is the real strength of focus groups as a research tool.

To successfully encourage the focus group dynamic, it is essential to chart out the general direction of the focus group data search. An important tool here is to use a guide to organize the discussion topics.

A good guide creates a natural progression across topics. A general strategy is to start off with broad questions and gradually focus in on more defined questions and concerns. This is referred to as the 'funnel approach' and is:

most appropriate for topics that are considered fairly sensitive, and where the interviewees are quite knowledgeable but need more time and freedom to express themselves in the beginning of the interview before they can be probed effectively (Stewart and Shamdasani 1990, 76).

Community economic development and resource control is a sensitive topic, due to the employment and economic implications and the stakeholder positions that many community residents have. The funnel technique not only encouraged people to address the general aspects of forestry and community forestry, but as the focus group progressed, it encouraged them to become more specific in their input.

A summary of the responses from the focus groups is provided here with the complete data provided in Appendix E.

Focus Group Series 1: Communities Without Community Forests

**Question One: What are the main concerns and considerations facing your community at this time?
1. Sociological, 2. Economic, 3. Environmental, 4. Governance**

A lot of uncertainty was expressed about the forest sector, including: Land Claims; reductions in AAC; tenure status and forest policy uncertainty. Forestry was seen as an important part of the economy and concern about fibre supply and mill survival was expressed. High unemployment for First Nations was perceived to be a challenge. There were difficulties expressed in job creation for natives and

non-natives.

Question Two: Do you see forestry as contributing to the creation or solving of these concerns and considerations?

Forestry was seen to do both - it can create jobs, economic development, and assist in municipal initiatives. There were concerns expressed regarding forestry legislation, especially the Forest Practices Code and its impacts. Stumpage was seen as hard to understand and to determine if it is fair. There were questions as to why there is only the Vancouver Log Market and not more regional log markets.

Question Three: What is your definition/explanation of a community? Geographical? Residents of an area? Similar interests? Legal Definition - i.e. voting list?

Community was seen to be defined by the nature and extent of the employment in the area and is characterized by the geographic and infra-structural features and the services or amenities provided. Community was also defined by the people and their work and their conflicting interests in a limited space. Communities are seen to be characterized by both stability and change, with respect to the economy, interest, racial origin and jobs.

Question Four: What is your definition/explanation of forestry?

Forestry was seen to encompass a number of activities, including the management, growth, harvesting, processing and use of timber and non-timber resources. The forestry management approach and tree species used appears to be constantly evolving and in a state of change. Forestry is seen as a long term business. There was the perception that mistakes have been made in the past that we are now paying for. Forestry is believed to be a major industry, employing many people and having very diverse aspects to the industry.

Question Five: What is your definition/explanation of community forestry?

There was a wide range of aspects to community forestry expressed. Some communities acknowledged the concept, but questioned if it existed. This was more along pure philosophical lines of questioning rather than practicality.

Other communities cited Mission and the Slocan Model and the work of Herb Hammond (a Registered Professional Forester consultant operating out of the Slocan Valley, BC).

One community described it as the management and ownership of tenure of treed forest areas around the community and harvested for the benefit of the community. It was felt that first it was necessary to define what is the forestry to be practised and then what is the community.

Questions Six: Would you consider establishing a community forest an effective method to address some of your community concerns?

There was a lot of uncertainty raised with how the community forest would be structured and operated, with uncertainty about the definition creating caution for councils and fear for some of the community residents. There was some concern about working forests in community forests becoming de facto parks.

There was uncertainty as to whether community forests would be subject to MoF regulation and whether the contractor clause and forest legislation would apply. There was also uncertainty and doubt about whether the government would award community forests as other initiatives to obtain forest land had been unsuccessful.

This uncertainty reflected concern over existing legislation, regulation and government policy rather than the efficacy of a community forest per se.

Question Seven: Is your municipality currently capable of pursuing and operating a community forest?

There was community uncertainty about what a community forest would involve and the need

for the community to establish this. There was concern expressed about municipal finances and the cost of establishment and maintenance of the community forest. There was also some concern about the potential for conflict with industry and job displacement.

There was a perceived need for tenure reform and a lack of trust with forest companies and government based on the coast making decisions in distant regions. Local control and decision-making was seen to be more effective. This lack of trust and the uncertainty over what a community forest might 'look like' led to a high degree of uncertainty with regard to the question of municipal capability.

Question Eight: What are the advantages/disadvantages your community has in establishing a community forest?

This was very much determined by both the location of the community and the nature of the forest land base. Communities cited infrastructure and transportation as important determining factors. The role of industry was cited, with one community stating that this was essential, another that this was a hurdle, and another that there were too few forest companies/operators to deal with.

Concerns were raised regarding finances and the need to gear up for it and convince some people within and without the community of the extent of the financial requirements.

Question Nine: What would be some of your community objectives if a community forest were established?

Some of the community objectives voiced included: developing value added businesses; increasing employment; education; and revenue generation for community use.

A primary objective was to reduce the volume of timber leaving the communities as either raw logs or cants. This was perceived to be an economic and employment drain on the local community.

Question Ten: Do you believe that there are currently enough community residents with the appropriate levels of forestry education and/or experience to act as community forest board members in overseeing the management of a community forest?

Virtually all of the communities indicated a strong 'yes' with lots of forest talent being found within the community residents. One community pointed out that the best board members would not necessarily have forestry industry experience, but more experience in finance and management.

Question Eleven: How important would you estimate your community's need for direct involvement in forestry to be? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

The communities gave responses between 3.7 - 5, with four being the overall average. If current negative trends in legislative/provincial rules continued, one community said that their value of four would increase - a reflection of their lack of satisfaction with how forestry management and control was developing.

Question Twelve: What is your community's level of preference for direct involvement in the forest land surrounding or within an hour's drive of your community? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

One community that scored 4 indicated that their level of preference was based on involvement by input as they had participated in forestry planning (open houses, Five Year Development Plans) but did not want to tell the companies how to do their job. The other two communities recorded scores of 5 and 6.5. The community with a score of 6.5 indicated that earlier when the forest sector was healthier the score would have been lower.

Question Thirteen: Timber Availability:

- 1. Opinion regarding use of tenures when they expired.**
- 2. Opinion regarding use of SBFEP wood for Community Forest Tenures.**

Concern was expressed regarding where community forest wood would come from.

The SBFEP 5% take back was mentioned as a source as was the potential increase in AAC from timber sources not presently utilized.

SBFEP was acceptable to one community, as long as the municipality was in control. This community did mention their sensitivity to the potential fear of small operators and community politics in award decisions.

Focus Group Series 2: Communities Actively Pursuing a Community Forest

**Question One: What are the main concerns and considerations facing your community at this time?
1. Sociological, 2. Economic, 3. Environmental, 4. Governance.**

There were concerns raised about social problems such as boom and bust economies, economic stability, drug and alcohol abuse and family break up. Communities were feeling the impact of federal and provincial governance and the reduction in transfer payments.

With respect to the forest industry, there were concerns about deferrals in logging and the stability of large forest companies. There were also concerns about environmental quality and the long term stability and viability of communities.

Question Two: Do you see forestry as contributing to the creation or solving of these concerns and considerations?

Forestry was perceived to have contributed to contribute to both the creation and solving of these concerns and considerations.

Forestry was believed to have created some environmental problems such as air quality. The liquidation of old growth was perceived to have created a transition challenge, and strategic planning and addressing the transition and the growing pains related to second growth was seen to be critical.

It was believed that forestry could solve these problems by creating jobs and investment, and making financial donations to the community. Forestry companies were believed to be conducting better

forestry operations now than earlier. Forestry companies were also seen to have become more a community partner, with more donations and work with the community.

Question Three What is your definition/explanation of a community? Geographical? Residents of an area? Similar interests? Legal Definition - i.e. voting list?

A Community was seen to be about the people and the place. Communities were not believed to be simply legally defined entities; you had to consider history and tradition in a community, with the group of people with similar interests leading to a sense of community. It was observed these interests did not necessarily involve a common goal.

Question Four: What is your definition/explanation of forestry?

The communities felt that it involved the management of forest resources. Some people thought that this involved the liquidation of old growth and ecological impacts on ecosystems which were poorly understood. Others thought that this was a more considered process, and that all values were addressed, including: timber, water, wildlife, spiritual and aesthetic needs. The coastal community found this a hotly debatable topic, while the interior community did not.

Question Five: What is your definition/explanation of community forestry?

The communities defined community forestry as an area of forest land managed by the community with the benefits or losses accruing to the community. They felt that the community controlled the forest - it is community-based and not industry or the provincial government that makes the decisions.

Questions Six: Would you consider establishing a community forest an effective method to address some of your community concerns?

The communities felt 'yes' though there was some risk and it may not be the only approach. It was believed that the community forest could address local mill needs, forest practices and local and global concerns. The community forest was perceived to be an effective method to create local revenues, employment and stability.

Question Seven: Is your municipality currently capable of pursuing and operating a community forest?

Coastal community said that time would tell but they had the ability to hire expertise and assistance. The interior community were confident of their ability and already had partnerships in mind.

Question Eight: What are the advantages/disadvantages your community has in establishing a community forest?

This was varied depending on the location, economic situation and forest resources of the community.

The coastal community cited strengths in community, forest type and size, local knowledge and the current desperate situation as an inducement to do something. Weaknesses or concerns were raised for isolation, costs and difficult time frames.

The interior community cited strengths in local forest industry, community members, ability to get people to work together. Weaknesses were cited for available forest land close to city, other challenges that took time and resources, financial costs.

Question Nine: What would be some of your community objectives if a community forest were established?

The communities cited employment and the greater community stability and ability to survive external forces. The community forest was seen as a potential generator of local revenue. It was felt that

the community forest would contribute to improved forest management and stewardship with a resultant healthy environment.

Question Ten: Do you believe that there are currently enough community residents with the appropriate levels of forestry education and/or experience to act as community forest board members in overseeing the management of a community forest?

The communities responded 'yes'.

Question Eleven: How important would you estimate your community's need for direct involvement in forestry to be? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

Both communities ranked this high on the scale. The coastal community ranked it an '8' - off the high end of the scale, while the interior community ranked it 5.5.

Question Twelve: What is your community's level of preference for direct involvement in the forest land surrounding or within an hour's drive of your community? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

The communities cited forest status, quality and distribution as deciding factors in this question.

The coastal community ranked this high with a score of '7', and indicated that land further away was more important than land close up. This is explained by the better forest land being further away, with more potential in this forest land than that close to the community(s).

The interior community ranked it '1' if far away, and '6' if nearby the community - indicating a strong preference for involvement in the surrounding forest land.

Question Thirteen: Timber Availability:

- 1. Opinion regarding use of tenures when they expired.**
- 2. Opinion regarding use of SBFEP wood for Community Forest Tenures.**

The coastal community indicated that SBFEP wood could be used, as there was currently

surrogate bidding with the wood going to outsiders anyway. The community could control the SBFEP wood and could ensure no surrogate bidding took place.

The interior community expected an increase in the Annual Allowable Cut under the Timber Supply Review for the region, and saw a kind of partnership with industry in some areas, and filling the small forest land niches that industry misses in others.

Focus Group Series 3: Communities with Existing Community Forests

Question One: What is your definition/explanation of a community? Geographical? Residents of an area? Similar interests? Legal Definition - i.e. voting list?

The communities stated that geography was important as a determinant of community, with other factors including the provision of basic amenities, the economics of the area, the culture, society, and where you live. Community was seen as a group of people who shared common values.

Question Two: What are the main concerns and considerations facing your community at this time? 1. Sociological, 2. Economic, 3. Environmental, 4. Governance.

Growth and the challenges to manage it and provide services were important to all three communities. Industry was seen to be a main concern - either trying to promote it or maintain it for employment and the tax base. There was also the challenge of economic stability and control with the rapid growth of population and challenges of people leaving the lower mainland (big cities) and bringing with them new values that may not be similar to those under which the community was originally established.

Question Three: What is your definition/explanation of forestry?

Forestry was seen to involve timber development and management, but also encompassing social and cultural issues. Forestry was a major economic factor, a large employer and a major income and tax

generator.

Question Four: Do you see forestry as contributing to the creation or solving of these concerns and considerations?

Forestry was seen to both be a contributor to as well as a potential solution to the concerns and considerations - forestry is important to the local economy and employment. There was concern about the future of forestry, with AAC determinations, land planning processes, and value added opportunities not being capitalized on. There was uncertainty about future community values and how these fit with historical values.

Question Five: What is your definition/explanation of community forestry?

Community forestry permits community at the local level to look at the resource and decide what is best for them and how to achieve this themselves. The communities saw the forest as a resource for local goals. It was felt that if the community is not in control, they are not achieving their goals as others are doing that. The community forest could be used as a 'working green belt' and serve an important role in community and economic planning.

Questions Six: What have been the positive and negative outcomes of establishing a community forest?

The community forest creates: local opportunities; local jobs and economic stability. The surpluses and opportunities go to community and are not lost.

Question Seven: What are the advantages/disadvantages your community has in managing a community forest?

This depended on the location of the community and the geography and infrastructure. It was

felt that the control of the community forest was important, in that Fee Simple title gave more flexibility than operating under a TFL.

The important role of council was also cited, with one community mentioning their 'hands off' approach as long as no complaints and no financial losses were incurred. There was also mention of the role of local contractors and industry and how important it was for them to work together.

Question Eight: What, if any, are some of the limitations of the structure of the community forest?

All three communities felt that ideally the forest land base would be fee simple land as this would free the communities of the tenure limitations set out in legislation and regulation. The communities would like even more control over the resource base than is currently permitted. It was not felt that cut control was needed as this was designed with industry in mind and not the communities which would not leave an area.

It was stated that a larger size of community forests is needed but that there was a need to find a balance between the community goals and the size of the community forest needed to address them. There was mention of concern about the lower harvest levels not being as economical (staffing, resources, options) to manage as larger tenures and this made community forests more challenging to successfully manage.

Question Nine: How do you involve the community in your community forest - does this work?

The communities mentioned involvement through a number of ways, including: schools; user groups; industry; bylaws and restrictions; Chamber of Commerce; surpluses going back to the community in noticeable ways.

It was felt that the public were able to provide input through: open houses; meetings; community forester neighbours contacting them with concerns; and the concerned public contacting the local

politicians.

Question Ten: Is your community forest different from a forest that industry or an individual manages? If so - how?

Community forests were felt to be different with the job creation and re-investment of surpluses into the community. Another difference cited was the limitations of the Tree Farm Licence and how that legislation could force management decisions that might not address community needs - though there were best efforts attempts to address community concerns within the constraints of the TFL.

Question Eleven: What would an ideal community forest look like in terms of structure, operations and size?

All three communities emphasized the importance of Fee Simple Land, in which they made the forest management decisions to meet the community goals and not those of the region or provincial government.

It was felt that the size and structure of the community forest would depend on the community and its goals, every community is different and there is a need to keep as much flexibility as possible to permit a community to devise a community forest that meets their needs.

Question Twelve: Timber Availability:

- 1. Opinion regarding use of tenures when they expired?**
- 2. Opinion regarding use of SBFEP wood for Community Forest Tenures?**

There was more interest in taking over the SBFEP wood, as the SBFEP objectives were not necessarily being met, and if the municipalities controlled this volume, they could direct it to the local small operators.

There was concern about taking away tenure because of potential industry impacts and legal and compensation concerns.

It was felt that local government is a better clearing house for resource disputes as they are in the area in question and have a lot of power over the life style of residents.

CHAPTER SUMMARY

This chapter addressed the seventh thesis objective, which was to conduct a provincial survey of the members of the Union of BC Municipalities to determine their levels of awareness of, and interest in, community forestry.

The provincial mail-out survey achieved a 63% response rate, with 112 of the 179 UBCM communities participating. This strong response rate indicated both the importance of community forestry for many communities and the value of UBCM's research partnership.

An unexpected result of the survey was the discovery that there are no statistically significant differences between the five community types with regard to the quantitative questions. It was anticipated at the outset of the research that the more rural communities (typically towns, villages, districts and regional districts) would have higher results than the cities - which tend to be less rural and forestry dependent.

A strong level of awareness of community forestry (an average of 4.87 in a scale of 7 being high) has been demonstrated throughout the province, with many communities aware of the community forests located in Mission, North Cowichan and Revelstoke. The government was the most common source of this information, with almost half of the communities indicating that this was a source. Word of mouth and reports/studies represented two sources indicated by approximately 40% of the communities. Conferences were cited as a source by approximately one-third of the communities, with newspapers and journals serving as sources for approximately one-fifth of the communities. Neither radio nor television were major information sources.

The level of understanding was slightly lower, with a community average of 4.47 in a scale of

7, with 7 being high. This was anticipated, as awareness always precedes understanding. There is a significant desire for the communities (87.5% of respondents) to increase their awareness and understanding of community forestry. The communities indicated that employing a report/study (one of the cheapest delivery options) at 75.0% is much more preferable to the second choice of a conference at 48.0%. Government extension rates a 42.0% score, while journals receive 29.0%. Radio and television again do not play an important role.

The average communities' level of experience with direct forest management was 4.06 with two-thirds of the respondents indicating involvement in the MoF Forestry planning process and a third citing control or ownership of municipal or crown land. For those communities with no direct involvement experience, 53.0% cited lack of resources (staff or finances) and 40.8% cited lack of access to forest land or potential forest land as their primary obstacles.

51.1% of the municipalities indicated ownership over some forest land and 31.9% indicated a tenure over some crown land, with 71.7% of the respondents indicating that they did not see any constraints as to their aspirations or intentions for this land. This is somewhat misleading, as many communities cited small land areas, difficulty in access or operability, or the status of the land being in a park or a watershed as preventing them from engaging in forestry.

Community need for direct involvement in forestry scored an average of 5.07. Those communities with no need cited lack of resources or expertise (59.5%) as their primary reason followed by their comfort level with current forestry management (37.5%). Communities citing a need for direct involvement indicated lack of comfort with current forestry management (26.0%) and a score of 24.7% to engage in direct involvement despite lacking adequate resources.

Community preference for direct involvement in management of forest land scored an average of 4.94 with 75.3% indicating a desire for direct participation in forestry planning and approximately half indicating a preference for direct participation in both operations and forest management. Communities

with no preference for direct involvement in management cited lack of resources (47.4%) and comfort with current forest management (34.2%) as their main reasons.

45.0% of the communities indicated some municipal government involvement in policy initiatives in researching or establishing community forests and 32.7% indicated NGO initiatives. Those communities citing no initiatives for either municipal government or NGOs cited lack of resources and lack of available land as their principal explanations.

Sixteen personal interviews were given to a stratified sample of the mail-out respondents, There was a strong consistency between the mail-out quantitative responses and identical ones in the personal interviews, supporting the assumption that personal interviews (qualitative information) are an effective means to supplement mail-out surveys (quantitative information).

The personal interviews indicated that communities defined community with people, geography and activities as the three major themes. The themes were: people; geographic area; and common employment or activities. People live within a geographic area, with the area defined by such features as physical geography, political boundaries, employment, economic activities, recreation and culture. The economics of a community in conjunction with its geography influences the types of recreation, social, and cultural activities. This definition closely matches the theoretical treatment of community addressed in Chapter Three and suggests that both theory and survey information can be used in tenure design.

Forestry was recognized primarily for its economic importance and secondarily for its environmental impacts and sustainability. Community forestry was defined as the community participating in the decision making and management of a forest. The detail provided by the communities was also consistent with the theoretical descriptions provided in Chapter Four.

The community forest was seen to be a working (not park or set aside) forest. This is a significant finding, as it indicates that community forests will not reduce the timber base with forested

land being taken out of the AAC and 'set aside'. This fact should allay some government and industry concerns about the forest land base being further reduced.

There is the potential for community forests to take over the management existing but non-accessible industrial AAC land in sensitive peri-urban or environmental or recreational sites. Community forestry could thus assist in increasing or off-setting the decrease in AAC as a result of regional planning, implementation of the protected areas strategy and the introduction of the Forest Practices Code. This possibility warrants further research into the policy, forest management, socio-economic and environmental implications.

The personal interviews indicated that employment, economic stability, and provincial government down loading and transfer cuts were the significant challenges communities faced. Community forestry was considered by over 80% of those communities interviewed to be an effective way to address some of the community concerns, and a similar percentage indicated that they currently had the ability to manage a community forest. This strong interest and belief in community forestry as a management tool suggests that further research is needed to further clarify what community challenges and opportunities are faced and how best to address the community weaknesses and capitalize on the strengths.

Community advantages in managing a community forest primarily centred around the nearby forest base and the local residents' experience in the industry. Local understanding of the forestry, socio-economic and environmental trade-offs was mentioned. Disadvantages included land availability and resources in staff and finances. Further research into how to facilitate community forestry is warranted, as there are numerous approaches that could be tailored to specific types of communities or representative community situations.

The focus groups generally supplied less consistent information than the mail-out survey and personal interviews. This was not surprising given the lower number of focus groups and the different

types of communities addressed.

The focus groups provided similar information to the mail-out survey and personal interviews on the concerns and considerations of communities, namely jobs, economic stability and the concern over the provision of services. Forestry was seen to both contribute and solve the concerns and considerations, with the perceived decline in the health of the forest sector being cited as a cause of unemployment and economic instability.

The focus groups repeated the community definition themes of people, place (geography) and activities as defining aspects. Forestry was defined as a number of activities including management, operations and the use of timber and non-timber resources. The approach, species and standards were perceived to be constantly evolving.

Those communities without community forests were uncertain of how to define community forestry, as there was so much uncertainty about what was financially and legally possible and the lack of information regarding forest availability. Related to this was the uncertainty regarding the communities' capability to pursue and operate a community forest. This contrasts markedly with the 80% response that was obtained in the interviews and bears further research into the different outcomes. The researcher was left with the strong impression that much of this uncertainty was around the management and governance of the forest and that an extension program suggesting various models would quickly address this.

Those communities pursuing community forests had a stronger sense of what community forestry involved. Community forestry for these communities was an area of forest land managed by the community who realized any gains or losses from this land. The community controlled the forest management process, not industry and not the government.

Communities with existing community forests had a very strong sense of what community forestry involved. The communities at the local level looked at the resource and decided what was best

for the community to achieve their goals and needs. The forest was seen as a resource for local goals. The communities felt that if they were not in control of the forest, then they were not achieving their goals as others were doing that.

Those communities with existing community forests indicated that their forests had increased local economic stability (opportunities and jobs), objectives that were raised by those without or currently pursuing community forests. Furthermore, community forests had generated revenues that were reinvested by the communities into their forests and forest management reserve funds (for economic downturns), with surpluses being invested into the communities.

Every type of community felt that their residents were capable of sitting on community forest boards, and potential partnerships or relationships were mentioned with industry, local educational institutions, and the Ministry of Forests.

The focus groups strongly indicated the importance of area-based tenure for community forestry. All three communities with existing community forests stressed the ideal of having fee simple land not subject to government regulation and legislation. There was a strongly held belief that the communities are capable of making the forestry trade-offs, and it is the community residents who are best able to discuss and decide on important forest management issues.

There was some concern about making land available for community forests through tenure reductions, as this was believed to potentially harm the forest industry and created investment uncertainty. Communities did not exclude this as an approach, but were interested to determine if there were other strategies. Most communities were interested in the idea of taking over the SBFEP volume and managing it, as they would prevent surrogate bidding and ensure that the wood would generate the most local economic and employment opportunities.

If community forestry is to become a more wide-spread forest management strategy, then the question of timber availability has to be investigated further and there is much research into the

alternative means by which this could be accomplished.

Research should also be conducted into the introduction or transition period of establishing community forests to determine negative policy impacts and attempt to prevent or mitigate these. One such impact is industry's fear of fibre loss though wood being 'locked up' and not harvested. This does not appear to be a justified concern.

The next chapter will investigate: 1) the issue of employing new or old tenure systems to facilitate community forestry in British Columbia; 2) Dunster's twelve principles for establishing a community forest and how these would apply to a BC community forest tenure; and 3) what would be the characteristics of a proposed community forestry tenure.

CHAPTER VI.

DESIGN AND DISCUSSION OF PROPOSED COMMUNITY FOREST TENURES

CHAPTER OVERVIEW

This chapter addresses the last of the thesis objectives - eight through ten.

The eighth thesis objective is to investigate the issue of employing new or old tenure systems to facilitate community forestry in British Columbia. While it is faster to adapt existing tenures to new applications, there are the pitfalls of dealing with all of the aspects of the existing tenures which are either inappropriate or fail to address community forest concerns as effectively as newly designed policy tools.

The ninth thesis objective is to review Dunster's twelve principles for establishing a community forest and how these would apply to a community forest tenure in British Columbia. These principles are addressed while also considering: the provincial political and economic situation; community forestry literature; and the research survey results.

The tenth thesis objective is to draft the characteristics of proposed community forest tenures. This is achieved through using the eleven tenure characteristics as tenure elements, while addressing: survey information; research and literature material; and material from the Community Forest Advisory Committee Recommendations document.

THE QUESTION OF EMPLOYING NEW OR OLD TENURE SYSTEMS TO FACILITATE COMMUNITY FORESTRY

It is always easier to attempt to utilize or adapt existing policy, as the analysis process of new policy can be very lengthy and typically involves six steps,

- 1) verify, define and detail the problem;
- 2) establish evaluation criteria;
- 3) identify alternative policies;
- 4) evaluate alternative policies;

- 5) display and select among alternative policies and
- 6) monitor policy outcomes (Patton and Sawicki 1986, 26).

Another advantage in utilizing an existing policy is that the public, the forest sector and the government bureaucracy and elected officials are familiar with it, and have an appreciation of the policy consequences and implications. What a policy is designed to address, and what in fact it accomplishes are not always the same things. Often some years have to pass after a policy has been implemented for its efficacy or results to be observed. There are policy cumulative impacts just as there are cumulative environmental impacts.

Policy monitoring is one of the weakest stages of policy development, and is rarely done effectively, if at all. Coupled with the lack of attention to evaluating or monitoring previous policy, are the potential political hurdles of acknowledging that policy has failed and needs to be significantly altered or eliminated altogether. Governments are hesitant to admit to policy 'mistakes' due to the potential political costs.

The danger of utilizing an old policy for a new challenge or problem, is that in attempting to 'fit' the old policy to a new situation, the policy becomes ineffective at achieving the original goals or objectives. In a worst case scenario the policy fails to meet the original goals or objectives and in some cases actually exacerbates the problem.

Community forestry can offer a much greater level of local involvement and control of the forest management and harvesting activities than is currently possible under either TFLs (greatest security as well as most management control to the tenure holder) or even FLs (less security and control), even when open house and public information or participation opportunities are provided. Even with these vehicles attempting to involve the public, their participation is correctly perceived to be third hand or at best arms-length. Some foresters and academics have argued that while tenure reform is important it is some years

away and the existing provincial tenure system is not necessarily an impediment if viewed creatively.⁹⁷

This is a flawed argument for two reasons. The first reason against this argument is that even if tenure reform is some years off, it does not prohibit consideration of new types of tenure. Tenure reform does not necessitate having to address all of the existing tenure types, and undertaking a multi-year, multi-party policy development process.

There is the possibility of experimenting with new tenure forms on a small scale or short term basis. This could be accomplished with some of the unencumbered crown land that does exist - which, while not in the same order of magnitude as for TFLs or FLs, would still provide an opportunity to examine a new tenure vehicle to achieve the policy goals of better silviculture and forest management, particularly the addressing of non-timber values. The current community forest pilot project announced under the Jobs and Timber Accord is an attempt to investigate such new tenure options.

The second reason against this argument is that current tenure policy has not been successful in encouraging intensive silviculture and the socially optimal management of non-timber values. Direct public management is probably one of the best answers to these problems. The existing TFL tenure type, which of the present tenure types is the most suitable for community forestry, provides the most security and places the greatest forest management responsibility in the hands of the tenure holder, yet only basic silviculture has been practised (Haley and Luckert 1990, Shelford 1993, Rajala 1998). Furthermore, the bureaucratic process involved in administering the TFL tenure is very onerous, and this is a common complaint of many Woodlot owners, who essentially operate as miniature TFLs.⁹⁸

A tenure system for community forestry must be flexible, and the bureaucratic process must be easy to implement, undertake and provide a rapid response to the needs of the community as conveyed

⁹⁷Binkley 1993

⁹⁸Lay 1993

to the forest manager. This need for flexibility is also influenced by the potential lack of forest bureaucracy expertise/experience the community forest administrators or management might have, as well as the increased number of bureaucratic (MoF) transactions which would result from a large number of small area (relative to some existing TFLs) and lower volume (relative to many existing FLs) community forest tenures.

Community Forest Pilot Project - Committee Recommendations and Proposed Legislative Amendments (Bill 34)

As mentioned in Chapter II, the community forestry advisory committee issued its final recommendations for a community forest tenure in May 1998 and the proposed legislative changes were introduced to the Legislature on June 16, 1998 when Bill 34 received its first reading. Copies of the recommendations and Bill 34 are found in Appendices F and G respectively.

The proposed legislation incorporates many of the recommendations of the community forestry advisory committee, which proposed the community forest tenure,

1. describe a specific area of land for a community forest;
2. be long term in duration;
3. test local government and community-based legal entities that are appropriate to hold a community forest tenure;
4. provide the opportunity to manage for resources beyond timber;
5. base timber harvest rates on the community's management objectives rather than on provincial criteria for the allowable annual cut determination and cut control;
6. initially use the current stumpage system, but test alternative fiscal arrangements which would recognize broader management rights and regimes;
7. initially use a results-oriented approach to forest practices, similar to what is being developed for woodlot licences, but also examine the need for provisions specific to the community forest tenure;
8. minimize risk to communities and the province through requirements for a management plan, business plan, public involvement and reporting (Ministry of Forests 1998, 1).

These recommendations will be compared and contrasted with twelve principles for establishing a community forest and eleven proposed community forest tenure components that arise from this thesis

research.

PRINCIPLES FOR ESTABLISHING A COMMUNITY FOREST

Julian Dunster⁹⁹ suggests twelve principles that have to be considered in establishing a community forest. These principles were incorporated in the 1989 Geraldton Community Forest proposal submitted to the Ontario government, which covered approximately 70,000 hectares (Dunster 1989). These principles have been referred to in a number of community forest conferences over the years (1991 Community Forestry Conference in Thunder Bay Ontario, 1993 Community Forests Workshop in Haney BC, 1997 ICSI Community Forestry Symposium on the Queen Charlotte Islands BC), and serve as a good foundation for the structure of a community forest. Each one of these principles will be discussed as they relate to establish more Community Forestry in British Columbia.

Principle One: Land Administration

The land base is controlled and managed by the community which holds and administers the rights to manage and market the forest, (including surface and soil rights) for many outputs (Dunster 1989, 13).

The land base could be controlled through a number of property vehicles. The most simple and most complete would be fee simple title or outright ownership. The Crown (provincial government) could transfer over the ownership to the municipality either by means of straight transfer or through the sale of the land base, as incorporated communities (as corporations) are permitted to own land.

Private land is not subjected to the provincial Forest Practices Code with the exception of industry owned land incorporated into TFLs, private land incorporated into WLs and the Nisga'a Lands as proposed in the pending Agreement-in-Principle (Government of Canada et al. 1996).

⁹⁹A BC based consultant with extensive community forestry research and consulting experience.

Alternate revenue generation sources were discussed in the 1998 UBCM AGM and are discussed in their paper on Financing Local Government (UBCM Executive Committee 1998). This may include such vehicles as community forestry (UBCM Communities and Resources Committee 1998). The UBCM and its members have demonstrated strong support for the concept of community forestry through supporting this thesis research, holding the 1997 Rossland Community Forestry Conference and having two representatives on the Community Forest Advisory Committee and of course the survey results.

If provincial policy changed, and Crown land were sold, long term financing could be provided by the Municipal Finance Authority of British Columbia (MFA) using a preferential municipal rate. This is the financing conduit already used by municipalities to finance infrastructure development and other capital needs except those met by senior levels of government (Municipal Finance Authority of British Columbia 1998). MFA financing is generally limited to 20% of the last three years taxable assessments for general purposes. Most communities haven't used even a third of their available borrowing potential and there would be room for even small communities the size of Merritt (7,500 people) to borrow in excess of \$2 million.¹⁰⁰

Alternatively financing could be provided by banks or other financial institutions who already have financial dealings with municipalities. Revelstoke utilized some bank financing for the purchase of its TFL (City of Revelstoke 1995).

Transfer or sale of Crown land is not an option at this time as the provincial government is maintaining its policy of releasing crown land in very small parcels, with a large parcel being or the order of 50 ha.¹⁰¹ There does not appear to be any near term change in this policy and in fact there has been strong public support of the Crown retaining ownership of most of the land for decades (Pearse 1976).

¹⁰⁰Craven 1998

¹⁰¹Little 1998

Transfer of ownership is not necessary to establish a community forest. Existing tenure can be utilized for this purpose as evidenced by TFLs of the District of Mission and City of Revelstoke. There are inadequacies with the current TFLS and FLs and a specialized community forest tenure would be a superior vehicle to address community concerns while still protecting provincial interests.

Crown tenure is already used as a means by the government to assign harvesting rights without alienation of ownership. This thesis is focuses on tenure reform and as such will focus on this vehicle rather than a change in forest ownership.

The land base to provide every member of the UBCM with a land base would be relatively small with respect to the total provincial land base. The total land area of the province is 93 million hectares of which 60.6 million of this is forested. In the highly unlikely event that every one of the 179 members of the UBCM were to receive a 20,000 ha land base for community forests (a size similar to many European community forests), this would represent 3.58 million ha or 4 % of the total land base or 6 % of the forested land base. Unlike parks, this would not represent a net down of the land base available for industry - if fact, it may well open up contentious peri-urban areas where harvesting has not been allowed as a result of public concern over the impacts of industrial forest practices.

The provincial survey indicated a very strong interest (87.5%) for the communities to increase their understanding and awareness of community forestry. The personal interviews indicated a very strong (81%) belief that not only was community forestry considered an effective method to address community concerns but also that the municipalities were currently capable of pursuing and operating community forests. The three sets of focus group interviews supported these results.

Principle Two: A Forest Reserve

The productive and protected forest lands in the community forest should be carefully evaluated (with public input) and formally designated as a forest reserve. The Geraldton Community Forest and Forest Reserve should be formally declared and established,

perhaps by some form of Corporate Charter (Dunster 1989, 14).

This use of evaluation and formal designation would emphasize that this was a land base for forestry and forest related activities and not available for real estate development, speculation or other uses which were in conflict with the primary goals of the community forest. The provincial survey indicated a strong interest in using the community forests as economic engines for the community but being careful to address non-timber values and services as well, including but not limited to recreation, fish and wildlife and water.

As mentioned in Chapter IV, some community forests in Europe are used to constrain urban sprawl and increase development density. This creates a financial benefit to the community and its citizens, as higher density leads to lower infrastructure (water, sewer, gas, electricity, roads, etc.) and municipal service (sanitation, policing, fire fighting, etc.) capital and operating expenses. This strategy of constraining growth also assists in cost effective planning, with the direction and degree of growth being more predictable.

Over time, as the community expands, forest land immediately adjacent to the development is released and additional land bordering the outer side of the community forest land base is added on which prevents a net loss of forested land. A provision such as this could be incorporated into the forest land reserve designation of the community forest.

The provincial survey indicated that communities defined community with people, geography and activities as the three major themes. This closely mirrored the theoretical definitions of community addressed in Chapter III. People live within and interact primarily in a well-defined or bounded geographic area. That area is defined by physical geography, political boundaries, employment, economic activities, recreation and culture. There is a boundary associated with this that the community recognizes, and this boundary would be enhanced through the official designation of a community forest reserve that encompassed part of the physical area used by community members. This area would be

delineated through the community forest proposal and ensuing negotiations and review process between the community and the provincial government.

Principle Three: An Administrative Board

All aspects of management within the reserve should be controlled by a formally established corporate entity, directed by a Board of Governors composed of local and regional people (Dunster 1989, 14).

This is only one of a number of mechanisms to establish a means by which the community forest could be administered.

The Districts of North Cowichan and Mission run their community forests through a municipal forest department with political accountability through the municipal council (Allan and Frank 1994). The advantage of the municipal model is that it is a widely accepted political and administrative body, with well defined and understood rights and obligations and is able to access funding either through banks or the Municipal Finance Authority of British Columbia. It is also a model that automatically incorporates a democratic process of accountability and input which is open to all voting residents.

The City of Revelstoke operates their community forest through a corporation with a community forest board composed of city councillors and administration staff and community members (City of Revelstoke 1995). The advantage of this model is that it is a wide spread and well understood entity, which the municipality is able to employ to enter into business transactions and investments. By having city officials, politicians and elected representatives on the board of the corporation a democratic system of management and local decision making and control is ensured.

The provincial survey indicated a strong community awareness of the three existing community forests and an interest in investigating them as potential administrative structures.

The Malcolm Island community forest proposal suggests either a municipal model or a cooperative with it being too early in the process to decide on which would be the structure of choice,

The municipality offers several very significant advantages to any community hoping to develop a community forest: clearly defined geographic boundaries; clearly defined structure of democratic representation; an established set of rules of operation and decision-making; a measure of economic security due to its powers of taxation and borrowing; clear lines of communication with the provincial government (Robin B. Clark Inc. 1996 ,63).

The cooperative model was favoured by the Malcolm islanders in the public consultation process but offers two challenges; 1) existing community forests are based on the municipal model and it might be difficult to convince the government to consider a community forest for an unincorporated community; and 2) a municipality offers a 'ready-made' administrative arrangement that the provincial government and public are familiar with. Designing an alternative structure might be time consuming and very dependent on volunteer time (Robin B. Clarke Inc. 1996). There are other weaknesses to the cooperative model: as it is not as easy to obtain financing; liability is borne by the directors of the cooperative; and it is exclusionary of those who do not want to belong to the cooperative. Similar concerns exist for a non-profit organization.

Prince George's community forest proposal suggests an administrative structure of a Board of Directors with an Executive Committee which oversees six Program Steering Committees, which in turn supervise the community forest staff. This structure seems unnecessarily complicated and requires a large degree of coordination and cooperation.

The community forestry advisory committee and proposed legislation proposed four governance models for the community forest pilot study: local government model; collaborative model; non-government model; and First Nations (Community Forestry Advisory Committee 1998). These legal entities would have to exhibit, but not be limited to the following characteristics,

1. accountable to the community that it represents;
2. representative of the broad spectrum of interests in the community;
3. democratic
4. local
5. financially self-sufficient
6. ability to undertake the setup costs and the long-term investment required

7. ability to run like a business
8. broad-based community support (Community Forestry Advisory Committee 1998, 3)

The District of Mission represents the local government model, Revelstoke represents the collaborative model as they utilize a corporation to hold the TFL. Malcolm Island proposed a non-profit society which would fall under the non-government model and societies and cooperatives would face a harder time with financing due to lender concerns about security, accountability and liability. First Nations face a challenging time raising funds due to the question of security - it can be done but the legal process is more onerous than for a non-native entity due to security concerns and uncertainty regarding the Indian Act.

Community forests in Europe are run by the municipality, with either an in-house management or contracted out arrangement. Public input is welcomed throughout the year and there are specific periods set aside for public review of the community forest planning and management. Very little direct public input is received which reflects the high degree of satisfaction with the management of the community forest (Mitchell-Banks 1995). It is the local government or collaborative (using a community corporation and not a society or cooperative) models that this thesis proposes as the best means to hold the tenure as they have a proven track record, are politically widely acceptable and would be easier to successfully access funding.

Principle Four: Local Benefits are a Primary Goal

The forest reserve is managed primarily for local benefits, although these should fit in with other regional and provincial goals wherever possible (Dunster 1989, 15).

This is the fundamental premise of community forestry, the forest is managed to address the local needs and goals of the community. A community forest will work most effectively if it is the local residents that determine harvest rates and management strategies. This would suggest that community

forests not be subjected to the same cut control requirements of industrial tenure holders.

In the provincial survey, there was a strong indication from all three existing community forest communities that cut control was designed for industrial tenure holders and made no sense for communities. The local benefits being a primary goal would not remove community forests from some form of standards such as the Forest Practices Code. While the code does not control the rate of cut it may alter how the harvesting and silviculture is undertaken.

The idea of local goals being the primary goal raises the issue of provincial versus local goals and the potential for conflict stemming from the devolution of power and control - things inherent in community forestry. There are a number of mitigating factors that are likely to minimize this being a serious policy concern. These include: provincial forest policy and legislation addressing forestry in general and particularly community forestry; the scale and extent of potential community forests; the location of community forests; and community forest governance.

The provincial forest policy and legislation attempts to address a number of challenges, often competing ones, as demonstrated by the mandate of the lead agency,

The Ministry of Forests manages and protects BC's timber, range and recreation resources for the best short- and long-term balance of economic, social and environmental benefits for all British Columbians (Ministry of Forests 1996, 1).

Inevitably this policy involves trade-offs between the economic, social and environmental concerns attached to the forestry activities or lack thereof. The wide variety of resource types and challenges across the province is recognized by the Ministry of Forests who attempt to address this by devolution of power within the Ministry itself,

To enable staff to manage BC's extensive forest and range resources effectively, the forest service is decentralized and emphasizes decision-making at the field level (Ministry of Forests 1996, 7).

This decision-making largely addresses day-to-day operational concerns and the implementation of forest policy and legislation that is drawn up in Victoria. Not all decision-making is made at the local

level, with such forestry issues such as Timber Supply Review AAC decisions and the award of licences being decided in Victoria by the Chief Forester. These decisions are influenced by the analysis and advice provided by district and regional offices with the final decisions made with a view to addressing the local concerns within the provincial context.

There is thus already a flexibility at the local level of Ministry of Forests which if married to more direct control and decision making by local community authorities could serve as an effective clearing house of local issues over the community forest within a provincial context over forestry in general.

The design of the community forest pilot study and the proposed application, award and monitoring system is also designed to ensure that there are no gross conflicts between the local and provincial goals. Under the pilot study, the applicants have to confirm a potential land base and available crown timber; demonstrate broad-based community support for the proposal; identify management objectives and strategies for the community forest and develop a business plan for community forest operations. As with any tenure that is awarded, the provincial government will be able to insist that certain concerns are addressed in the award of the licence - and failure to address aspects of the licence could lead to penalties or loss of the tenure.

The scale and extent of community forests also minimizes the potential for local and provincial conflict developing to a significant degree. Community forests are by their very nature smaller in size than most of the Tree Farm Licences in British Columbia. The Revelstoke TFL (TFL 56) with a 98,500 cubic metre AAC for an area of approximately 100,000 ha (City of Revelstoke 1995) and the Weyerhaeuser Jamieson Creek Tree Farm Licence (TFL 35) with an AAC of 120,000 cubic metres for an area of 39,199 ha (Weyerhaeuser 1992, 3) would represent the maximum areas and volumes that should be considered. With higher volumes and larger areas the close relationship between the forested land and the community is lost and the potential strengths of community forestry's intensive forest

management for a variety of values would be greatly diminished. Different communities will have different requirements and this would result in a wide variety of areas managed, goals and values behind the management strategy and volumes of wood harvested.

Related to the scale of each community forest would be the extent that it was adopted and implemented by the communities across the province. There are 179 members of the UBCM and 196 Indian Bands. Not all of these communities would either have the desire or the ability to pursue a community forest either now or in the future. Simply being a recognized legal entity should not qualify the community to be awarded a community forest. The differing abilities, capacity and desire of the communities, coupled with currently available timber or that available in the near future would limit the number of community forests established and would allow time for provincial and local forestry goals to evolve over time.

Finally, the location of many community forests in the peri-urban areas (potentially the highest land use conflict areas) could potentially support both provincial and local needs as community forestry would provide a politically acceptable means to address the conflicting sociological, economic and environmental concerns that current forestry fails to effectively do in many areas - as demonstrated by many of these forested lands being included in the AAC determination but effectively withdrawn from industrial harvesting due to local political pressure.

Principle Five: Intensive Management for Multiple Outputs

The level of management is intensive and for a wide range of outputs, not just timber production, each carefully integrated into the overall community social and economic development strategy (Dunster 1989, 15).

As was addressed in Chapter IV, community forestry serves a number of purposes that are determined by the needs and goals of the community. The socio-economic situation will influence the nature of management activities carried out in the forest. Community forestry addresses a spectrum of

community needs that might include, but are not limited to: timber, water, recreation, farms, aesthetics, avalanche protection, tourism, spiritual values, green belts, urban development regulation, and noise and wind abatement.

Community forest management is not only intensive in the amount of planning on the forest land base, but also with respect to the level of harvesting, silviculture, infrastructure development (roads, trails, reservoirs, fire breaks) and public activity management (use, education, maintenance, etc.). Community forests are typically small land bases that receive a high level of public use relative to other forested areas.

The Community Forest Advisory Committee suggests a wide range of management activities which will be addressed under the proposed tenure category on comprehensiveness. The provincial survey indicated a strong interest by the communities to employ the community forests not only for timber extraction, but also for recreation, aesthetic, water, non-timber products, addressing spiritual areas and First Nations concerns (consider the membership of the Haida in the ICSI process on Haida Gwaii/Queen Charlottes).

Principle Six: Financial Self-Sufficiency

The goal of the Geraldton Community Forest is to be financially self sufficient at some carefully defined and sustainable level of management, within a set time frame from the date of establishment (Dunster 1989, 15).

This is a primary management concern with the three existing community forests in the province which have all proven to be profitable to date. The Community Forestry Advisory Committee lists one of the recommended tenure holder characteristics as being financially self-sufficient but does not mention that this is a requirement for the operation itself. (Community Forest Advisory Committee 1998).

The provincial survey indicated community concern about the profitability of community forests and there was a fear of losing money, especially during poor markets as is currently the situation. Factors influencing the profitability of community forests include: market conditions; management skill;

administration costs; land base size; forest structure and health; species mix; non-timber values such as recreation, scenery, etc.; access; operability; infrastructure state and requirements; potential cut; and non-timber management concerns.

Market conditions are not controllable, as the entire BC forest industry is a price-taker and not price-maker - regardless of the size of the forestry company or operation. Management skills and administrative costs are controllable and it is interesting to note how lean the management and administration structures are for the existing three community forests in British Columbia as discussed in Chapter IV. In the recent market downturn, it is the smaller and leaner forestry operations with lower overhead that are tending to stay open (Hamilton 1998a and 1998b).

BC communities have demonstrated no hesitation in hiring experienced professional foresters to run the forestry operations or experienced forestry consultants to assist with the community forest proposals. As mentioned in Chapter IV, the North Cowichan and Revelstoke community forests were profitable for the 1997 fiscal year while Mission incurred a loss - this was a fiscal year characterized by extensive losses throughout the BC forest industry. Surprisingly, it is the independent, family-owned forest companies who are largely still running at this time (December 1998) while the majors are largely shut down.¹⁰² Community forest operations are very similar to the independent, family-owned forest companies in lean management structure, low overheads and flexibility with respect to operations.

The careful choice of location and extent of the community forest can address the latter concerns of: land base size; forest structure and health; species mix; access; operability; infrastructure state and requirements; potential cut; and non-timber management concerns.

Given the profitability of the three existing community forests and the body of experience and expertise that could be accessed in managing a community forest - profitability over the long run should

¹⁰²Weir 1998

not be an undue concern. Profitability over the short term is a concern, and that is why the three existing community forests all have stabilization or reserve funds to permit continued operations during poor market times. Short term profitability is also a strong argument for no minimum harvesting requirements when it is not economical to pull timber out of the forest.

Zhang conducted a 1993 study of the economic feasibility of community forests and concluded,

The main conclusion of this paper is that community forestry can make money while providing other benefits to communities and governments. Since the economic gains of community forestry in terms of efficiency and distribution of income outweigh its costs, it should be considered seriously for implementation in Canada as an alternative and complementary way of managing forest resources (Zhang 1993, 20).

In establishing community forests, the temporary waiving of any stumpage or land rent to permit the rapid development of the community forest reserve funds could be considered as a policy in order to reduce the risk to the municipality and quickly establish public and private confidence in the economic viability and stability of the community forest. This would represent an 'uneven field' in the forest sector. Yet, the forests are largely owned by the people of British Columbia (by way of the Crown) and there are obvious political differences between temporarily assisting communities to establish their forests (benefiting community residents) and the repeated actions by the government to assist the forest industry in general through sympathetic administration in the 1980's, reduced stumpage and FPC requirements as is currently occurring - which benefits the shareholders.

Principle Seven: Staffing

The staff will consist of a general manager, a community forester, two technicians, and administrative support (Dunster 1989, 16).

Staffing requirements will be determined by the scale and scope of the community forest as well as the intended uses of it. There is no rule of thumb here about what staffing is needed.

Mission runs their community forest (10,400 ha with 40,000 cubic metre AAC) with two

foresters, one technician, one foreman, three crew and a secretary. Additional work, including most harvesting, trails and all silviculture is contracted out. Specialized work such as archaeology, timber supply, hydrology, bridge engineering, etc., is contracted out to consultants.¹⁰³

North Cowichan runs its community forest (5,000 ha, 20,000 cubic metres AAC) with one forester and one forestry assistant with access to secretarial services. All work is contracted out.

Revelstoke runs its community forest (100,000 ha, with 98,500 cubic metres AAC) with a General Manager and Operations Forester (both RPFs), Woodlands Supervisor, accountant and administrative assistant. All work is contracted out.

It is evident that there is a trend for the communities in BC to hire the minimum core staff and contract out all non-management work to minimize costs.

Principle Eight: The Community Forest is a Long-Term, Integral Part of the Community

The Geraldton Community Forest should be established as an integral, long-term component of the community's infrastructure and should be set up in such a way that a change of council does not jeopardize the continued existence of the forest (Dunster 1989, 17).

Community forests are long term ventures, with many of those in Europe having been established centuries ago. All three community forests in BC have been established with a long term vision, with two of them having operated for over 40 years. Indeed North Cowichan's current presentation on its community forest has the title "Our Community, Our Forests, Our Future" (The Corporation of North Cowichan 1997).

This was indirectly addressed by the Community Forest Advisory Committee by their recommendations of governance models and the duration of the tenure (Community Forest Advisory Committee 1998).

¹⁰³Allan 1998

The provincial survey indicated that the communities saw community forests as a long term and integral part of the community in the number of values and services provided by the forests, their role in the economy and culture of the area, the need to take more control of the forest land near the community and the strong desire to enter into community forestry.

A flaw with the current community forest pilot study is the relatively short time period, just over three and a half months that the communities have to put together the community forest pilot project proposals. These are complicated proposals and there is a requirement for them to be comprehensive, creative and to also address the First Nations in the area.

At the recent community forest conference *Community Forestry Initiatives: Planning for Success*, held in Vancouver October 8-9, 1998, the importance of First Nations involvement was emphasized not only by Forest Minister David Zirmhelt¹⁰⁴ but also by other Ministry of Forest officials. The researcher raised this issue during the conference, not only as a participant but also as a moderator of the last session, and was not contradicted when he stated that it was evident that a partnership involving a First Nation was essential to a successful application.

This short time frame creates a number of problems, including: a risky and high cost planning venture with a limited chance of success; an unequal playing field in which three communities have received FRBC funding for community forest proposals they have already completed (Prince George, Malcolm Island and Haida Gwaii/The Queen Charlottes) but which other communities are not able to apply for; and the necessity to address a wide number of community concerns and establish a working relationship with First Nations in the area - something many communities have failed to do and which is not achieved in just three months.

The application deadline should be extended to permit a higher number of quality proposals to

¹⁰⁴Zirmhelt 1998

be assembled and to give the communities to put together proposals that were more flexible to their needs - as those communities that are not successful in the pilot study might be able to use the proposals for other planning purposes. This aspect of the importance of the planning process applying to other uses than the community forest pilot study was also emphasized, but with limited time and limited resources, communities are going to focus the planning process on winning a community forest and will have to limit the scale and scope of the exercise to focus on that goal.

A second flaw of the pilot study is the government's refusal to commit resources to community forestry extension.¹⁰⁵ This is a serious policy omission and will result in a delay in communities acquiring information whose need has been strongly documented in this thesis's survey results.

Another aspect of the pilot study that should be revisited, is that community forestry is not a novel concept and there are three very successful operations already in the province. This being the case, there is not a strong argument to limit the pilot study number to just three or four. There is the possibility to roll out a number of pilots, perhaps 4-6 a year for five years. This would not only take the pressure off communities to 'make it' with this Request for Proposals that has a January 15, 1999 deadline (Ministry of Forests 1998a), but would also permit a wider number of small scale experiments.

Principle Nine: Management Strategies

The Geraldton Community Forest will be intensively managed for a range of purposes, utilising techniques that are not likely to create environmental damage. The management strategy adopted will be in line with the principles of the World Conservation Strategy and the World Commission on Environment and Development (Dunster 1989, 17).

Sustainable forestry is a fundamental management principle of community forestry. The forest is managed to meet the long term needs and goals of the community and to do this the forest has to be

¹⁰⁵Zirnhelt 1998.

managed in a sustainable manner that is also flexible enough to address the needs of the community which may change over time.

All three of the community forests currently operating in BC take pride in their forest practices meeting or exceeding the Forest Practices Code, and one of them - North Cowichan - is under no legal requirement to do this as the land is held in fee simple title.

The provincial survey indicated a strong desire by the communities to manage the community forests in a sustainable manner and to 'do it right'. This is a holistic view, integrating ecology, economics and social concerns such as aesthetics. The researcher was left with a strong sense that the communities has an understanding of the trade-offs that a holistic approach to forestry would require.

The Community Forest Advisory Committee addressed this through their recommendations on: levels of harvest and resource use; forest practices; Forest Practices Code; responsibilities for fire, insects, and disease; the need for a business plan and management plan content (Community Forest Advisory Committee 1998). These will be addressed under the proposed tenure categories or use restrictions and operational stipulations.

Principle Ten: Use of the Community Forest for Research, Development, and Education

The Geraldton Community Forest will be made available for people interested in conducting research and development of new, small scale technology and management methods, provided that this work fits in with the established goals and objectives. The Community Forest will be available as an outdoor education facility for use by the local schools and other interested groups (Dunster 1989, 18).

This is an element incorporated into the Oona River (Oona River Community Association and Central Coast Consulting 1993), Prince George (Cortex Consultants Inc. 1996), Malcolm Island (Robin B. Clarke Inc. 1996) proposals, and is a common element of all four Ontario community forest pilot projects (The Community Forest Group 1995).

Numerous studies and visits have been made to the three existent community forests in BC,

including foresters, school children, university students and the general public. Education is a management concern for the three BC community forests (Allan and Frank 1994, City of Revelstoke 1995).

The provincial survey indicated that there was widespread interest in the idea of using a community forest for educational purposes, and some of those interviewed mentioned that they had taken tours of some of the existing community forests. The refusal of the government to consider community forestry extension funding does constrain the use of community forests for education and extension.

The Community Forest Advisory Committee makes no recommendations for using a community forest for research, development and education - though the pilot study itself might be considered a form of research.

In the community forest conference *Community Forestry Initiatives: Planning for Success* held October 8-9, 1998 the issue of extension was raised by the researcher with Forest Minister Zerhhelt. The researcher suggested that in the provincial community forestry survey the communities had indicated a strong desire to increase their level of awareness and understanding of community forestry. Despite this, Mr. Zirnhelt indicated that there would be no funding for community forest extension in the province.¹⁰⁶ This is a serious flaw with the current government initiative and does not meet the evident perceived need for increased extension indicated by the communities.

Principle Eleven: Lifestyle and Quality of Life

The lifestyle of the local people and the quality of life that they can develop within the Geraldton Community Forest is important (Dunster 1989, 18).

Not only will the establishment of a community forest contribute to the financial and cultural health of a community, as evidenced by the community support that the North Cowichan and Mission

¹⁰⁶Zirnhelt 1998

community forests have provided (Allan and Frank 1994), but it will also contribute to community appeal in encouraging residents to remain and for people who appreciate the community forest to move to the community. Forest management, harvesting, silviculture and processing are all economic possibilities for work. Recreation, aesthetics, recreation, clean water, etc., are all quality of life concerns that create the community appeal and a sensitivity to the role of the forest in defining a community was widely demonstrated in the provincial survey work.

These quality of life concerns are not surprising given the importance of importance of green belts (Burke 1971) and green ways (corridors of treed land) in cities for a broad range of environmental, recreational, social and aesthetic benefits (Springgate and Hoesterey 1995) - with the added potential benefit of improving the property values of real estate bordering or located close to the greenways (Dwyer 1995). Forested areas can also serve as an economic engine by attracting and holding residents to a community (Power 1996).

The Community Forest Advisory Committee addresses this principle through the recommendations for tenure characteristics which include: accountable to the community; representative of the interest; democratic; and local with broad-based community support (Community Forest Advisory Committee 1998).

Principle Twelve: Establish a Demonstration Forest

A Demonstration Forest should be established along the sides of Highway 11 (Dunster 1989, 19).

The demonstration forest serves as a highly visible show case or 'shop window' for the public providing a view of what forestry methods can be applied and what managed forests can look like. Dunster argued that demonstration forests offer a number of attributes, including: job creation in the creation, maintenance and expansion of the forest sites; educational tools for both the travelling and local

public and school children; a tourism stop for people interested in learning more about forestry (Dunster 1989). The Elk Lake community forest and 6/70 community forest pilot projects in Ontario both explicitly address the need for a demonstration forest.

The element of a demonstration forest is incorporated into the Oona River (Oona River Community Association and Central Coast Consulting 1993), Prince George (Cortex Consultants Inc. 1996), and Macolm Island (Robin B. Clarke Inc. 1996) proposals.

A demonstration forest can also serve as a test bed for alternative management, harvesting, silviculture and forest uses, whose cumulative impacts might only manifest themselves after some years. This would not only serve as a management tool for that community forest, but for forestry management in similar Biogeoclimatic Ecosystems facing similar pressures.

The Community Forest Advisory Committee makes no recommendations for using a community forest for a demonstration forest - though the pilot study itself essentially established a number of demonstration community forests (Community Forest Advisory Committee 1998).

PROPOSED COMMUNITY FOREST TENURES

While it is tempting to imagine the status quo being set aside and devising extensive new legislation or social structures such as suggested in the Peel Commission (Forest Resources Commission 1991), by books such as *Forestopia* (M'Gonigle and Parfitt) or research projects such as *Forests in Trust: Reforming British Columbia's Forest Tenure System for Ecosystem and Community Health* (Burda et al., 1997), this thesis proposes a strategy of achieving the necessary objectives with the minimum level of cost and effort in addressing the shortcomings of the status quo. What is of note though, is that multiple parties are all sharing a common course and pursuing tenure reform and focussing policy attention on the need to address community needs and establish more community forestry.

The thesis pursues tenure reform which is based on evolution rather than revolution. There is an

emphasis on learning from existing community forests and addressing current forest management concerns. This is not a rejection of other approaches or philosophies as much as a belief that much good can be addressed through community forest tenures which can easily be implemented under current or amended legislation (such as Bill 34). Furthermore, time in the short term (5 - 10 years) may be best spent implementing community forestry on a wider basis with current or amended policy while over the longer term, more radical and community forest specific policy could be devised.

The limits to the potential success of the community forests do not lie so much in the forest management as in the nature and cohesiveness of the community (Mitchell-Banks 1994a, Mitchell-Banks 1994b, Mitchell-Banks 1995).

There are no major policy impediments under either municipal or forestry legislation which would prevent the proposed tenures from being implemented either in part or in total.

Any new tenure type(s) will have to effectively address the eleven tenure characteristics addressed in Chapter II as well as incorporate the twelve principles suggested by Dunster that are elements of community forestry. While these are not axioms, they have gained wide acceptance as principles and have stood the test of time by being revisited on a regular basis through publications, conferences and workshops on community forestry.

In this section, the eleven characteristics will be addressed. Five forest tenure characteristics will be common for each proposed community forest tenure.

Duration

The longest forest tenures in Canada are for 99 years duration (Newfoundland) with evergreen replacement clauses potentially extending the tenure's length for longer periods.

A community forest can serve a number of purposes, of which only one may be timber harvesting - so the amortization period of a processing plant is not necessarily an appropriate time frame for the

tenure. A more appropriate community forest tenure length would be the growing period of the forest crop, which on the BC coast can vary but conservatively can be said to approximate 80 years. Longer tenure terms would provide a greater sense of involvement with the management of the forest and would reflect the more permanent presence of a community as opposed to forest companies which have had a transient presence in many parts BC.

In most coastal areas the community would be able to harvest trees planted within the tenure term - something not possible under the TFL unless it was continually replaced. In the interior, the rotation period is longer but a 99 year tenure would approximate the rotation ages utilized. The tenure period should also be long enough to encourage intensive forestry management including incremental silviculture.

One of the advantages of community forestry is that through local management, local goals and objectives are targeted, and this results in the community having more control over its economic future - a significant concern for the approximately 900 communities across the country that rely totally or partially on the forest sector (Smyth et al. 1989). To date, these communities have depended on the political and economic decisions of both the forest company and the government. Community tenure control could provide a better negotiating position to encourage the privately owned processor to incorporate or consider some of the community's goals into its long term planning. The community could use fibre flows to encourage the establishment of value-added facilities to capture increased resource value within the community or offer the right of first refusal to a processor to encourage investment and employment generation.

Communities like to think long term, and a community forest is a long term management obligation to take on and thus requires an appropriately long term tenure. Long term tenure can be achieved through the utilization of the 99 year term with a 10 year evergreen replacement clause. Similar terms were recommended in the 1993 *Oona River Community Forest Proposal* (Oona River Community

Association and Central Coast Consulting) and the 1997 report *Forests in Trust: Reforming British Columbia's Forest Tenure System for Ecosystem and Community Health* (Burda et al. 1997). This is an existing tenure term in Newfoundland and does serve as a policy precedent that BC might chose to follow. Performance audits could be conducted every ten years to monitor management performance.

The Community Forest Advisory Committee recommended,

The community forest should be of a long-term duration necessary to:

1. provide enough security to allow investment in timber management activities;
2. provide flexibility for licensee and licensor regarding adjustments to licence agreement.

The recommended duration of the tenure is in perpetuity, with a mechanism for periodic review to ensure tenure is managed to achieve community objectives. Review of the terms of the agreement should occur at least every 10 years, or more often as agreed mutually by licensee and licensor (Community Forest Advisory Committee 1998, 8).

The government has rejected the perpetual term and proposed a term between 25 - 99 years in duration (Ministry of Forests 1998a). A periodic review to ensure that the tenure is managed to achieve community objectives emphasizes that this is not a perpetual tenure as the tenure would theoretically be taken away or lapse if the management was deemed to be insufficient. So, while the idea of a long tenure is similar, the researcher does not support the concept of a perpetual tenure, rather one that is long in duration but with a discrete term. Provincial and local goals can evolve over time - periodic replacement of a community tenure would permit greater flexibility in this regard to not only readdress provincial and local goals but also ensure that conflict between the two was effectively addressed. The greatest duration would occur with fee-simple title. This is not only unlikely given the pilot study but also not recommended. In the 1976 Forest Commission report, Pearse provides three arguments in favour of retention of Crown title over forested land - arguments that hold true today,

From the industry's point of view of Crown ownership, and sale of timber as it is harvested, means that the public bears the enormous cost of carrying the forest inventory, so that the capital required to enter and operate in the industry is substantially reduced, as are the financial risks involved, The risk is absorbed by the government to this extent, but it permits a continuing public financial equity in forest resources.

In my judgement, however, the most important benefits of public ownership of forest resources are twofold. First, it enables the Crown to protect and enhance the values of forest land that do not produce financial gains to private owners. Environmental values such as public recreation, fisheries, wildlife, water regulation, aesthetics, and so on can be protected through legislated controls on private landowners, but this affords a much less tractable and sensitive means than a public landlord's right to regulate resource use. As the demands on forest resources increase from all users, some of whom have conflicting interests, the value of retaining the right to determine the compromises to be made in specific circumstances will grow accordingly. Second, public ownership provides the government with powerful means of shaping the pattern and pace of economic development in the province. Whether this power is well used is, of course a separate question; but with growing public interest in deliberate policies for directing the geographic and structural patterns of growth, this too is an increasingly important consideration. These two benefits of public ownership are particularly significant in British Columbia because of this province's extreme dependence on forests for both its economic welfare and the quality of its natural environment (Pearse 1976, 57).

If the province were to change its policy over the sale/transfer of large land areas to municipalities, one option would be for the government to cancel the existing community forest tenure and award or sell the forest land base outright to the community after a mutually agreed to trial period. A trial period of 10 years would not be inappropriate as this would enable the community forest to be established, harvesting and infrastructure to be developed and the results of the earliest silviculture work to be effectively demonstrated. The 10 year time period would also enable the community enough time to develop a community forest reserve fund and local experience and training in the management and operation of the community forest.

Creative ways could be used to establish the necessary land base for viable community forests including, but not limited to: 1) the purchase of tenures when they become available (City of Revelstoke 1995); 2) management sub-agreements with existing tenure holders offering the tenure holder right of first refusal to any timber harvested from the area; 3) land swaps - as has occurred in Rossland,¹⁰⁷ partnerships with industry as demonstrated by the Revelstoke community forest (City of Revelstoke 1995); 4) use of Small Business Forest Enterprise Program wood (Islands Community Stability Initiative

¹⁰⁷Carrel 1997

and Ministry of Forests 1996); municipal land (District of North Cowichan); private land; and uncommitted cut.

Transferability

The very nature of community forest tenures reduces the need for transferability. Community goals and needs can change over time and might even involve land swaps. This transferability could be limited to another community structure or organization.

If the community forest were not to prove successful, or if the Community Forest Board were to mismanage the tenure, and no acceptable (to the Crown) alternative community structure or organization existed then the land could simply revert back to the Crown - with suitable security to address any outstanding management or silviculture obligations. The degree of success of community forest management could be addressed through an auditing process, with mutually agreed to audit objectives and targets at the establishment of the community forest. An independent third party auditor could be employed to carry out the audit.

The Crown would be able to set any reverted land aside as a forest reserve or reassign the land base to an industrial concern, native band or other community group.

The Community Forest Advisory Committee recommended potential transferability to another community organization (Community Forestry Advisory Committee 1998).

Allotment Type

It is proposed that the rights be granted for a specific geographical location, and thus the tenure would be area-based and not volume-based. This was also a recommendation of the 1991 Peel Commission, the Oona River, Prince George, and Malcolm Island community forest proposals, the Forests in Trust Report (Burda et al. 1997) and the Community Forest Advisory Committee (Community

Forest Advisory Committee 1998). Area-based Tree Farm Licences have historically led to better forest management practices than volume-based Forest Licences.

An area-based tenure encourages the tenure holder to deal with management on a more specific basis within a clearly defined area and more effectively encourages the incorporation of timber and non-timber values into the land planning process. A community relates to a specific geographic area - this was clearly demonstrated in the provincial survey and is manifested by the economic, recreational and cultural activities that occur in that land base. Municipalities are also clearly demarcated by political boundaries and jurisdiction is dictated by these boundaries. Communities and the political infrastructure are established on the basis of land base and not timber volume and this argues in favour of having an area based community forest.

All four of the Ontario community forest pilot projects are area based and not volume based. The three existing community forests in BC are all area based. The researcher is not aware of any volume based community forests in Europe or for that matter elsewhere in the world.

Security

This depends on the likelihood or probability that tenure holders believe exists for the replacement or renewal of their tenure property rights, either in entirety or partially, when the term expires. The replacement or renewal can apply to the complete bundle of rights, or only some of them in the case of a tenure being modified prior to renewal or replacement. Less secure tenures may result in the tenure holder being hesitant or cautious regarding additional effort or funds being put into management, silviculture, harvesting or processing. If the provincial government expropriated the associated property rights to a community forest, that community should be eligible to identical compensation requirements as apply to rights expropriated from a privately held or publicly listed forest company.

The greatest level of security is offered under fee simple title. This thesis is focussing on tenure reform, so the default is the longer the term of the tenure, generally the more secure is the tenure holder. Once a community is awarded a community forest tenure, it would be politically very difficult for a provincial government to take it away for anything less than gross mis-management or failure to pay stumpage or any fees associated with the holding of that tenure.

The proposed 99 year term, with 10 year evergreen replacement clauses would provide a large degree of security to the community forest tenure holder.

Operational Control

Due to the broad degree of timber and non-timber values that are to be managed in the community forest, one approach would be to have a level of operational control that was similar to that TFL. The TFL is the existing tenure type with the most onerous management responsibilities for the tenure holder (even though there are no silvicultural incentives). Woodlots have a similar administration requirement and this has led to complaints about the control being too onerous and restrictive for both tenures. Neither tenure type is designed to address non-timber values in a proactive and comprehensive sense - something which is important in community forestry.

Community forests do not focus on timber values exclusively, but incorporate other publicly driven forest-related concerns such as recreation, aesthetics and water quality. A community forestry tenure should have greater flexibility with respect to the management of all forest resources than exists in current tenures which are centred around the sustained yield concept. An example of this is not establishing minimum harvesting levels, either on an annual or over a five-year period, as is the case for some existing tenures

Existing tenures were designed by the government to focus on timber harvesting and processing and to a lesser degree on silviculture. Community forests are more encompassing in terms of

management goals and objectives and have to integrate a lot more concerns from the local public into the management of the forested area. The requirement of management and business plans under the pilot study (Ministry of Forests 1998a) are creative means of addressing the need for creative approaches to community forestry management while still permitting the provincial government to have a level of comfort with the degree of operational control.

The Management plan would,

...describe the community forest vision, strategic goals and objectives, as well as the activities that will be undertaken to achieve these goals and objectives...Having the management plan as part of the tenure contract provides the greatest flexibility to achieve this because the content requirements can be tailored to each community forest proposal (Community Forest Advisory Committee 1998, 5).

The business plan would,

...help ensure that a community has thought through how it will achieve its objectives and meet the terms of the tenure agreement. A business plan should be required as part of the application for a community forest tenure (Community Forest Advisory Committee 1998, 6).

So in effect, the management plan sets out the long term plan or strategy while the business plan addresses what specific actions are taken and assumptions made in pursuing the management plan.

The government is able to ensure that the community follows through on the community forest pilot agreements and monitor and evaluate the pilot study as whole through monitoring and evaluation of individual pilots and the project,

Individual community forest pilot agreements, and the overall community forest pilot project, will be monitored and evaluated by government during the pilot period and at its conclusion. Results of the monitoring and evaluation process will help to identify successful elements and potential pitfalls associated with the new form of tenure. These results will be used to determine whether government should proceed with adoption and expansion of a community forest program, which would include the replacement of existing community based forest tenures with the new community forest agreement. It will also be used to determine whether individual pilot holders should be offered long-term community forest agreements and the conditions of those agreements if offered. To support the monitoring and evaluation process, each community forest pilot agreement holder will be required to monitor and report on its progress towards achieving management objectives, commitments, obligations and requirements specified

as part of its agreement. It will also be required to commission independent annual audits to provide external evidence that reported activities, expenditures and revenues are accurate, and that applicable forestry and environmental standards have been met (Ministry of Forests 1998a, 11-12).

These are far higher standards of operational control than required of any existing forest tenure holder who do not have to have independent audits of either operations or financial reporting. The community forest pilot studies fall under the Forest Practices Code and will be required to undertake similar planning as required for a Woodlot License and will be responsible for,

...complying with all legislative requirements of the *Forest Act, Forest Practices Code of British Columbia Act, Heritage Conservation Act, Fisheries Act, Water Act, Wildlife Act* and all other applicable acts and their regulations (Ministry of Forests 1998a, 10).

Like woodlots, community forest tenure holders will be responsible for protection of the forest land base from fire, insects and disease (Ministry of Forests 1998a).

Potential Community Tenure Variability

No two communities are identical, either in their physical, geographic, demographic, social or economic structure. It is unrealistic to apply one tenure type to address the needs and goals of a wide range of community types. Customizing the community tenure to meet the specific needs of a community could be addressed through variations of the following six tenure characteristics or elements.

The following six tenure characteristics could be established in a variety of forms, giving rise to a number of community forest tenures with different policy structures, which in turn would influence the nature of the community forest structure and operation.

Size Specification

Land area should be chosen for a number of reasons, including: economies of scale; financial solvency; productivity (i.e. site classes); physical boundaries; manageability; access; operability; forest

age class, structure, species mix and health; non-timber values; forest related activities such as water management, grazing, recreation, spiritual and cultural activities, tourism, aesthetics and conflict minimization.

Ideally, the physical boundaries are clearly defined which not only allows for easier management but also permits the public to more closely recognize and identify with 'their' community forest. Discrete physical boundaries, such as a watershed, also allow for more effective integrated planning to address such concerns as hydrological flows, water quality, fish spawning areas, land slides, etc.

A target harvest volume (which would influence the size of the community forest) should be targeted in order to address the need for the community forest to be profitable. North Cowichan has demonstrated that an AAC of 20,000 cubic metres can be a profitable volume to manage - but caution should be taken not to use this as a rule of thumb, as the land base and operability, etc. of the North Cowichan community forest is not likely to be common to other community forests. The minimum harvest volume could be negotiated between the community and the government through the Ministry of Forests.

This would not necessarily create a net-down for industry available volumes, as many community forests could be established in the peri-urban and therefore more controversial or conflict-ridden management areas. This volume can be tied up in either drawn out planning efforts such as the Arrow Creek Watershed that now is the chart area for Creston's Forest Licence is an example. Alternatively, it could be forested land set aside temporarily leading to heavier harvesting pressure put on the remaining land areas, such as had occurred with the Vernon Small Business alternative harvesting approach enabled timber visible from Cherryville to be harvested with minimum public conflict.¹⁰⁸

Industry have also demonstrated support for community forests, as demonstrated by the

¹⁰⁸Smith 1995.

partnership in the Revelstoke Community Forest Corporation (City of Revelstoke 1995) and the ongoing effort on the Queen Charlotte Islands (Islands Community Stability Initiative and Ministry of Forests 1996).

The Community Forest Advisory Committee recommended that,

Size will be dictated by community objectives, type of forest and economic viability...Size is important if the community forest is to be self sustaining... Size will vary with community objectives, location in the province, and productivity of the forest land base...It is not desirable to stipulate size limitations at least during the pilot period (Community Forest Advisory Committee 1998, 2).

Comprehensiveness

Some community forest models have all of the property rights associated with the land being assigned to the community forest and the community residents (Dunster 1989). These property rights include mineral rights, water rights, recreation, fish and wildlife, etc. Theoretically, by assigning all of these rights, the land area will be managed in a tightly integrated fashion.

There is already the available policy ability to manage/administer recreational, hunting and fishing areas that are limited to people who have purchased temporary access rights. This is already being done through draws for access to use the West Coast Trail, guiding territories, and the Limited Entry Hunt system for certain species of wildlife. There is the possibility of establishing partnerships or co-management of these resources, with revenues being split between the community forest and the provincial government.

Some non-timber rights, such as minerals, oil and gas, etc, require very extensive expertise and resources to explore, develop and manage. The scale and scope of this would likely be inappropriate for a community to manage effectively and efficiently, and the benefits of integrated land management could be offset by inefficient mineral or oil and gas development. The management of these resources could be contracted out, but this would reduce any public involvement and benefits associated with the

management. Currently there is no demonstrated government willingness to consider management of these resources at the local level or within a community forestry context.

Assigning non-timber rights to a community forest tenure could also involve significant political negotiation between both the private and public sector as there would be a wider number of smaller jurisdictions that resource developers such as oil and gas, mining, tourism enterprises would potentially have to negotiate with to have access and use rights.

The assignment of non-timber rights might also involve revisiting sections 91 and 92 of the constitution. These sections lay out the governance responsibilities of the federal (section 91) and provincial (section 92) governments. Section 92 assigns the control over the forests to the provincial governments. Other rights being assigned to community forestry may involve some negotiation between the two governments.

The Community Forest Advisory Committee recommended assigning the communities rights over timber, botanical forest products, firewood, recreation, range resources, gravel extraction, control and charge for access development and maintenance. This was driven by the appreciation that a wider range of control over rights offered a greater flexibility in achieving their social, economic, ecosystem and forest management objectives (Community Forest Advisory Committee 1998). The legislation provides for timber and botanical forests rights to be assigned, but does not provide rights to manage for other resources such as range, recreation, gravel, fish, water and wildlife. The provincial government has indicated that there needs to be additional consultation with regard to these other rights (Ministry of Forests 1998).

Ideally more than just the harvesting rights would be subject to the community land administration, as this would permit more integrated and coordinated planning. To accomplish this, there would have to be a significant change in legislation and the provincial government had previously indicated that they were not prepared to consider this (Sihota 1994) but the recent proposed legislation

(Bill 34) does provide the opportunity to manage for resources beyond timber such as botanical plants and recreation. This has already raised concerns with First Nations over the infringement of aboriginal rights and also because there are no policies established to address benefits sharing as mandated by Article 8(j) of the Convention on Biodiversity (Higgins 1998).

For practical reasons and to speed implementation, rather than assigning these non-timber rights to the community forest, it is anticipated that it would be easier and more effective to permit the community residents to participate or influence the management of these non-timber rights through other means, such as zoning, public participation and decision making, vetoes, appeals, etc. First Nations concerns have to be addressed with regard to aboriginal rights infringement and the potential contravention of the Convention on Biodiversity. Negotiation could be agreed to in principle to occur over time for the incorporation of specific non-timber rights into the community forest tenure.

Right of Tenure Holder to Economic Benefits

A community forest can provide both economic, social and environmental benefits to the community residents. The economic benefits will be limited by any levied taxes, stumpages, royalties, land rents or other associated land charges.

In order to address the concerns of community members, as well as to ensure that the crown receives a reasonable revenue from the tenure, the following arrangement is proposed.

All timber management, silviculture and harvesting in the community forest will be put out to public sealed tender, with residents of the community having the right to match the winning bid, if their qualifications, resources and experience are judged to be acceptable for the proposed activity. Currently, all work is contracted out in the Mission, North Cowichan and Revelstoke community forests.

There is no requirement of a manufacturing mill (appurtenant mill) for the community forest pilots. This recognizes that,

Flexibility and "freedom to manage" are key principles of community forestry, and considered essential to the community's ability to be self-sustaining. Communities should determine what is to be produced and have rights to independently market products from the community forest (Community Forest Advisory Committee 1998, 6).

Haley and Luckert argue that the value of any asset is determined by how much value the holder can accrue or earn from the use of that asset, through the successful exploitation of the property rights,

In fact, any requirements attached to tenure agreements which limit their holders' freedom to manage, or dispose of, their holdings in ways which maximize their net returns, erode the tenure holders' rights to economic benefits and have an impact on management strategies (Haley and Luckert 1990, 17).

A community forest has greater flexibility with no appurtenant mill as it can sell the logs to the highest or most desirable bidder (job creation, investment, etc). Logs harvested from the community forest could be marketed in a number of ways. Log sales could be put out for public sealed tender, with the local community sawmill(s), and any other community timber user having the right to match the winning bid. An alternative to this is the use of log yards (with no right to community residents to match the winning bid) whose success in generating higher value per log, running at a profit and increasing access for all timber users has been proven in the Vernon project (Price Waterhouse 1995) and for the City of Revelstoke (Hamilton 1998b).

Timber is sold on the market by all three existing community forests, with no long term supply agreements in place - with the exception in Revelstoke for the 50% of the timber harvest that the industry partners are entitled to purchase at full cost. The Districts of Mission and City of Revelstoke pay stumpage as they operate TFLs, while the District of North Cowichan does not as they hold their community forest in fee simple title.

Part of the rationale behind the logs being sold on the market is that community residents will automatically have a bidding advantage due to their location close to the forest, as well as knowing the forested area better than a non-community resident. With the least expensive (but qualified bids) being awarded management or operational work and the highest bids being awarded the timber, there is some

assurance that the crown and/or the community earn the maximum revenue from the community forest.

Log exports are a controversial policy within the province and are restricted to promote local processing and maintain employment in the forest sector. Log exports are not permitted under the community forest pilot study. The Community Forest Advisory Committee argued that,

...allowing the community to export logs would contravene a basic tenet of community forests - the maintenance and creation of local employment (Community Forest Advisory Committee 1998, 9).

This argument is flawed for a number of reasons. The first error is that the primary premise of community forestry is local control and local decision making - it is not the creation of forestry jobs, either in the harvesting or processing sectors. The community should be free to utilize the value of the logs harvested off the community forest land to optimally improve the health and stability of the community while undertaking effective forest stewardship. The forest sector may be just one sector within the community and should not dominate all economic decision making.

The second flaw is that at times, the export of logs could create a higher return to the community than selling or processing them locally. This higher return in capital could be used to establish new forestry operations, upgrade harvesting technologies or skills, forest management technologies and skills or invest in sectors other than forestry. The point is that the community is best able to determine how the value from the community resource would best benefit the community. Strong communities are a provincial aim as communities are the underpinnings of the entire provincial community.

The third flaw is that log exports are currently permitted in BC with an exemption provided by the Forest Minister. It is inconsistent to prohibit community forests, which by their very nature will have smaller harvest volumes, from entering this lucrative market while permitting some exports for the industrial companies. If there are to be any exports, the communities should be given this option as they are having to overcome obstacles such as reduced scale and scope of operations which do offer some advantages to the large forestry companies.

There are a number of potential methods for the crown to earn revenue from the forest land of the community forest.

Stumpage could be assigned at the current rates applicable to the Forest District, with the community forest users paying these rates. The advantage of this approach is that the system is already in place and would not require any change in existing legislation or policy. This is the proposed approach under the community forest pilot program (Ministry of Forests 1998a) along with a land rent which has yet to be established but for the purposes of the applications has been pegged at \$1.25 per hectare of crown land. Crown stumpage revenue would be more variable with the no cut control policy for community forests than is currently the case with industrial tenures. The government has indicated an interest to investigate alternative fiscal arrangements to stumpage in the future (Ministry of Forests 1998a).

A consideration though is whether full or any stumpage should be paid by community forests, as they are run to address the needs of the community members - a subset of the public who own the resources. The smaller size of the community forests would limit large scale redirection of forest stumpage revenues away from the Crown who would still benefit from the tax revenue generated from employment and business. There have been periods, as discussed in Chapter II, in which stumpage revenues did not cover the cost of operating the Ministry of Forests, and it is the business and corporate tax which generates a larger revenue stream for the province than stumpage.

An alternative to using the existing stumpage rates would be using a threshold stumpage, based on some percentage of the average stumpage rate for that forest district, forest region, coast, interior or the province itself. This would offer a potentially lower stumpage to the community forest while still providing the Crown with some revenue. This threshold rate could be established on either a regional basis or there could be a rate applicable to all community forests and which would reflect the multiple values and services which community forestry addressed.

A royalty system could be incorporated, much like the system that applied to the District of Mission community forest until the late 1970s (District of Mission 1996). This did provide an economic advantage to the municipality in establishing the community forest. While stumpage has replaced royalties within the forest sector, they are still employed in mining, another important BC industry. The great differences between community and industrial forestry would support a government initiative to implement a royalty system instead of stumpage.

A Crown revenue scheme for community forests could employ the Vancouver Log Market. Log prices determined in that market could be used to establish the value of logs harvested on community forest lands. This is an established log market but there have been concerns raised about whether it really represents a competitive exchange market mechanism.

A profit-sharing scheme could be established between the provincial government and the community forest. This could involve an arrangement modelled on the Revelstoke community forest, in which half of the timber is provided at cost to the industrial partners and the rest is sold through a log yard. The Crown could be provided with a proportion of the timber at cost and then market it through a log yard or award it through a modified bid system. This would permit the Crown to direct volume for purposes such as job creation or maintenance or supporting processing innovation.

A land rent system could be used - similar to that proposed as part of the Crown remuneration system in the pilot study. The rental rate could be paid on an annual basis with the community being able to harvest at rates that either do not influence the land rate scale or influence the rate by it being proportional or scaled to various harvest levels. This would ensure a more predictable revenue stream for the Crown and would free the community from making harvesting decisions based on stumpage rates and would permit harvesting decisions based on forestry or community management decisions.

With respect to non-timber economic benefits, there is a wide spectrum of possibilities to generate revenue from the sale of licenses to deliver services (such as guiding and recreation) and also

for goods, such as (bottled water or non-botanical forest products such as mushrooms, salal, evergreen floral arrangement material) with the proviso of addressing the issue of benefits sharing as mandated by article 8(j) of the Convention on Biodiversity (Higgins 1998).

Exclusiveness

The success of common property management schemes throughout the world reflects the effective management, regulation and enforcement of the property rights associated with the common property tenures. Hardin's tragedy is not the inevitable result of common property, rather it originates with the inadequate management and enforcement of rights found within common property. In Chapter IV the proposition was made that community forestry offered a variation of common property but with legislated property rights belonging to the municipal or community corporation acting on behalf of the residents.

Community forests do have exclusivity and the Community Forest Advisory Committee suggests,

To the greatest extent possible, rights granted under a community forest tenure shall be exclusive to the community forest tenure holder. Exclusive and comprehensive resource rights will contribute to long-term community stability (Community Forest Advisory Committee 1998, 4).

Exclusive timber harvesting rights are currently assigned through the existing tenures, with aboriginal rights being the only rights potentially superseding these (Higgins 1998). Exclusiveness for other non-timber resources is addressed in the section on comprehensiveness and poses some challenges as the provincial public is used to ready access to Crown land for hunting, fishing and recreation. Enforcement of access could also likely prove to be politically difficult and both expensive and technically challenging to achieve for the community forests.

As was discussed earlier, there may be a means to obtain exclusive use to some non-timber rights through limited recreational access and Limited Entry Hunts and Fishing - as both of these restrictions

or situations of exclusiveness have been established in the province, albeit it under sole provincial control. Hiking or non-consumptive recreational access could still be permitted or a user fee applied - as is the case with certain Provincial and Federal Parks that are heavily used.

Partnerships or co-management might be avenues to address the issue of exclusiveness. Hunting rights could be assigned to a guide-outfitter, fishing rights to a fishing, recreation rights to a commercial tourism enterprise. Different communities would want to pursue different exclusive elements to their tenures depending on the resources that existed or which could be developed.

Use Restrictions

The community forest would be subject to some use restrictions which will be determined after having conducted a detailed land and resource inventory and analysis. There could be certain sections of the forested land set aside for: aboriginal needs¹⁰⁹ (spiritual, traditional use); ecological; fish and wildlife; recreational; educational; aesthetic; water management; and spiritual/cultural reasons. Other sections of the forest may be restricted as to the harvesting and silvicultural practices undertaken, selective logging for high visibility areas, clear cuts with a maximum size, areas where thinning, spacing and pruning might be carried out, etc. The Community Forest Pilot Study requires the operations to be subject to the Forest Practices Code and this will result in certain areas such as riparian areas, watersheds (particularly community watersheds) and other areas having code required use restrictions.

A forestry management and/or business plan could address the potential limitation of both consumptive (hunting and fishing) and non-consumptive (bird watching, naturalizing, art) recreation to specific areas. By the use of zoning and integrated resource use, it is hoped to maximize the number of uses of the community forest while minimizing use conflict. The management plan required under the

¹⁰⁹First Nations and religious ceremonies in the North Cowichan Community Forest

community forest pilot project (Ministry of Forest 1998b) which addressed community goals for the community forest would address the issue of potential use restrictions.

Use restrictions can also be used to promote the production of certain products such as lumber, etc. if it is felt that the market does not capture or reflect all of the social values associated with the manufacture and supply of that product.

Operational Stipulations

The operational stipulations or contractual obligations are a key element of forest tenures, and vary widely as to the scope of management practices addressed and the degree to which enforcement is undertaken by the crown.

Fewer stipulations are required where the public (crown) and private (tenure holder) objectives coincide or are not in conflict (Haley and Luckert 1990). This is often the case with a community forest, for which the community residents decide what common goals the forest will address. There may perhaps be additional restrictions or stipulations being negotiated with local First Nations or land owners to address local issues - it was addressing local visibility concerns that drove much of the innovative small business logging in the Cherryville area of the Vernon Forest District.

Cut control requirements are restrictive and can be economically damaging, especially for community forests which are not solely timber driven and address a multitude of values. All forest operations in BC are price takers but the smaller tenures, especially the more onerous (in terms of management requirements) TFLs and Woodlots, while having to undertake similar amounts of planning as the larger area tenures lose out on the scale of operations and the revenue generation from the larger harvest volumes.

Harvesting trees in unsound market conditions does not make much sense at the best of times, unless it is anticipated that the market will quickly change or there are even greater costs associated with

shutting down the harvesting operation. Vertically integrated forest companies may continue to harvest in order to avoid shutting down appurtenant sawmills and especially pulp mills - whose continuous flow processing operations are particularly costly to shut down. The companies can often use depreciation to supplement their cash requirements, but the purpose of depreciation is to build up funds to reinvest in new capital for future operations not to supplement non-economic operations.

By not having a cut control as exists for the TFL or FL, or to a reduced extent the Woodlot Licence, the community forest operation can capitalize on the market situation and harvest timber when log prices are high and focus more on silviculture and planning work when the prices are low. They can effectively act as a market logger without the constraints of cut control. The Community Forest Advisory Committee argued for no cut control suggesting instead,

The specification of periodic harvest or use constraints (particularly for timber) in the community forest management plan is intended as a more flexible alternative to cut control for addressing community and ecosystem stability (i.e. stable jobs, steady flow of benefits, healthy ecosystems). A long-run sustainable timber harvest level should be established as a ceiling to safeguard the resource. It should not be a required level of harvest. Communities should have flexibility in deciding on levels of harvest and use to take advantage of market cycles and respect ecosystem and non-timber objectives (Community Forest Advisory Committee 1998, 4).

The government has agreed to no cut control and this will greatly assist the community forests in achieving the greater flexibility that they will require. No cut control also permits more flexible forest management, in that a number of strategies can be pursued that might have been limited by having to meet cut control strategies.

One management strategy would be to only harvest the old growth with high tree ring density (hence high value) during strong markets to maximize their value, or conversely during poor markets when harvesting is required and the operations need to be as profitable as possible. Another strategy might be to utilize the profits made from harvesting to invest in intensive silviculture such as fertilizing or pruning for specific markets such as clear rounds - when more silviculturally cost conscious forest

companies would not normally undertake this work without FRBC support.

Profits from timber harvesting could also be directed towards more integrated resource management with wildlife values being enhanced through encouraging browse such as willow for deer, moose and elk species, or berry growth for bear and berry eaters such as birds, small mammals. The greater freedom to maximize the timber value creates the opportunity to raise more revenue and invest that revenue back into the forest land base using strategies that industry do not normally use as they have more of a timber biased and cost centre approach rather than a holistic and investment centre approach that community forests would encourage.

In contrast to the relaxed cut control, the community forest pilot studies appear to have other more rigorous operational stipulations than either the TFL, FL or Woodlot License as there is the requirement to submit a management plan, business plan and have annual independent auditing of both the forestry operations and the financial operations of the tenure. This appears to be overkill, as these requirements are not required of either the Mission or Revelstoke TFLs and they are both being successfully run as community forests and under a more restrictive regime of planning requirements and cut control.

Having forest plans signed off by a Registered Professional Forester (RPF) should suffice to address the operations aspects and if there were any concerns there could be an audit by the Forest Practices Board - as is the case for other industrial tenure holders. It is unclear why there should be stricter monitoring of a community forest tenure holder for compliance with the tenure conditions than there is for a company tenure holder who is supposed to meet their TFL or FL commitments. Community forestry tenures should be subject to the same monitoring and enforcement regime that applies to the industrial tenure holders. The increased openness of the community forestry planning process and opportunity for increased public participation and involvement in the decision making would serve as an excellent check and balance on the management of the community forest.

The community forest should be required to undertake forestry that is at least equal to the standard acceptable for other tenure holders who are governed by the Forest Practices Code. While the code does limit alternative forest practices such as ecosystem-based forestry (Burda et al. 1997), it does serve the useful purpose of providing a baseline to evaluate the efficacy of the forest management. A modified code, even a 'results based' code could be developed over time for community forests, but in the interim something akin to the new standards for Woodlot Licences would suffice, and this was a recommendation of the Community Forest Advisory Board and was accepted by the government.

CHAPTER SUMMARY

This chapter has addressed the last three of the ten thesis objectives.

The eighth objective was to investigate the issue of employing new or old tenure systems to facilitate community forestry in British Columbia. Attempting to utilize or adapt existing policy is often considered due to the time and budget savings in policy development and the familiarity of the public and private sectors with the existing policy. Policy monitoring is typically poorly executed and there is a historical reluctance from government (and at times industry) to admit to policy failure.

Some foresters and academics have argued that tenure reform is years away and that the existing tenure system could be utilized creatively. This argument is flawed because policy experimentation could still be carried out on a small scale or short term basis which offers advantages (consider the recent Community Forest Pilot Project). A second flaw is that the existing tenure policy has not successfully encouraged intensive silviculture and the socially optimal management of non-timber values and direct public management, such as through a community forest, is likely one of the best answers to these problems. Existing tenures are too limited and rigid in their design and application. Communities have different needs, and their community forest would have different goals and objectives, which would require a new and more flexible form of tenure.

The ninth objective was to review Dunster's twelve principles for establishing a community forest and how these would apply to a community forest tenure in British Columbia. The twelve community forest principles suggested by Dunster in his 1989 Geraldton community forest proposal are discussed and elaborated on with attention to how they are supported by either existing community forests, community forest proposals and the provincial survey carried out to determine the level of awareness and interest in community forestry. These principles still hold and are supported by community forestry literature and survey results.

The tenth objective was to draft the characteristics of proposed community forest tenures. This thesis proposes tenure reform that is practical rather than visionary, and which focuses on achieving the necessary objectives of community forestry with the minimum of cost and effort to address the shortcomings found in the current forest tenure system.

Eleven characteristics of desirable community forest tenures are discussed, with five of these characteristics being common to all proposed tenures. The five common characteristics are:

- 1. Duration** - 99 year terms with 10 year evergreen replacement clauses;
- 2. Transferability** - only transferable to another community;
- 3. Allotment type** - area based;
- 4. Security** - tenure with a 99 year term and 10 year evergreen replacement clause would offer adequate security. Any expropriation, deletion or significant change to the tenure would be subject to compensation to the same degree afforded the forest industry;
- 5. Operational control** - employ a management plan to delineate the vision and intent of the community forest and a business plan lay out the financial management strategy. The monitoring and evaluation required by the Ministry of Forests under the community forest pilot study is considered to be onerous and unnecessary and biased as it is not required of other tenure holders. Community forest management would have to meet all legislative requirements of the *Forest Act, Forest Practices Code of British*

Columbia Act (employing the new standards for Woodlot Licences), *Heritage Conservation Act*, *Fisheries Act*, *Water Act*, *Wildlife Act* and all other applicable acts and their regulations. No cut control permits market logging and more flexibility with regard to forest management.

No two communities are alike, with a wide range of variation found in physical geography; socio-economic aspects; the state of the forest land base, etc. Community variability could be addressed through variation in the last six tenure characteristics:

6. Size specification - sufficient land base area to allow for a profitable enterprise that can effectively address some of the goals and needs of the community that would be specified in a forest management and business plan. Size would be negotiated between the community and the provincial government but 100,000 ha which is the size of Revelstoke's TFL would be considered a maximum size;

7. Comprehensiveness - while ideally planning incorporates all resource concerns, there are difficulties with respect to community forests taking this on due to scale and scope of the resource, jurisdiction (sections 91 and 92 of the Constitution) and inter-departmental jurisdiction (MELP and MoF for example), and First Nations concerns over botanical forest products. Possibilities exist to address botanical products, recreation, tourism and fish and wildlife harvesting. At this time it is recommended that only timber, recreation and commercial tourism be incorporated. Once the issue of botanical forest products was addressed with First Nations, then this could also be included.

8. Right of tenure holder to economic benefits - contracting out work through sealed bids with right of first refusal to community members is the recommended way to obtain goods and services. Timber harvested would be marketed through sealed public bid or through the use of log yards. Log exports should be permitted as this may permit communities to achieve higher returns than forcing them to sell within the province and this money could be reinvested back into the forest, the workforce or building community infrastructure or other economic sectors. Stumage and/or alternative government revenue schemes such as land rent or revenue sharing could be employed.

9. Exclusiveness - potentially addressed through comprehensiveness incorporating botanical products, tourism and fish and wildlife harvesting. Technically and financially challenging but models do exist in terms of Limited Entry Hunts, fishing and recreation by permit, and partnerships with commercial enterprises giving them exclusive commercial recreation and tourism development rights.

10. Use Restrictions - Certain sections of the land base may have to be set aside for specific concerns, including: aboriginal; ecological; fish and wildlife; recreational; educational; aesthetic; water management; and spiritual/cultural concerns. The use of the Forest Practices Code in the form of the new standards for Woodlot Licences would impose certain use restrictions. The Management and Business plans would provide the management and financial implications of the restrictions enacted.

11. Operational Stipulations - The community forest would have to meet existing provincial and federal requirements. The pilot study applicant communities are required to submit management and business plans and establish annual and independent management and business auditing procedures. The FPC, as per the new standards for Woodlot Licences will define the code requirements of the forestry.

Community forest tenures would be negotiated between the municipality and the provincial government with third party input being provided by First Nations and other stakeholders. The individual land bases involved would be relatively small with respect to current tenures and community involvement would automatically incorporate a wide variety of public concerns with the potential to avoid negative conflict regarding land designation and use.

While the present community forest pilot study is a good concept, the implementation of it is flawed. The time limit is too short for many communities to put together quality proposals and this favours those communities with more money and who may already have studies completed (some funded by FRBC). This creates obvious inequities for a provincial policy and the deadline should be extended a minimum of three months.

The small number of pilot studies is also limiting, if there is volume available and the proposals

are of a high quality, it seems ridiculous to limit the number of successful applicants. Consideration to expand the number of pilot studies not only awarded early next year but also annually over the next five years should be seriously considered.

The incorporation of botanical forest products is a serious concern and inadequate consideration has been given to the concerns of First Nations. This appears to contravene the Convention of Biodiversity and the researcher is aware of First Nations taking steps to protest this aspect of the community forest tenure.

The local government or collaborative (municipality using a corporation) models of governance in the pilot study are recommended as they offer the highest degree of political and financial accountability, acceptability and are the least exclusionary.

Community forestry does not have a long history in Canada and is not part of our cultural make-up as it is in the other parts of the world such as the Nordic countries and Germany. This may be an important factor to keep in mind, as community forest tenures can be designed to facilitate the establishment of community forests but community culture supportive of the concept will play a critical role in the success of the new tenures. Relatively recent (compared to Europe) established community forests in North Cowichan, Mission and Revelstoke suggest that a supportive culture can develop quickly. What is important to remember is that culture will play an important role in contributing to the performance of any new community forest tenures.

CHAPTER VII.

SUMMARY AND CONCLUSIONS

THESIS SUMMARY

Community forestry is centred around the concepts of local control and decision making, and has the potential to offer community members a greater degree of effective participation in forestry planning and management of the surrounding forest lands. Community forestry is not a new concept and has been practised in numerous countries around the world for time periods that extend in many cases to centuries. While it is not a guaranteed method of ensuring greater community participation and more sustainable forestry, it is one of the vehicles that could be employed to pursue this end.

The thesis suggests that community forestry's time has finally 'come' to British Columbia. This development has arisen from the convergence of a number of events including: repeated recommendations from forest commissions; international and national sustainability conferences and published works; international market pressure and certification efforts; growing awareness about the importance of establishing sustainable forestry; and the need to support community social, economic and environmental objectives.

The existing tenure arrangements in British Columbia have an industrial and timber management focus, with the tenure forms evolving over the last century and attempting to address a number of governance goals over that period. The current tenures, including the TFL, FI and WL do not meet community needs and there is evidence that within the community forestry context, the existing tenures:

- fail to provide adequate incentives for optimal forest management to address community concerns;
- fail to provide, or at times even provide for, the adequate management of a suite of timber and non-timber values;
- do not allow for the development and pursuit of locally defined management objectives;
- centralized forest management decision making leads to alienation of local interests, a general discouragement of local initiatives, and lack of accountability.

There are two options available to address community forestry, either creatively utilize an existing tenure or design tenures specifically for community forestry. These options have once again generated significant public interest, and indeed the last four forestry commissions in BC have all recommended the establishment of community forestry tenures recognizing that tenures could be designed to more efficiently address the concerns of communities which can vary from those of industry.

There is a challenge though in designing a new tenure(s) or modifying an existing one(s) to more effectively address community needs as opposed to those of industry. This challenge originates in the inherent complexity of understanding community. The thesis attempts to examine the interrelationships between the value laden terms of community, culture and conflict and how these influence planning. There is a growing level of interest in planning control at the regional or community level and this is occurring at the same time that globalization of the forest and other industrial and commercial sectors is increasing.

This increasing interest in local or regional control might be driven by a growing sense for a need for identity in a world in which distances and differences are becoming increasingly blurred. This blurring or confusion is something which some sociologists and planners suggest is a reaction to the deconstruction of the sense of community (*Gemeinschaft*). This is being replaced through the process of modernity with *Gesellschaft* (association or society) with its overwhelming and non-satisfactory aspects of increased bureaucracy, a sense of lack of control and non-traditional and unfamiliar aspects of an increasingly global society, in which the local needs and desires of communities are not perceived to be met.

Community is a concept that receives a lot of public and academic attention, and is a term with significant symbolic value. The symbols serve as foci of attention and the community awareness or consciousness is maintained through the collective or common symbolism. Communities can be examined by examining the boundary which serves to delineate membership and geographical area. The

provincial survey strongly supported this theoretical boundary role, with communities identifying themselves by residential population, culture, physical features and economic activities - all delimiting aspects.

Members of the UBCM already have legally defined municipal boundaries but the area or region that the community residents primarily interact with is best defined by them and incorporated into delineating a proposed community forest area. This suggests an area based tenure with criteria responsive to community needs and goals - something which existing tenures do not incorporate. The award of a land base for a community forest would be negotiated with the government through the Ministry of Forests and would focus on meeting the community needs as identified through a local planning process.

Planning is a multi-dimensional discipline, in which sociological, economic and environmental concerns are ideally all considered in a reasoned and balanced fashion. Forestry planning is particularly challenging given the long time horizons, multiple use, economic and employment concerns that have to be addressed. There was a strong indication from the surveys that there was either sufficient local expertise to effectively address planning or a willingness to bring in skills and experience where it was lacking. Community planning of the surrounding forest lands, and the establishment of community forests would assist in promoting greater public input and the incorporation of local knowledge and experience than occurs under current tenures - this was an important lesson learnt from the Ontario Community Forest Pilot Project.

Community forestry can occur in a wide spectrum of forms, a brief international review was undertaken with a particular emphasis on Sweden (due to social and economic similarities to Canada) to determine how the community owned/controlled forests are managed there and what might be transferable to Canada. The flexibility of community forestry to address a number of current community and forestry planning concerns was discussed and the importance of culture and the relationship between people and the forest was raised - an aspect which might provide an obstacle in BC, in which there is not

as long or interactive a history between the settlers and the forests.

A focussing from the international perspective to the national was conducted through a Canada wide survey to determine the levels of interest and awareness in community forestry. This survey received a 100% response rate and indicated that community forestry is actively being pursued in BC, Alberta, Saskatchewan, Ontario, Quebec, and the Northwest Territories.

British Columbia has awarded a limited number of Forest Licences to communities and received 27 formal proposals from communities to participate in the community forest pilot projects under the Jobs and Timber Accord, with seven pilots being awarded at this time. The refusal of the government to provide community forestry extension is a serious flaw in their policy and does not meet a stated community need that the survey of this work clearly demonstrates.

Alberta is currently investigating how to increase community input into the allocation of local wood supplies while Saskatchewan's new Forest Resources Management Act contains provisions that allow for the creation of community forests.

In Ontario, four provincial community pilot projects were established in a 1991 pilot study. This was a policy experimentation initiative to explore improving forest management and increase the role of people in forest development. Wikwemikong run community forest is the only one still active and significantly this was the only pilots study to have tenure control over some forested land. The Ontario government claim five lessons from the pilot studies: 1) the importance of local buy-in; 2) the importance of freedom to manage financial affairs independent of the provincial government; 3) how difficult it was to wean the pilot projects off government funding; 4) the importance of the relationship between local public input and forest management decision making using Decision Support Systems (DSS); and finally 5) Community forestry is an evolutionary process and there can be no sudden transition to a number of community operations. The failure to assign tenure to all of the community forest pilots seriously undermined the longevity of the project. Community forestry is centred around local control and local

decision making, and without tenure control, the communities influence over forestry was seriously handicapped.

In Quebec, there has been a long history (beginning in 1911) of cooperative forests and municipal involvement in forestry. There is currently underway the 'Inhabited Forests' initiative with one of the forest production units being a Municipal Forest tenure with an area of 1,000 - 50,000 ha of Crown land situated in or near a community. Finally, in the Northwest Territories, there is draft forest management policy that addresses the issue of community forests through community forest management plans that deal specifically with the forested areas around communities and address the local or community needs and concerns.

The thesis then investigates the potential for community forestry to serve as an integrated planning tool and how it might be able to assist in establishing more sustainable forestry. It is argued that common property has a proven record of more successes than failures and as such it or a variant of common property, such as municipally controlled forests, offers some promise as a potentially effective property rights vehicle to achieve more sustainable forestry while at the same time more effectively addressing the needs and desires of the local community.

The Common Property misconception of equating common property to open access is reviewed and it is the effective management of property rights which underlie the success of common property. The success factors behind international common property management (i.e. how effective the property rights regime is) are discussed. The success rate is improved when the user population is relatively small and lives close to the resource and when supply is moderately scarce compared to demand and subject to multiple uses requiring management and coordination (Bruce and Fortmann 1992). Common property strengths and weaknesses are discussed and while community forestry is suggested as a potential approach to pursue more sustainable forestry and a greater degree of community goals and needs being met, it is not advocated as being either failsafe or a panacea for the challenges currently faced in either

forestry or community planning and management.

Forestry in BC does offer an excellent opportunity to establish a variation of common property management (community forest tenures with the rights formally vested in the community or municipal corporation) as many of the forest dependent communities are small and located close to the resource. The Crown forests are subject to multiple demands, economic timber access is becoming more challenging, and the forests require management and coordination. As such, establishing community forests in a number of locations would permit the concept to be both investigated and evaluated at a local level.

Common property management, of which community forestry is one form, has a greater survival rate if there are clearly defined rules that are enforced, internally adaptive institutional arrangements, an ability to nest into external organizations dealing with the external environment and different decision rules for different challenges or purposes. Common property groups have a greater chance to survive if they are subject to slow and exogenous change (Bruce and Fortmann 1992). Once again this international research suggests that a tenure system designed to support community forestry would facilitate the successful establishment of community forestry in the province.

If community forestry has some theoretical and historical merits for being successfully established in British Columbia, the next step was to determine the levels of awareness and interest for the 170 municipalities who are members of the UBCM. These are incorporated communities and are legally recognized entities with constituencies and specified geographic areas. This selection of this study population afforded the researcher an opportunity to constrain the research not only in terms of community definition but also in terms of time and space. The very successful response rate of 62.6% to the mail-out survey reflected the high level of community cooperation and interest in the research.

The average level of awareness of the concept of community forestry throughout the communities was 4.87 out of a scale of 7 (1 is low, 7 is high). The modal average was 7 and the average median value

was 5 indicating that the scores were skewed to the left or low side of the scale. Surprisingly there were no statistical differences between the communities in their level of awareness - prior to the survey the researcher assumed that the more rural (and more forestry involved) communities would have greater levels of awareness. The government (53.8%) was the most common source of information on community forestry to the communities with word of mouth (46.2%) and report/studies (42.3%) being the next most important.

The average level of understanding of the concept was 4.47 out of a scale of 7 (1 is low, 7 is high). The modal value was 5, with the median also being 5 - once again indicating a skew to the left or low side - though to a lesser degree than occurred for awareness. The level of understanding is below the level of awareness (.2 points lower) which is what one would intuitively expect. Once again, there were no statistically significant differences between the levels of community type understanding and prior to the survey the researcher had assumed that the more rural communities would indicated the highest understanding levels.

Similar sources of information (as for awareness) exist for the level of understanding of community forestry. The government (53.0%) was the most common source of information on community forestry to the communities with word of mouth (45.0%) and report/studies (42.0%) being the next most important.

In terms of communities increasing their awareness of community forestry, a very strong average interest rate of 87.5% was obtained in the mail-out survey, with 81.6% (Districts) being the lowest rate and 100% (Towns) the highest. There were no statistical differences in the community type levels of interest in increasing their awareness of community forestry. This was again unexpected as prior to the survey the researcher has assumed that the more rural and forestry dependent communities would have a higher rate.

The preferred means to increase this awareness and understanding is by means of reports or

studies with this being the preferred medium for all the communities and receiving an average score of 75.0%. The second most popular medium was a conference with an average score of 48.0%. The conference was either the second or third most preferred means of increasing the level of understanding of community forestry for all the community types. The third most popular medium was the government with an overall average of 42.0%. This was consistently one of the more popular media for all communities with the exception of towns - though this was a small sample size.

The personal interviews indicated that communities defined community with people, geography and activities as the three major themes. These themes were all defined by boundaries (voters, physical barriers, economic or recreational areas) which reflects the theoretical importance of boundaries in community.

Forestry was recognized primarily for its economic importance and secondarily for its environmental impacts and sustainability. Community forestry was defined by the communities as community participation in decision making in a working (not park or set aside) forest, and peri-urban or presently non-accessible and contentious forested areas could potentially be effectively managed by communities.

Community forestry was considered by 80% of the communities who were interviewed to be an effective way to address community concerns such as employment, economic stability, and provincial government downloading and transfer cuts. A similar percentage of communities believed that they had the ability to manage a community forest. Community advantages in local forest management centred around the nearby forest base and local residents' experience in the industry. Disadvantages included land availability and resources in staff and finances.

The focus groups also stated the importance of people, place and activities as defining aspects of community. Forestry was cited as both a contributor to and solver of the challenges that communities face, including jobs, economic stability and the provision of services.

Those communities without community forests were uncertain of how to define community forestry due to the high degree of financial and legal uncertainty and the lack of information regarding forest availability. Those communities with community forests had a strong sense of community forestry, believing that it was an area of forest land managed by the community who realized any gains or losses from this land. The community controlled the forest land base, not industry or the government. The community forest was seen as a resource for community goals and the community forests had proven an effective means to increase local stability, create opportunities and jobs and reinvest revenues back into the forest or the community itself.

The focus groups strongly indicated the importance of area-based tenure and all three communities stressed the ideal of having fee-simple land not subject to government regulation and legislation. There was a strongly held belief that the communities are capable of making the trade-offs involved in forestry management, and it is the community residents who are best able to discuss and decide on important forest management issues.

This suggests that while the TFL offers one means to address community forestry, preferred options include the Crown assigning ownership of the land to the community (highly unlikely given the public acceptance of Crown land ownership) - or as a second option - assigning an area-based tenure with more management flexibility than the current tenures offer.

Given the high levels of awareness and interest in community forestry and argument that on balance, the conceptual strengths may outweigh the weakness, the issue of employing new or old tenure systems to facilitate community forestry in British Columbia. While there are advantages to utilizing or adapting existing policies for reasons of financial and time savings and an existing familiarity with the policies, there are concerns about poorly monitored policies and a reluctance to admit earlier failures in policy development. A new set of policies involving tenure could be used on a small and time limited scale to permit policy experimentation. New tenures with their greater flexibility might also afford an

opportunity to avoid earlier tenure failures such as inadequate silviculture and consideration of community needs.

To this end, Dunster's twelve principles for establishing a community forest were reviewed and evaluated as to how these could apply to a community forest tenure in British Columbia. These principles still appear to hold and are supported by current literature, existing community forests or pending community forest proposals and results from the thesis surveys which indicated that many of the principles were community concerns or intentions.

Finally the thesis suggests a number of variations of proposed community tenures that are pragmatic rather than visionary and achieve the necessary objectives with the minimum of cost and effort to address the shortcomings of the status quo. It was proposed that any new community forest tenures be flexible to address the varying community goals and needs. The tenures are designed around Dunster's (1989) twelve principles of a community forest and each tenure is broken down into the eleven tenure elements suggested by Haley and Luckert (1990).

The local government or collaborative (municipal owned or controlled corporation) model of governance is recommended as these offer the highest degree of political and financial accountability, the greatest acceptability and are the least exclusionary.

The tenures would share five common characteristics: 1) tenure duration with 99 year terms and ten year evergreen replacement clauses; 2) transferable only to an other community; 3) area based allotment; 4) security provided by the 99 year term and evergreen replacement clause and any expropriation or deletion subject to similar compensation currently available to industry; and 5) operational control would be laid out in community forest management and business plans and would be subject to the same regulatory requirements as Woodlot licences. One difference would be no cut control to permit more effective market logging.

The remaining six tenure characteristics would be variable, and would include: 6) a size

specification which would permit a sufficiently large enough area based tenure to allow for a profitable enterprise and effectively address community goals and needs; 7) comprehensiveness that for a variety of planning, constitutional and regulatory reasons would be limited at this time to timber, recreation and commercial tourism - with botanical forest products added if an acceptable agreement was reached with First nations; 8) the right of the tenure holder to economic benefits could be maximized by sealed bids for work, sealed bids or log yards for timber sales, log exports being permitted and a variety of stumpage or alternative government revenue schemes that would be negotiated; 9) exclusiveness would be challenging but could apply to botanical forest products, tourism and fish and wildlife harvesting; use restrictions could be applied though zoning and the Forest Practices Code (as applied to Woodlots) would certainly impose some restrictions; and 11) operational stipulations would require the community forests to have to meet existing provincial and federal forestry requirements, with a modified Forest Practices Code (similar to the new standards for woodlots) applied.

The land base area involved would be small relative to the entire provincial area and may not reduce the accessible forest land base but in fact increase it by allowing communities to control access and use of the forest in the contentious high use and peri-urban areas. This could result in an increase to the potential harvestable area and volume of the commercial forest land base in the province.

The ongoing success of the existing community forests, and strong desire from the majority of communities for community forests utilizing special community forest tenures, supports the contention that community forestry as a concept has come of age within the province and offers a publicly accepted approach in addressing ongoing and future community and forestry management challenges.

There is not a long history in Canada of community forestry. It is not a part of our culture such as it is in Nordic countries like Sweden, or central Europe such as Germany. While we can design community forest tenures to facilitate the establishment of community forests, we should be cognizant of the critical role community culture will play in the success or failure of the new tenures. The recent

successful establishment of community forests in North Cowichan, Mission and Revelstoke suggests that a supportive culture can develop quickly.

The current Community Forest Pilot Project is flawed due to a number of factors, including: 1) limited time to put together difficult forestry proposals; 2) limited number of pilot studies; 3) the incorporation of botanical forest products which has led to a legal challenge from First Nations and appears to contravene the Convention on Biodiversity; 4) the restriction on log exports which limits the ability of the community to maximize the wealth obtained from their community forests; and 5) the refusal by the government to undertake community forestry extension which is much desired and needed as indicated by the thesis surveys.

The pilot project should consider increasing the number of successful pilots awarded. This could be achieved by giving a pilot to every application with available volume and which meets the pilot criteria as well as by holding more Requests for Proposals in subsequent years.

The Ministry of Forests should also establish an extension program. The communities have clearly stated their need and would benefit from having access to more information on community forests and forestry.

RESEARCH CONTRIBUTIONS AND IMPLICATIONS

This thesis work makes a number of contributions to forestry policy research. It seeks to increase the understanding of the challenges that are faced in both community and forestry planning, and how this complexity increases when you attempt to simultaneously address both community and forestry planning.

The research has provided an information basis for future reforms to the crown forest tenure system. It has addressed the strengths and more importantly the weaknesses of the current tenure system and has suggested alternative tenures to address community needs without necessarily reducing the area of operable forest land and potential harvestable volume. There is actually a potential lift to the available

land and standing timber, as previously inaccessible forest areas might become available for community controlled management and harvesting.

The research has increased the level of understanding of sustainable development and sustainable communities. There has been an extensive amount of theoretical work done in this area but a limited amount of it relates to forestry and forest dependent communities. This research suggests a practical means of implementing more sustainable forest management which addresses current community concerns while not necessarily alienating the established forest industry.

The research has provided a body of knowledge that will be transferable to other Canadian provinces and territories - some of which have already expressed interest in this work. Crown land ownership is the dominant ownership in Canada and the tenure approach offered in this research could be transferred in whole or in part to other Crown owned forest land in Canada.

The research will be of some relevance to both less-developed countries as well as to developed countries. This is based on requests to the researcher for community forest papers and to present at international conferences.

LIMITATIONS

This research only involves UBCM members which are incorporated communities. While it is likely that there are similar trends in unincorporated communities, this is information that could be valuable to collect. There are a large number of unincorporated communities in BC.

Similarly, the research did not involve First Nations communities. While there are 196 Indian Bands in the province, these communities are subject to different jurisdiction (falling under federal law on reserve land) and as such to include them would have significantly complicated the research. Other factors such as dramatically lower socio-economic conditions would have also complicated any native-non-native comparisons.

Ideally, the response rate to the provincial survey would have been even higher than 62.8%, but in North America this is a very acceptable response rate and offers strong support for the research conducted. While this is not a census, it is a high enough response rate to make conclusions about the population.

One limitation occurs with community types. The village response rate of five from the population of fourteen does limit the ability to make inferences regarding this community type in cross tabulation statistical work.

Most of the interviews were conducted over the phone and it is better to conduct interviews in person - as this offers an opportunity for the researcher to establish a stronger relationship with the subject and potentially obtain more information. By going to the community, it is also possible for the researcher to observe the community and forestry concerns which provides additional richness to the comments of the interviewed person.

Forestry as a very sensitive political, environmental and socio-economic topic which can lead to hesitation or fear in providing information or data to a researcher. Despite the confidential nature of the mail out surveys and phone interviews, there was at times hesitation to share information and it is not unreasonable to assume from this that some information was not shared at all. Some reticence of focus group members to participate was also observed.

Both quantitative and qualitative data was gathered in this thesis. Researcher subjectivity can play a role in both types, but can be particularly significant in the collection and evaluation of qualitative data and information. This research did follow standard statistical methods to minimise this subjectivity but it certainly still exists to some undeterminable degree.

It would have been profitable to have extended field visits to the three communities with community forests in the province. This would have afforded the researcher to learn more about the operations and their impact/relation with the community, rather than having to rely so heavily on

interviews and literature sources.

There was tremendous difficulty in obtaining information on community forestry in Europe and the New World. Most of the available community forest literature is within the context of international development and as such is limited in application in British Columbia due to the tremendous variety of socio-economic, environmental and political contexts in which that community forestry occurs.

IMPLICATIONS FOR FUTURE RESEARCH

There are a number of research questions raised in this research.

Why do the two territories have different community forest policies? Does this result from a lack of an initiative in the Yukon or is it determined by administrative or political considerations rather than ones of governance?

What volume of timber or forest land area might at the present be inaccessible to forest operations as a result of community or public concern over industrial forest practices? Related to this is the need to determine how the land area required for community forestry might be made available and what amount be involved in future community forestry management. Would this involve reductions to the current tenured areas, accessing SBFEP volume or communities either purchasing existing tenures or entering into partnerships with existing tenure holders? Each approach has its strengths and weaknesses and policy and economic implications.

Another research project would be to obtain a more accurate understanding of what is the scale and scope of community concerns that exist, and how do they envision community forests addressing these concerns. Community forestry is not suggested as being a panacea but rather one tool in a box of a number of potential policy approaches. What might be some other approaches?

What extension vehicles could be devised to assist communities in their investigation and potential pursuit of community forestry? Reports/studies and conferences were cited as the extension

vehicles of choice - what would be the scale and scope of these? What would be the preferred format?

What would be the cost and effort required for successful extension?

What would be good strategies to address the transition from the current tenure system to one in which there was a larger community presence? What would be the positive and negative impacts of this increased community involvement in the forest sector? What would be the potential implications for non-timber products and industry such as tourism? What would be the implications of increased community forestry on parks and protected areas? Are the proposed community forest tenures acceptable to the communities? Are the tenures broad enough in their flexibility, too limited or not radical enough?

Finally there is the question of the First Nations communities. This thesis did not address First Nations and community forestry in an attempt to keep the scope of the research to a more manageable size. Land claims, ongoing treaty negotiations, recent court decisions and First Nations socio-economic development initiatives all point to a desire to increase their level of resource ownership or control. Community forestry is one means for the 196 Bands in BC to achieve this and research has to be conducted to determine what similarities and differences exist from those UBCM (and non-native) communities studied in this thesis.

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APPENDIX A

DETAILS ON EXISTING FOREST AREAS MANAGED BY COMMUNITIES

Source of Reference material

Most of this material was sourced from the Community Forestry Advisory Committee, Background Discussion Paper 1, Draft copy December 1, 1997. There were errors discovered in this draft and they have been corrected. This material was provided to the researcher by Gail Brewer, Ministry of Forests, April 17, 1998.

Community	Status	Size	Tenure	AAC
Alberni Valley	Alberni Valley Demonstration Forest established August 1993	2,800 ha	33% Crown 59% MacMillan Bloedel private land within TFL 44 8% Municipal	

Management Staff

- Demonstration Forest Advisory Group includes representatives from government, municipality, industry, local schools, and many other groups. Technical committees.

Visions/Goals

1. local participation in forest stewardship
2. enhance the genetic structural, and spatial complexity of the forest to foster a biologically diverse forest environment
3. alternative forest management
4. manage for continuous production of forest crops on a commercial basis within the limitations of integrated use
5. maintain forest cover within the city and surrounding areas as a buffer between the city and the industrial forest
6. economic development and diversification
7. retraining the local people
8. recreation
9. generate revenue to support demonstration forest activities

Community	Status	Size	Tenure	AAC
Alexis Creek Band	Tsi Del Enterprises Ltd.	Volume Based	Non-replaceable Forest License 5 year term	60,000

Management Staff

- Tsi Del Enterprises Ltd.

Visions/Goals

- Non specified.

Community	Status	Size	Tenure	AAC
Creston	Forest Licence. Awarded February 1996.	Volume Based.	Non-replaceable Forest licence. 15 year term.	15,000

Management Staff

- Creston Valley Forest Corporation (CVFC) comprised of 6 shareholders (Town of Creston, Regional District of Central Kootenay, Lower Kootenay Band, East Kootenay Environmental Society, Water District and Creston Economic Development Commission).

Visions/Goals

1. involve the community in forest decision-making and management
2. local employment in forestry, harvesting and milling
3. value-added industry
4. ecosystem-based forest stewardship
5. education and training in sustainable forestry
6. water quality, quantity and flow
7. 'green' certification of all harvested timber

Chamber of Commerce, Heritage Ecomuseum and Community Futures).

Visions/Goals

1. job diversification
2. local control over resource
3. keep the local mill running
4. provide jobs and a future for youth in the community

Community Mission	Status	Size	Tenure	AAC
	Tree Farm Licence Established in 1954. [Awarded in 1958.]	10,400 ha (8,000 ha net operable)	TFL 26	41,200

Management Staff

- Forest Department (2 RPFs and 5 staff), responsible to elected council via municipal administrator.
- Public brings comments or concerns to council.
- Self-funding department, optimizing revenue over 5-year cut control cycle.
- Local contractors for harvesting, silviculture, and recreation projects.

Visions/Goals

1. revenue
2. recreational trails, tourism, large-scale green spaces
3. forest education
4. visual aesthetics
5. control of forest management programs, rates and patterns
6. water supply
7. emphasis on sustainable, local employment, seeking value-added prospects.

Community	Status	Size	Tenure	AAC
Mowachaht	Nootka First Nations	Volume-based	Forest Licence	20,000
Muchalaht	Forest Products		Non-replaceable	
First Nations	FL issued 1996			

Management Staff

- Nootka First Nations Forest Products

Visions/Goals

- Non specified

Community	Status	Size	Tenure	AAC
Nemalah Band	Nataswed Enterprises Ltd.	Volume-based.	Forest Licence.	50,000.
	Forest Licence issued 1996.		5 year term, non-replaceable.	

Management Staff

- Nootka First Nations Forest Products.

Visions/Goals

- Non-specified.

Community	Status	Size	Tenure	AAC
North Cowichan	North Cowichan Municipal Forest	4,800 ha	Municipal Lands	23,000.
	Established Forest Reserve in 1946.			

Management Staff

- Forest Advisory Committee (FAC): three elected councillors, three municipal staff, three volunteer, local professional foresters.
- Public interest is represented by the municipal council and administrators.
- Integrated management plan developed by FAC and the municipal forester in 1992.

Visions/Goals

1. green space

2. recreation
3. accessible to public and educational institutions

Community	Status	Size	Tenure	AAC
100 Mile House.	Woodlot licence issued 1988.	400 ha	Woodlot Licence.	870

Management Staff

- Municipal council manages forest according to recommendations of a special committee of council members, Ministry of Forests, and officials from two local forest companies.
- No staff forester, because AAC is low, forest operations are carried out every 2-3 years by contractors.

Visions/Goals

1. timber production revenue
2. demonstration forest
3. recreation
4. habitat conservation

Community	Status	Size	Tenure	AAC
Princeton	Forest Licence. Awarded 1996.	Volume-based.	Forest Licence. 15 years, non-replaceable.	20,000.

Management Staff

- Community forest corporation - planning contracted out to Weyerhaeuser Canada Ltd's Princeton operation.

Visions/Goals

- non specified

Community	Status	Size	Tenure	AAC
Revelstoke	Revelstoke Community Forest Corporation	100,000 ha	Tree Farm Licence 56	98,500

Management Staff

- Management committee provides an advisory network for operation and management.
- Public involvement through regular reports to the city and public information and consultation sessions.
- TFL is managed by an independent company with three representatives from the city and community on its board and an advisory committee which includes representatives from the forest industry and other interests.
- Contract work and purchases of goods and services go up for public tender when possible with preference given to local businesses.

Visions/Goals

1. local control of resources
2. economic security and protection
3. job protection
4. community involvement in decision-making
5. revenue to the community
6. forestry training
7. outdoor recreational activities

Community	Status	Size	Tenure	AAC
Takla Lake Band	Takla Development Corporation	Volume-based	Forest Licence. 8 year term. Non-replaceable.	80,000

Management Staff

- Takla Development Corporation

Visions/Goals

- non specified

Community **Status** **Size** **Tenure** **AAC**
 TI'ast'en Nation Tanizul Timber Limited. 123,300
 TFL awarded 1985. Tree Farm Licence 42

Management Staff

- Tanizul Timber Limited

Visions/Goals

- non specified

Community
 Ulkatcho Band

Status
 Yun Ka Why'Ten Holdings Ltd.

Size
 Volume-based.

Tenure
 Forest Licence.
 5 year term.
 Non-replaceable.

AAC
 140,000.

Management Staff

- Yun Ka Why'Ten Holdings Ltd.

Visions/Goals

- non specified

APPENDIX B

NATIONAL MAIL-OUT SURVEY FORM

**National Survey on Community Forestry
May 15, 1996.**

**Conducted by Paul Mitchell-Banks, UBC PhD Candidate (604) 822-6553
and UBC Professor Dr. David Haley (604) 822-5634
in conjunction with the Union of BC Municipalities**

Purpose of the Survey

This national survey is being conducted to determine the levels of awareness and interest in community forestry across Canada. It is in support of a PhD research project that is investigating Forest Tenure and Community Forestry in British Columbia. This survey is being assisted by the Union of British Columbia Municipalities.

Survey Methodology

Close-ended survey forms with letters of introduction and stamped, self-addressed return envelopes have been mailed out to each relevant Ministry/Department for every province and territory within Canada.

The surveys have been mailed to the Ministry or Department official for each Province or Territory who has been determined (after telephone enquiries) to be the person best able to quickly complete and return the survey. While participants are requested to complete the survey, they are under no obligation to do so. The survey will take approximately 20 minutes to complete. If the survey is completed, it will be assumed that consent has been given.

The completed surveys will be returned to the researcher, who will compile the results and if necessary, contact those who filled out the surveys if there are any questions requiring clarification. Results from the survey will be compiled and a synopsis of the results will be mailed out to all those who completed the survey forms. The synopsis of results will not include any information regarding the identity of those that filled out the surveys.

Results of the Survey

The survey results will be used within the PhD thesis as background information, to explain, what level of awareness and interest in community forestry may exist on a national level.

Definition of Community Forestry

Community forestry is centred around the primary concept of local control and decision making in the management of the forest lands appurtenant to a community. The local involvement by the community members creates a sense of "ownership" or responsibility over the policy and decision making that involves "their" forests.

Community forests can exist under a number of different property rights arrangements, and these can involve various combinations of ownership or control. Private property, leased land, land trusts, tenured land from the crown, land under contract, and other property rights' vehicles can all be utilized to establish community forests.

Community forests exist around the world in a variety of forms, with Finland, Sweden, Norway, Denmark, Holland, Germany, Poland, Japan, India and Sri Lanka being countries with significant numbers of community forests. One community forest in Norway has been in continuous operation for over 1,000 years. British Columbia has three existent community forests located in Revelstoke, Mission and the District of Cowichan. Four Community Forest Pilot Projects are underway in Ontario.

Survey Instructions

Please read the survey questions carefully and completely fill out the form. Please write clearly. If there is not enough space to complete the questions, please attach additional sheets to this survey form.

Please complete these surveys as soon as possible and return them to the researcher in the self-addressed, self-stamped envelope.

The first group of questions asks for some general information about the person completing the survey.

1. Province or Territory _____
2. Ministry or Department _____
3. Name of person completing survey _____
4. Title or position _____
5. Mailing address _____

6. Phone Number _____
7. Fax Number _____
8. Email _____

The second group of questions asks for information about whether there are any government, community or NGO initiatives in researching or establishing community forestry.

1. Is your provincial or territorial government involved in any policy initiatives to facilitate the establishment of community forests?

Examples of this include, but are not limited to:

- Tenure reform to facilitate community forest
- Experimental community forests or forestry tenures
- Studies or commissions on community forestry
- Surveys on community forest interest and awareness
- Symposiums, workshops or conferences on community forestry

Yes ___ No ___

If yes, please refer to next question, if no, please go directly to question 3.

2.If yes, what policy initiatives are being taken? _____

2a. If yes, what is the reason(s) for this initiative? _____

2b. Please provide name, position, phone/fax numbers of contact(s) associated with initiative.

Paul Mitchell-Banks, UBC Forestry PhD Candidate and Union of BC Municipalities

3. If no, what is the reason for this? _____

4. In your province or territory, are any communities or Non Governmental Organizations involved with community forest initiatives?

Examples of this include, but are not limited to:

- Initiatives for tenure reform to facilitate community forest
- Initiatives/applications for community forestry tenures
- Initiatives/applications for experimental community forests
- Studies or commissions on community forestry
- Surveys on community forest interest and awareness
- Symposiums, workshops or conferences on community forestry

Yes ___ No ___

If yes, please refer to next question, if no, please go directly to question 6.

5. If yes, what initiatives are being taken? _____

5a. If yes, what is the reason(s) for this initiative? _____

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5b. Please provide name, position, phone/fax numbers of contact(s) associated with initiative.

6. If no, what is the reason(s) for this? _____

END OF SURVEY

Thank you for taking the time to complete this survey. Please return it in the stamped and addressed envelope to the researcher. You will be provided with a summary of the research results as a means of keeping you aware of the project and thanking you for your contribution.

APPENDIX C.

PROVINCIAL MAIL-OUT SURVEY FORM

**Provincial Survey on Community Forestry
May 27, 1996.**

**Conducted by Paul Mitchell-Banks, UBC PhD Candidate (604) 822-6553
and UBC Professor David Haley (604) 822-5634
in conjunction with the Union of BC Municipalities**

Purpose of the Survey

This provincial survey is being conducted to determine the levels of awareness and interest in community forestry across British Columbia. It is in support of a University of British Columbia PhD research project that is investigating Forestry Tenure and Community Forestry in British Columbia. This survey is being assisted by the Union of British Columbia Municipalities.

Survey Methodology

Close-ended survey forms with letters of introduction and stamped, self-addressed return envelopes have been mailed out to each UBCM member. While participants are requested to complete the survey, they are under no obligation to do so. The survey will take approximately 20 minutes to complete. If the survey is completed, it will be assumed that consent has been given.

The completed surveys will be returned to the researcher, who will compile the results and potentially contact those who filled out the surveys if there are any questions requiring clarification. Results from the surveys will be compiled and a synopsis of the results will be mailed out to all those who completed the survey forms. The synopsis of results will not include any information regarding the identity of those that filled out the surveys.

Results of the Survey

The survey results will be used within the PhD thesis to explain what level of awareness and interest in community forestry may exist on a provincial level. A stratified sample of communities will be selected for open-ended, personal and/or telephone surveys for more detailed information.

Definition of Community Forestry

Community forestry is centred around the primary concept of local control and decision making in the management of the forest lands surrounding a community. The local involvement by the community members creates a sense of "ownership" or responsibility over the policy and decision making that involves "their" forests.

Community forests can exist under a number of different property rights arrangements, and these can involve various combinations of ownership or control. Private property, leased land, land trusts, tenured land from the crown, land under contract, and other property rights' vehicles can all be utilized to establish community forests.

Community forests exist around the world in a variety of forms, with Finland, Sweden, Norway, Denmark, Holland, Germany, Poland, Japan, India and Sri Lanka being countries with significant numbers of community forests. One community forest in Norway has been in continuous operation for over 1,000 years. British Columbia has three existent community forests located in Revelstoke, Mission and the District of Cowichan. Four Community Forest Pilot Projects are underway in Ontario.

Survey Instructions

Please read the survey questions carefully and completely fill out the form. Please write clearly. If there is not enough space to complete the questions, please attach additional sheets to this survey form.

Please complete these surveys as soon as possible and return them to the researcher in the self-addressed, self-stamped envelope.

The first group of questions asks for some general information about the person completing the survey.

1. Community Name _____

2. Name of person completing survey _____

4. Title or position _____

5. Mailing address _____

6. Phone Number _____

7. Fax Number _____

8. Email _____

The second group of questions asks for information about your level of awareness and understanding of community forestry.

Prior to receiving this survey, what was your level of awareness of the concept of community forestry? Please indicate the awareness level (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High.

2. If you were aware of the concept of community forestry, by what means were you made aware of this?

- Newspapers _____
- Magazines _____
- Journals _____
- Reports/Studies _____
- Radio _____
- Television _____
- Conferences _____
- Word of mouth _____
- Government _____
- Other (please specify) _____

3. Prior to receiving this survey, what was your level of understanding of community forestry? Please indicate the understanding level (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High.

4. If you had some understanding of community forestry, by what means did you obtain most of your information?

- Newspapers _____
- Magazines _____
- Journals _____
- Reports/Studies _____
- Radio _____
- Television _____
- Conferences _____
- Word of mouth _____
- Government _____
- Other (please specify) _____

5. Are you interested in increasing your awareness of community forestry?

Yes _____ No _____

6. If no, why are you not interested?

6a. Do not believe in the concept. Please provide reasons. _____

6b. Believe in the concept, but have reservations regarding whether community forestry could be implemented or made to work. Please provide reservations. _____

6c. Currently focusing on other concerns deemed to be more critical. Please specify below

6d. Other _____

7. If you are interested in increasing your awareness of community forestry, by what means would you be most interested in receiving the information?

- Newspapers _____
- Magazines _____
- Journals _____
- Reports/Studies _____
- Radio _____
- Television _____
- Conferences _____
- Word of mouth _____
- Government _____
- Other (please specify) _____

The third group of questions asks for information about your experiences, needs and preferences with respect to direct involvement in forest management.

Survey Definition of Forest Management.

Forest management is defined as land management over a geographical area, that is currently or potentially predominantly occupied by trees. Multiple forest values can be addressed including, but not limited to timber extraction, watershed maintenance, spiritual values, recreation, parks, landscape values, wildlife, biodiversity, existence, option and other values.

1. What has been your municipal government's level of experience with direct involvement in forest management in the forest land surrounding or within an hour's drive of your community? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High.

1a. If there has been no direct involvement, please indicate why this has been the case

- Lack of access to forest land or potential forest land _____
- Legislative Barriers _____
- Lack of resources (staff or finances) _____
- Lack of awareness _____
- Lack of interest _____
- Barriers resulting from existing Ministry of Forests Administration _____
- Other (please specify) _____
- _____
- _____
- _____
- _____

1b. If there has been direct involvement, please indicate what this has involved

- Control or ownership of municipal or crown forest land _____
- Control or ownership of land previously forested _____
- Control or ownership of land that could potentially support a forest _____
- Involvement in the MoF forestry planning process _____
- Involvement in the MoF forestry operations process _____

Other (please specify) _____

1c. If there has been control or ownership of municipal or crown forest land, how has this occurred?

Municipality has a tenure over some crown land _____

Municipality owns some forest land _____

Municipality owns land that either has some forest or could potentially support a forest _____

Other (please specify) _____

1d. If municipality owns land that either had, has or potentially could support a forest, please provide municipal zoning and use details (use, land area, percentage municipal land base). Land use examples include, but are not limited to parks, future development, etc.

1e. If municipality owns land that either had, has or potentially could support a forest, are there any constraints as to the aspirations or intentions of the community for this land?

Yes _____ No _____

1f. If yes, please provide details or reasoning. _____

2. How important would you estimate your community's need for direct involvement in forestry to be? Please indicate the need level (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High.

2a. If there is no need for direct involvement in forestry, please provide details.

Community comfortable with current forestry management _____

Community does not have resources or expertise to engage in direct involvement _____

Community not interested in direct involvement in forest management _____

Other (please specify)

2b. If there is a need for direct involvement, please provide details.

Community not comfortable with current forestry management _____

Community has resources, and wishes to engage in direct involvement _____

Community has no resources but wishes to engage in direct involvement _____

Other (please specify) _____

3. What is your community's level of preference for direct involvement in forest management in the forest land surrounding or within an hour's drive of your community?
(7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High.

3a. If there is no preference for direct involvement in the management of the forest land, please provide details

- Community comfortable with current forestry management _____
- Community does not have resources to engage in direct involvement _____
- Community would prefer not to have direct involvement in forest management _____
- Other (please specify) _____

3b. If there is a preference for direct involvement in the management of the forest land, please provide details

- Community would like to have participation in forestry planning _____
- Community would like to have participation in forest operations decisions _____
- Community would prefer to have direct involvement in forest management _____
- Other (please specify) _____

The fourth group of questions asks for information about whether there are any government, community or NGO initiatives in researching or establishing community forestry.

1. Is your municipal government involved in any policy initiatives to facilitate the establishment of community forests? Examples of this include, but are not limited to:

- Initiatives for tenure reform to facilitate community forest
- Initiatives/applications for community forestry tenures
- Initiatives/applications for experimental community forests
- Studies or commissions on community forestry
- Surveys on community forest interest and awareness
- Symposiums, workshops or conferences on community forestry

Yes _____ No _____

If yes, please refer to next question, if no, please go directly to question 3.

2.If yes, what policy initiatives are being taken? _____

2a. If yes, what is the reason for these initiatives? _____

2b. Please provide name, position, phone/fax numbers of contact(s) associated with initiative.

3. If no, what is the reason for this? _____

4. Are any Non Governmental Organizations in your municipality involved with community forest initiatives? Examples of this include, but are not limited to:

- Initiatives for tenure reform to facilitate community forest
- Initiatives/applications for community forestry tenures
- Initiatives/applications for experimental community forests
- Studies or commissions on community forestry
- Surveys on community forest interest and awareness
- Symposiums, workshops or conferences on community forestry

Yes _____

No _____

If yes, please refer to next question, if no, please go directly to question 6.

5. If yes, what initiatives are being taken? _____

5a. If yes, what is the reason(s) for this initiative? _____

5b. Please provide name, position, phone/fax numbers of contact(s) associated with initiative(s).

6. If no, what is the reason for this? _____

END OF SURVEY

Thank you for taking the time to complete this survey. Please return it in the stamped and addressed envelope to the researcher. You will be provided with a summary of the research results as a means of keeping you aware of the project and thanking you for your contribution.

APPENDIX D.

PERSONAL INTERVIEW DATA

Question One: What was your level of awareness of the concept of community forestry before you received the mail-out survey? (7 = high level, 1 = none).

	<u>Mail-out survey</u>	<u>Personal Interview</u>
Community One	7	1

Note: there appears to have been a misinterpretation of the scale for this question, as the person interviewed is well known to the researcher and is known to be very aware of community forestry.

Community Two	5	6
Community Three	4	4
Community Four	6	5
Community Five	1	1
Community Six	5	5
Community Seven	7	7
Community Eight	5	4
Community Nine	6	5
Community Ten	6	7
Community Eleven	2	1
Community Twelve	6	4
Community Thirteen	2	1
Community Fourteen	4	New Respondent
Community Fifteen	7	6
Community Sixteen	7	7

Note: this awareness is of community forestry in North America only, the person interviewed was very aware of community forestry in Europe.

**Question Two: What is your definition/explanation of a community?
Geographical? Residents of an area? Similar interests?**

Community One	The residents, specifically the tax payers, they are the bottom line payers.
Community Two.	People oriented, people with a common interest.
Community Three	Composite of a number of parts that serve the public needs, including jobs, residences, cultural and leisure/recreational aspects, the environment.
Community Four	Gathering of people, defined by geography.
Community Five	Physical boundaries of the community. Geographical.
Community Six	Historical, community of similar interests, especially work.
Community Seven	Community made up of diverse groups. Main economic basis being the forest industry.
Community Eight	Great difficulty defining - community is based on social basis, biological, grouping of people with common interest, ex. employment, social.

Community Nine	Variety of interests that benefit the individual and the whole.
Community Ten	A public psyche. Takes on personification of an entity, made by sense of purpose - without a singular sense of purpose, you do not have a community.
Community Eleven	People living within a geographic area. Not grouping of people by any personal/employment characteristics - purely geographic.
Community Twelve	Group of people geographically connected, or connected by issues or passion.
Community Thirteen	Area where people live, together have common goals, needs and interests, ex., services, recreation, social. Significant number of people with community infrastructure.
Community Fourteen	People working together. Settlement of people with industry. Working together with addressing all concerns, including industry and environment.
Community Fifteen	Group of people in a similar geographic area with geography or interests in common.
Community Sixteen	Group of persons living in the same geographic area sharing common infrastructure (recreation, employment and retail).

Question Three: What is your definition/explanation of forestry?

Community One	Major industry in the province that has to be kept sustainable and produce sustainable jobs.
Community Two	Growing, tending, harvesting of trees. Protection and enhancement. Realization of profits.
Community Three	In this province, the focus is on trees grown for commercial purposes or protecting values for the public good.
Community Four	All encompassing, industrial and environmental. Industry has the highest profile, but forestry goes beyond that and addresses aesthetic and recreation concerns.
Community Five	Protection and propagation, community not involved in harvesting, therefore not an issue.
Community Six	Farming trees. Looking at the land base.
Community Seven	Forestry is the growing, maintenance and harvesting of trees.
Community Eight	Management of forest land base, includes silviculture, harvesting, 'the whole bit'.
Community Nine	Applied to the use of a forest.
Community Ten	Resource exploitation. Responsible resource extraction.
Community Eleven	Farming, limited to trees.
Community Twelve	The management and removal of trees for commercial purposes.
Community Thirteen	Management of resource that involves trees. Management is harvesting, replanting, maintaining an ongoing ability to produce trees. Trees are perpetuated.
Community Fourteen	Trees that are for the necessity of a clean, healthy environment, income source through industry, silviculture, maintaining forests and watersheds, replacing forest taken away. Responsible acts from industry, rules and regulations from governments.

- Community Fifteen Previously I would have said the husbandry of softwoods. Now far more encompassing. Encompasses the understanding of ecosystems, hydrology of the land, not just the planting and cutting down of trees. It is the study of forests.
- Community Sixteen Harvesting of a potentially (should be) renewable resource. Not a lot of value added industry to date.

Question Four: What is your definition/explanation of community forestry?

- Community One Community jobs - chance for community to take advantage of the resource to produce sustainable jobs.
- Community Two Area of productive forest set aside where a public process directs the harvesting and maintenance, with the gains spread throughout the community.
- Community Three Activity that tries to maintain a vegetative presence as part of our overall well-being for the community. Community with no forestry presence is a lesser community. The community must go beyond the municipal boundaries in terms of concern for what happens there and where the community residents work.
- Community Four Forestry that has some implications to community economic, social, recreation and environmental interests.
- Community Five Driven by geography, in urban area this means to protect/enhance green areas. There are more trees in the community now than there were 40 years ago.
- Community Six Community working with local forest companies to sustain the forest, jobs and base to make a viable community.
- Community Seven Community as a whole being involved in the whole process of forestry.
- Community Eight Forestry that is community based or oriented with respect to harvesting or management.
- Community Nine One of the principles of the use of a forest.
- Community Ten Plans and comment prior to decision making. Community has to be involved.
- Community Eleven Evolves from the concept where the community takes responsibility for its own environment, which is the physical area surrounding the community, with impacts managed with respect to water, safety, and visual concerns.
- Community Twelve Where a community manages a particular site for long term sustainability of the forest, ex. Merv Wilkinson.
- Community Thirteen Community/local government takes advantage of the local resource near them to manage and create community benefits such as financial and educational.
- Community Fourteen A community takes part, direct play, in the management of the forest. Community management of silviculture with local crews. Not parks.
- Community Fifteen Maintaining the biophysical inventory of the lands, extension and education with forest as a living classroom, development of maps and trails. Some harvesting. Improvement of land, local employment, economic stability.
- Community Sixteen Where benefits from forestry are focussed on the community(s) closest to the resource.

Question Five: What was your level of understanding of community forestry before you received the mail-out survey? Please indicate the awareness level (7 = high level, 1 = none).

	<u>Mail-out survey</u>	<u>Personal Interview</u>
Community One	7	7
Community Two	6	4
Community Three	3	3
Community Four	6	5
Community Five	1	1
Community Six	5	5
Community Seven	6	6
Community Eight	5	3
Community Nine	3	5
Community Ten	6	7
Community Eleven	2	7
Community Twelve	6	3
Community Thirteen	1	1
Community Fourteen	4	New Respondent.
Community Fifteen	7	5
Community Sixteen	5	3

Note: the respondent from this community indicated that his understanding of community forestry had increased not only as a result of the mail-out survey, but also from community forest activities and meetings that had occurred in the province since the mail-out survey was conducted.

**Question Six: What are the main concerns and considerations facing your community at this time?
1. Sociological, 2. Economic, 3. Environmental, 4. Governance?**

Community One	Economics - the increased costs of policing will be a significant challenge for the community. Down loading of responsibilities from the provincial government and decreased transfer payments.
Community Two	1. Economic - jobs, particularly for young people. 2. Sociological - statistically in line with other communities, with respect to street people, affordable housing, etc. 3. Environmental - protection of watersheds for safe drinking water, previously air quality and mill emissions. 4. Governance - down loading of responsibilities and reduction in transfer payments.
Community Three	Sensitive integration of rapid growth with related transport and environmental issues. Growth due to the area's desirable qualities, so it is important to maintain these. Economic concerns regarding seasonal nature of agriculture and tourism. Governance - working towards a regional growth strategy, the community is a central employer with surrounding bedroom communities. Challenges of dealing with the Agriculture Land Reserve which encompasses much city land. Reduced transfer payments and down loading.
Community Four	Forestry related - sustainability of forests for industry within the community.

	<p>A woodlot has been encouraged within the municipal boundary on private lands. Community has stable, established non-forest industry, so less appreciation of forest industry than other communities in area. Municipal transfers a concern. Victoria represents the Lower Mainland, whereas many northern communities feel more aligned with Alberta. Real alienation from Victoria. The government is pandering to environmentalists. Proponents are in a rubber room with government. Frustration with Ministry of Forests regarding lack of direction or approach regarding planning - there is no vision. The public planning process is new to MoF and MELP, but well established within communities and the Ministry of Municipal Affairs. 'Paranoia' in MoF/MELP regarding discussion or inclusion of the public - but they do not know who the public are.</p>
Community Five	<p>The Official Community Plan took over two and a half years, with multiple meetings with very high public participation. Fundamental view of community as 'stable, secure and healthy living environment'.</p>
Community Six	<p>1. Loss of sawmill and 150 direct jobs. Mill was old and costs too high. 2. Health facility concerns. 3. No environmental concerns. 4. Lack of consultation with municipalities, down loading of responsibilities without funding.</p>
Community Seven	<p>Status of the forestry industry in the area and the employment levels related to forestry, both direct and indirect jobs. Employment has direct social impacts, with higher employment leading to lower social problems.</p>
Community Eight	<p>1. Sociological - ongoing downsizing of the mill, though retirement packages will soften the blow. Youth unemployment, limited economic basis to retain youth. 2. Economic - Wood supply, forest service bureaucracy, Code implementation concerns. Isolated, single industry town. Tourism is picking up. 3. Environmental - mill effluent, controls and abatement, water quality and septic system for housing, need for better water in the future.</p>
Community Nine	<p>Crime and health (air quality) from a Quality of Life Survey. Jobs.</p>
Community Ten	<p>Sustainability of the forest reserve. Independence from the provincial government for the community to make their own decisions.</p>
Community Eleven	<p>Awkward stage. Heritage is resource extraction, but the community has survived the post extraction stage through employment in a nearby heavy industry in a community with lower environmental standards. Quality of life is now a major concern, notwithstanding the tax level and recreational conditions. With increase in recreation, the community has benefitted. The last Official Community Plan was a watershed event with the recognition that there has to be an economic base within the community - as its residents cannot rely on employment in surrounding communities. No rail, and poor highway infrastructure. Strong cultural heritage for community. Need high value-added industry because of transport concerns and lack of land for commercial/industrial siting. Weather and difficulty in getting around community has led to some loss of seniors.</p>
Community Twelve	<p>Environmental - loss of environmentally significant areas, ex. streams, Douglas fir, Arbutus, Garry Oak, riparian impacts and water quality. There are multiple</p>

- communities in the area with varied approaches and management concerns.
- Community Thirteen 1. Unemployment - not high but few jobs for young people. Local industry has downsized and needs 'operators' not 'labourers', nothing to keep young here. Aging population. 2. Lots of social assistance. This area of province has lower cost of living and good recreation, cheaper to live, good climate. 3. Cut back in transfer payments, attempting to replace this revenue without increasing taxes.
- Community Fourteen Biggest challenge is the single industry nature of the community. Attempting to get into forest industry, heavily involved with pursuing silviculture contract work for local residents. Forests already allocated, stressed out community because of nature of current (non-forestry) industry which leads to a turn over in town residents.
- Community Fifteen Lots of room to develop, with approximately one third of the community area developed. Challenges of physical geography. Wealthy residents, vocal community.
- Community Sixteen Economic stability - particularly in the forestry, fishing and tourism sectors. Each of them has experienced economic shocks this year.

Question Seven: What has been your municipal government's level of experience with direct involvement in forest management in the forest land surrounding or within an hour's drive of your community (7 = high level, 1 = none).

	<u>Mail-out survey</u>	<u>Personal Interview</u>
Community One	5	4
Community Two	6	1
	Note: discrepancy represents mail-out result addressing LRMP involvement, whereas personal interview indicates overall involvement in forest management.	
Community Three	5	5
Community Four	6	6
Community Five	1	Not applicable as no available land areas.
Community Six	7	7
Community Seven	5	4
	Note: Involvement in forest plan reviews, watersheds, forest company future plans.	
Community Eight	5	4
Community Nine	3	4
Community Ten	6	5
Community Eleven	5	7
Community Twelve	6	1
	Note: discrepancy results from misinterpretation of the mail-out question. Community has only been involved in forests with Tree Preservation By-Law. Both surveys should have had answer of 1.	
Community Thirteen	6	1

Community Fourteen	4	New Respondent.
Community Fifteen	7	1

Note: the discrepancy results from a re-interpretation of the question. There has been extensive involvement in forestry within the community boundaries, but very little involvement with forestry outside of the community boundaries.

Community Sixteen	3	1
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Question Eight: Would you consider establishing a community forest an effective method to address some of your community concerns?

Community One	Yes. The community has to take advantage of the opportunity that community forestry presents.
Community Two	Yes. One method to address some.
Community Three	Yes. Forum for better planning for multiple use interests. Otherwise on the outside looking in, do not really have a voice in the current planning system. Could protect the interests of the community in forests, especially the aesthetics.
Community Four	Not needed to look at community forestry. Good relationship with industry and involvement in tenure area.
Community Five	Not applicable as no available land areas.
Community Six	Yes.
Community Seven	Yes.
Community Eight	Community forest and production mill with sufficient fibre supply would lead to increased economic control and stability. Scale has to be sustainable and self-sufficient. Have to be careful not to dislocate industry and impact supply.
Community Nine	Yes.
Community Ten	Yes.
Community Eleven	Yes.
Community Twelve	Yes.
Community Thirteen	Yes.
Community Fourteen	Yes - if there would be substantial employment created. Do not need any more parks, etc [non-work generating].
Community Fifteen	No. The timber values are marginal compared to the other forest values.
Community Sixteen	Perhaps. Depends on format. Could be - depends on the impact on the status quo for the forest industry. Do benefits outweigh the costs?

Question Nine: Is your municipality currently capable of pursuing and operating a community forest?

Community One	Yes. There would be some growth pains, but they would be resolved in time.
Community Two	Yes, but not without consulting assistance.
Community Three	Yes, currently have planning and environmental staff, could hire forestry expertise.
Community Four	Yes, could hire staff.

Community Five	Not applicable as no available land areas.
Community Six	Yes.
Community Seven	Yes.
Community Eight	Yes. Technical expertise is here, but need structure in place to act as a catalyst to get going and demonstrate clear economic benefits by following the process. Have a look at the mechanism to restructure tenures to create the land base. Tenure is very complex, but a community forest needs a stable land base.
Community Nine	Today we see the community as a partner, but not running the forest. Other communities see community forestry as a way to increase revenues, therefore in competition with industry.
Community Ten	Yes.
Community Eleven	Yes. Time to transfer responsibility of land would provide adequate time to gear up. Lessons from other fields, in that if you are going to attempt something, set the highest standards.
Community Twelve	Yes, but not with current lack of staff. Human and financial resources issue in beginning. People would have to be hired.
Community Thirteen	Not enough forest resources to hire staff, but partnership or joint venture would permit this. If additional land, and economically feasible, then would pursue and hire staff. Not a lot of available crown land.
Community Fourteen	Yes.
Community Fifteen	Yes.
Community Sixteen	No. Community is currently researching this.

Question Ten: What are the advantages your community have in establishing a community forest?

Community One	None identified other than the commitment of the people involved.
Community Two	None.
Community Three	Area reasonably self-contained with respect to community's interests in forestry.
Community Four	Lots of forest land within municipal boundaries. Involvement in forest planning with industry.
Community Five	Not applicable as no available land areas.
Community Six	Involvement in woodlot gives good understanding.
Community Seven	Viable option to pursue held by a large number of people. Committee in place with different experience and sector representation.
Community Eight	Yes. Forest-based community, many forestry fears found elsewhere do not exist. Higher degree of local expertise and understanding.
Community Nine	Reasonable level of support from council, regional district and industry.
Community Ten	Public awareness and participation. Target would include income generation.
Community Eleven	Council's ability to deal with information and pioneer new projects. Experience of community executive with community forestry in Europe. Community is open to joint ventures/partnerships.
Community Twelve	Probably - as have environmental planner on staff and caring citizenry in community. Commitment to maintaining the area.
Community Thirteen	Perhaps with community holding of forest land and timber potential.

Community Fourteen	Lots of housing available, infrastructure available. Good forest access.
Community Fifteen	Near to market. Partly roaded forests. Forest land base. Some good timber.
Community Sixteen	Lots of trees. Rail/harbour access to markets. Labour force available. Ability to provide services.

Question Eleven: What are the disadvantages/challenges your community faces in establishing a community forest?

Community One	Lack of expertise. Have to hire a consultant - the Board does not have the relative expertise in forestry. Would have to establish the required infrastructure.
Community Two	Physical distance from nearest practical area to establish one. Not within current municipal boundaries.
Community Three	Perhaps access to community.
Community Four	Trying to make it a paying proposition. Municipal expertise is not in commercial enterprise, hence have stayed away from this.
Community Five	Not applicable as no available land areas.
Community Six	Trying to maintain jobs difficult with mill closures.
Community Seven	Land committed in Tree Farm Licences, so difficult to get a land base. Any remaining available land is currently caught up in land claims.
Community Eight	What lands would be included, where would the product go? Is there a sufficient incentive and adequate land base and will to set a community forest up?
Community Nine	Large forest industry and large number of private land holdings.
Community Ten	None.
Community Eleven	Could possibly draw council into unanticipated conflicts. Costs and implications uncertain. Limited staff, tough to gear up in a hurry. Transition, concerns about pace, time limits, NGOs.
Community Twelve	Human resources. Budget. Some people see community forestry as a way to legitimize forestry, so would have to deal with both protectionist groups and developers. Difficulty with highest and best use.
Community Thirteen	Lack of expertise in forestry field, both politically and with staff. Have to hire expertise.
Community Fourteen	Establishing it, as community is experienced in other resource sector. There is a lack of experience.
Community Fifteen	Public outcry against harvesting. Concern even now with salvage of blow over. Steep slopes, low value wood.
Community Sixteen	Difficult to say as uncertain of what impacts there might be, particularly to existing tenure holders.

Question Twelve: Do you believe that there are currently enough community residents with the appropriate levels of forestry education and/or experience to act as community forest board members in overseeing the management of a community forest?

Community One	Yes. There would also be ample time to derive experience.
Community Two	Yes.
Community Three	Yes. Have people in industry, environmental expertise, government offices and educational facility to draw academic expertise.
Community Four	Yes.
Community Five	Not applicable as no available land areas.
Community Six	Yes.
Community Seven	Yes.
Community Eight	Yes. If there were not people locally available, they could be drawn from other areas. There is lots of expertise in the community and any needed expertise could be brought in. There is a possibility of linkage with the Ministry of Forests, but they seem to be overloaded with work. A community organization can have good or bad abilities to make decisions. Would the board be committed to making it economically feasible and astute decisions and not be drawn into side issues?
Community Nine	Yes.
Community Ten	Yes.
Community Eleven	Yes.
Community Twelve	Unknown.
Community Thirteen	Yes.
Community Fourteen	Yes, if it encompasses other players and ministries. Some people with experience. We could use local college staff and local contractors.
Community Fifteen	Yes. Tons.
Community Sixteen	Yes.

Question Thirteen: How important would you estimate your community's need for direct involvement in forestry to be? (7 = high level, 1 = none).

	<u>Mail-out survey</u>	<u>Personal Interview</u>
Community One	No response.	2
Community Two	6	7
Community Three	6	6
Community Four	6	7
Community Five	1	Not applicable as no available land areas.
Community Six	5	7
Community Seven	No response.	7
Community Eight	5	3
Community Nine	5	4
Community Ten	7	7
Community Eleven	7	6

Community Twelve	No response.	4
Community Thirteen	6	3
Community Fourteen	7	New respondent.
Community Fifteen		2

Note: No response in mail-out survey because of difficulty in interpreting the question.

Community Sixteen	7	6
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Question Fourteen: What is your community's level of preference for direct involvement in the forest land surrounding or within an hour's drive of your community? (7 = high level, 1 = none).

	<u>Mail-out survey</u>	<u>Personal Interview</u>
Community One	6	7
Community Two	7	7
Community Three	6	6
Community Four	6	7
Community Five	1	Not applicable as no available land areas.
Community Six	6	7
Community Seven	6	7
Community Eight	4	3
Community Nine	3	5
Community Ten	7	7
Community Eleven	No response	5
Community Twelve	No response.	6.
Community Thirteen	6	3
Community Fourteen	6	New respondent.
Community Fifteen	No response.	2

Note: No response in mail-out survey because of difficulty in interpreting the question.

Community Sixteen	7	4.
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APPENDIX E.

FOCUS GROUP DATA

FOCUS GROUP SERIES 1: COMMUNITIES WITHOUT COMMUNITY FORESTS

Question One: What are the main concerns and considerations facing your community at this time?

1. Sociological, 2. Economic, 3. Environmental, 4. Governance.

Coastal - strong dependency.

First Nations - economics. At the peak of the season there is 65% unemployment. Tried to work with the tenure holders, but unionized people come first - the IWA is a hurdle. There is a 'Blank Wall' with respect to employment with tenure in Traditional Territory. Tenure control and fishing concerns. Problems with surrogate bidding.

All concerns are related. Government policies, Tenures, government uncertainty with respect to policy change such as appraisal and artificial targets - not based on economic facts. Gap between policy and goals being achieved.

Government agendas targeting specific groups, others left out. Growing concern that present government is not representing all of the people. Federal and provincial politics are all party politics. FRBC and target policies, ex. Value added proposals, Traditional Use Studies.

Mill investments range from \$50 million to \$100 million, larger mills are \$250 million to \$1 billion. Investors need security of fibre (tenure) and affordability of fibre. You cannot run on marginal cost.

Politics with fibre supply due to environment, land claims, ownership transfer lead to concerns about access with other owners.

Customers and security of supply to them. You need certainty to make capital investments.

Do we need big mills? Few players and industrial concentration.

Separation of fibre supply and processing. Free market supply. Historically heavily regulated, the reason for tenures has disappeared. Tenures were to create economic opportunities and stability in communities. A Crown asset has become a virtual private asset. Similar to fishing, in which processors have secured the source of major supply.

Trend to smaller, speciality type mills. What is large/small?

Government cannot offer a carrot at one point in time to entice and then take it away - it has to maintain commitment.

Fishing and mill concerns. Importance of industry to tax base. Loss of industry forces community to prioritize. Need for economic diversification, tourism. Community does not have grasp of diversification and employment. Need to develop an economic strategies plan, make some critical decisions and move on.

Interior - strong dependency.

Similar situation to other areas.

Better than any other community in the interior.

Reduction in the AAC.

Beetle kill opportunities.
High First Nations unemployment.
Salvage opportunities.
FRBC and new opportunities.
Should be/expected to be better.
Columbia Basin opportunities.

Interior - low dependency.

Financial and economic viability - this is a bedroom community, reliant on the industry in a nearby community that has had a big reduction in staffing. Try to inject own financial resources. Relatively low industrial tax base.

Viable commercial core, maintain citizens.

Proximity to a larger centre has repressed community development.

Job creation - creation more difficult than gathering information.

Tourism - marginal, not enough high tech industry in the area.

Growth management - bigger increase in property values than nearby community, therefore increased Regional District grab.

Urban growth challenges.

Re-establishing dedicated recreation corridors through private land. Large parcels of private land in the area.

No heavy industry - therefore no pollution.

Question Two: Do you see forestry as contributing to the creation or solving of these concerns and considerations?

Coastal - strong dependency.

Forestry can assist. MoF and FRBC can assist with Value Added, ex. Charcoal Briquettes to Asia. Wood waste and pulp mill waste.

Fibre supply flow to lower mainland, subsidized with stumpage. 250,000 to 300,000 cubic metres, \$7.50 - \$8.00 stumpage credit for transport.

Not true - everyone gets that cost. Allowance for transport of wood to Vancouver. Vancouver tenure holder/Mill in Vancouver.

Should be processing in this community with the cost allowance left.

Dependence on Vancouver log market.

Cost not incurred, so why subsidize the cost if the company is not incurring it?

Stumpage is based on cost estimate to derive fibre. It uses the Vancouver log market.

Could there be other log markets?

Not enough volume for this.

In past, always focussed on the south, communities and values change. Trying to fix coast logging under one set of rules.

Interior - strong dependency.

Forestry can solve.

Jobs-Timber Accord will benefit.

Municipal initiatives.
Increased number of MoF jobs.
Forest Practice Code and strict/lack of flexibility.
FRBC great in theory, but too much bureaucracy.
Code good but needs streamlining.
Striking a balance - driven by public demand.
Problems with law/legislation/bureaucracy. Flexibility needed for forestry.
Large manufacturing in area. Regardless of what happens, forestry will continue to play an important role.

Interior - low dependency.

Forestry can have a major impact: 1) job creation and economic viability; 2) environment, recreation use and timber extraction. It is a bit of a sleeping issue as any mills are located outside of town.

There are value added opportunities.

Increased development pressure would increase attention to forestry.

Question Three What is your definition/explanation of a community? Geographical? Residents of an area? Similar interests? Legal Definition - i.e. voting list?

Coastal - strong dependency.

Transport created this community. Fishing supported it. It is a service centre. Government services have centralized, with services on a regional basis. This is a fishing and transport community. The residents do not look at themselves as a forestry community. 30 - 40 years ago, there was more of a forestry character, with booms, a mill and a beehive. Now, you do not see the logging equipment, there are not as many camps, there are not as many forestry services.

The public are very apathetic with respect to: development plans; Protected Areas Strategy; ENGOs; Other things; Mid-coast LRMP; Green Peace. In nearby communities, the public is much more interested and involved. In a larger community, it is much more structured, doing their thing. Pulp mill people do not connect chips with the forest, some chips come from hundreds of kilometres away.

Out of sight, out of mind. A local chipper would raise the issue.

There is the potential to increase the cut.

Economic diversification has reduced the concern of people.

The Regional District is more aware.

Interior - strong dependency.

Live, work, commute - some degree of stability.

Steady/slow growth. Education in top schools. Top jobs. Not transient. Strong commitment.

Location/climate/jobs.

Resource based - good wages.

Lower Mainland/Okanagan refugees.

Important crossroads.

Incredible change. There were two main groups in the past, with Russians playing an important role.

Commuter shed.

Interior - low dependency.

Community is a group of diverse people with conflicting interests sharing a limited space.

The community is united with respect to outdoor activities and recreation. There are some differences from the nearby community.

Not as homogeneous as a company town - there is a long history.

The evolution of the community has led to its heterogeneity. Transition and flux rather than a staid state.

Community character to adapt to change makes them more willing.

Question Four: What is your definition/explanation of forestry?

Coastal - strong dependency.

Growth and use of timber. Harvesting of timber.

High stumpage rates to pay for mistakes of the past. FRBC is paying for errors of the past and contributing to increased costs the downfall of the local mill.

Pulp-fibre - piling of pulp logs along creeks in past created damage, left non-merchantable.

Today's economy pays for mistakes of past, both for fisherman and loggers.

Use of gravel from streams to make logging roads.

Interior - strong dependency.

Forestry is all encompassing. Very diverse. Sustains us. Lots of people employed in different areas, from harvesting to furniture.

'Birth to death'.

'80 year planting of a garden'.

Local and outside silviculture, quite a mix.

Renewable resource.

Energy in dictates output.

Various opportunities, changing opportunities.

Approach, species, standards - constantly evolving.

Botanical products.

Opportunist industry.

Go below the 2x4, Scandinavia, ex. Jack pine.

Waste wood, chip to 2". Transported to chipper, turn into pulp. Concerns about chipper type and technical concerns.

Private land harvesting.

Interior - low dependency.

Harvesting and management of natural resources for the continuing benefit of all individuals.

Leading industry in BC.

Benefit of all does not have to involve harvesting, some areas you do not harvest.

Question Five: What is your definition/explanation of community forestry?

Coastal - strong dependency.

Concept there but does it exist? Mission, the city manages and people are more involved.

Up north, things happen and people are not aware, therefore no participation. Forestry impacts are not as important.

Certain timber control, channel timber flows.

Nearby Indian village could establish a mill.

Not many trained loggers in the community.

Try to keep employees, contractors local. But under existing policies, sale of business and transfer of contractor obligation.

Interior - strong dependency.

Big idea in the Slokan Valley, pushed by Hammond et al.

Council initiative was made - but told that no wood available. Over commitment and AAC concerns.

Interior - low dependency.

Management and ownership of tenure for a section of treed forest areas around the community and harvested for the benefit of the community.

Biggest concern is that the community forest would be used for preservation.

Some members feel the community should own everything within twenty miles.

The council is more aware of this issue now.

Community has absolute and total control of land within its boundaries for all purposes. Community should be able to manage land at a larger scale. There is an Official Community Plan for this.

Perhaps more tenure than ownership, this might address the fear that the alternative life style people would 'preserve' to the detriment of the community.

Have to define what community is. This is an integral question. Is community forestry only for incorporated communities?

Questions Six: Would you consider establishing a community forest an effective method to address some of your community concerns?

Coastal - strong dependency.

Uncertain, need to explore this. Looked at earlier, done to increase the awareness of local people.

Logging done by local contractors may be more politically acceptable. Could possibly log close to community.

If plan made, approval would sit with the District Manager, even for land within the municipal boundary. Council would be uncomfortable with that.

A previous move was made to pull out the local land base from the provincial forest and there was no response from government.

Interior - strong dependency.

The government has said no wood is available. Local control would lead to better management. How would you deal with local contractors? What about contractor rules? Would government rules and regulations apply?

Interior - low dependency.

Industry feel that there is enough policy, or Acts that control what is done to the land and protects the residents.

Some industrial foresters are not comfortable with the process.

Change in forestry and change in community forestry.

There is a fear that community forestry would decrease the cut available for industry.

Uncertainty over the definition of community forestry that creates fear.

Transfer of authority to manage public lands from the crown to the municipalities.

Municipality has considerable experience in balancing the public interest, better/faster decisions are made locally.

Political process risk. If environmentalists were elected, then nothing would happen in the forest.

Community forest would be managed by a forester and contribute to the economy.

Industrial use is easy to focus on, growth is less so. Dollars are important, and dollars are the driver.

Important to demonstrate that the community forest is part of the municipal revenues.

Cowichan's community forest is managed to meet the public needs more effectively than the companies or government could do.

If people are given the responsibility, then they will react.

There is the potential for small groups to 'preserve' the forest with a NIMBY syndrome.

Lack of the Cowichan experience could lead to parks.

Working forest includes snowsheds, water protection, recreation, etc.

Fear of separation from the provincial government, ex. CORE and government process did not finish. Need for public, has to be an open process. Political nature of decisions. Too much focus on the transition period.

Question Seven: Is your municipality currently capable of pursuing and operating a community forest?

Coastal - strong dependency.

Unknown.

Interior - strong dependency.

Yes - if you can run an airport, then you can run a community forest.

Yes, but would want the community forest by the community, not 200 miles away.

Could use it for green belt areas, economic development, recreation.

Some areas have opportunities, others don't. Tenure reform - needs to be done to fix the situation.

Community would not want to jeopardize jobs if this resulted from establishing a community forest.

Interior - low dependency.

Not capable right now financially. Could be with respect to people resources - there are enough minds.

No trust in what happens in Vancouver. We can look after our own interests better here.

Need a five year plan that meets conflicting needs.

Question Eight: What are the advantages/disadvantages your community have in establishing a community forest?

Coastal - strong dependency.

Strength in port and transport facilities.

Strength in small business, but not heavily committed, currently undercut.

Strength in species mix, with balsam to Japan, and cedar and spruce sent down south.

Weakness in wide diversity of forest profile, with grades, species and size a challenge. Concern regarding enough of any one thing to run the plant. Log trades? Have to start somewhere.

Weakness in that trades are difficult.

Weakness in that on the north coast, there are fewer players. Down south, lots of trade with more players.

Weakness in Value added, small pockets of timber may only create short term employment.

Value added is not the panacea. Very few value added plants in BC. This community may not be ideally located, concern regarding access to markets.

Interior - strong dependency.

Industry cooperation is essential.

Economic stability from long term management.

Community would have a sustained industry.

Interior - low dependency.

Strength in prepared to investigate it and discuss it at length.

Strength in community interest.

Strength in the municipal government - lots of input.

Weakness in the community does not have a fund, seed money is needed.

Weakness with industry hurdles, small community and challenges with industry.

Weakness is that everyone is not geared up to deal with community forestry, and there will be difficulties in convincing people.

Question Nine: What would be some of your community objectives if a community forest were established?

Coastal - strong dependency.

Value added.

Supply services.

Employment.

Demonstration, education, north coast is unique.

Interior - strong dependency.

Partnership with industry.

No hiring of any city employees to cut logs.
Improve the community - use revenue as a fund for the city, ex. Marina, Parks.
Takes a while to generate revenue, takes start up time, which can take at least five years with all the related start up costs.
Community would sell logs, work with MoF, could create substantial work.
Community would end up with a product not just a log. Cants are currently leaving the area.
Jobs should be kept as local as possible. Value added.

Interior - low dependency.

Increase in value added.
Reduce simply logging and hauling the logs away.
Increase the chances of ensuring a viable and diverse forest industry.
Increased long term control.

Question Ten: Do you believe that there are currently enough community residents with the appropriate levels of forestry education and/or experience to act as community forest board members in overseeing the management of a community forest?

Coastal - strong dependency.

Best board members not necessarily those with industry experience, perhaps more in finance and management.

Interior - strong dependency.

Full of forest talent. Could obtain assistance from the local educational institution.

Interior - low dependency.

Yes.

Question Eleven: How important would you estimate your community's need for direct involvement in forestry to be? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

Coastal - strong dependence.

4-5.

Interior - strong dependency.

4. Success to date. Given trends, legislative/provincial rules, 4 would increase.

Interior - low dependency.

Average of approximately 3.7.
Is the community forest for financial benefit or just a break-even operation.

Question Twelve: What is your community's level of preference for direct involvement in the forest land surrounding or within an hour's drive of your community? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

Coastal - strong dependency.

6-7. Years ago, when things were going well, there would have been a lower response. Now higher. Regional management of resources. Community does not see itself as a forestry community. Apathetic involvement. No guarantee of input. If established committee, not certain if interest would be there. Now fewer forestry operators.

Interior - strong dependency.

Based on involvement by input. Open houses, five year development plans. Do not want to tell companies how to do their job. "These things affect us". Civil disobedience affects us all.

Interior - low dependency.

The average is 5.

Question Thirteen: Timber Availability:

- 1. Opinion regarding use of tenures when they expired.**
- 2. Opinion regarding use of SBFEP wood for Community Forest Tenures.**

Coastal - strong dependency.

Fully committed timber. Where does it come from?

Security of tenure and security of existing players.

5% take back. Community forest proposals can create local small business opportunities.

Community forest could be an experimental forest to demonstrate alternative means of fibre extraction, could cooperate with a university.

Whole log chippers, could rethink location and transport of fibre.

Cut boost? What about low site cedar? There is a study underway.

What would be the goals of a licence created for this community? What benefits? How would local utilization and loss of stumpage to Crown be dealt with? Do not want to create situation for Crown to complain. Perhaps could come out of SBFEP? Does not make sense to barge wood to this community when you could simply barge it to Vancouver. There is currently no value added located in the community right now.

Interior - strong dependency.

Board and subbing out.

Volume could be directed to small operations, they could do as they pleased.

Boom sticks.

Small, flexible, community forestry operation, similar to Vernon.

Interior - low dependency.

No interest in a volume base. An area based tenure is the only way to go. This would be the basis of the deal.

As long as the municipality were in control, we could use the SBFEP.
We should be responsible for everything.
All things to all people, chunk of land, not volume.
Fear of small operators to have access and volume. Fear of political flavour to decisions.

FOCUS GROUP SERIES 2: COMMUNITIES ACTIVELY PURSUING A COMMUNITY FOREST

Question One: What are the main concerns and considerations facing your community at this time?
1. Sociological. 2. Economic. 3. Environmental. 4. Governance.

Coastal.

Concern of communities that things will come out from under feet if government and industry continue to rule.

Ecologically and environmentally more important. Concern over long term stability and viability.

If governance goes wrong -

Community is very anti-government. Do not want to take ownership at the community level.

There is a void, no collective voice. Community can not afford to manage their own affairs, consider the hand over of the roads.

The economics is a symptom, and governance is the problem. Chicken and egg, history.

Governance - Federal and Provincial, stems from past decisions, led to a host of problems with respect to availability of wood.

Decisions to log, then deferrals, lead to pressure on the economy, which lead to decisions to log, etc. Deferrals cause an impact, as the companies are not cutting 100% of their volume.

Social impact of forestry with respect to communities. Camp life has high pay, but boom and bust, which can lead to drug alcohol abuse which can impact families. Disenfranchising of boat builders, can lead to unemployment, which can cause impacts.

Mechanization and job loss. Technology.

Auto industry - profits and pressure on costs. Business trend to focus on shareholders and profits.

Forestry is cyclical - business community with closer ties between worker benefits and profit.

IWA executive were bought out, and there is a split within the union. The decrease in size is related to an increase in automation. The environmentalists are blamed for the cuts.

Interior.

Treaty negotiations.

Air-shed quality within the community boundaries.

Job creation.

Quality of life - the local educational institution is doing surveys, and a research institute is being established.

Economic stability - forestry dependent, better than 20 years ago, increased public sector, increased service in the private sector, home based businesses.

Single parent families, teenage pregnancy, high divorce rates, lots of accidents.

Affordable housing.

Large forest companies and belief they will not fail, increased doubt with Evans and REPAP situations. Addition of value added, but some of these have lost their licences to cut. Another in trouble with the bank.

Rivers and water quality. Pulp mill and city effluent has improved, snow melt and urban run off.

Change in municipal transfers.

Cut backs, but still desire to maintain services. Thinking about choices.

Question Two: Do you see forestry as contributing to the creation or solving of these concerns and considerations?

Coastal.

Can not rely just on forestry, not just a problem with forestry.

Industry can contribute to the community.

Widespread.

Change you could make which would have impact.

Dollars are not the solution.

In mining you create a community, have to create an instant community.

In one site here, there is enough timber for 1,000 years.

With resource extraction, you can not just get up and move.

In Europe, post transition from old growth to 2nd growth.

Transition and growing pains. Strategic planning, now critical. How get into second growth and how maintain the old growth?

Second growth has just started to come on line.

Old growth mills will shut down.

Will only solve the problems if the community is involved.

Interior.

Both.

Create jobs, create investment, investment (Maslow's needs).

Air quality and environmental issues. Increased awareness today than previously. Forestry is doing a better job, too much at stake for forestry not to address.

Forestry company financial donations contribute to an increased quality of life.

Business and economic development, but not at the cost of the environment. Appreciation for both sides.

Circle of life must be completed.

Forestry company has come to town, come into community within the last six years.

Increased company and staff awareness about need to donate to the community. Should do it to keep employees. Proof is in the woods. Sustainability.

Escalated tree planting.

Increased public awareness, within the last 6-8 years.

Demonstration forests, model forests, etc.

Company support of Junior Achievement.

Starting with youth.

Question Three What is your definition/explanation of a community? Geographical? Residents of an area? Similar interests? Legal Definition - i.e. voting list?

Coastal.

Community is about people and the area involved. There are sociological, economic, environmental and governance concerns. There are both the collective of communities in the area as well as individual communities. Communities can not simply fall into the legal, municipal type definition.

There is history and the future to consider, community is ongoing, it is about tradition.

Community does not necessarily have to have a common goal. Are logging camps not a community? Why not - culture develops everywhere.

Transient community has no commitment to the location, commitment is to the family back home. "Violent activity" is carried on away from the family.

Community is where the roots are.

Group of people with similar interests leads to a sense of community.

Interior.

Place where you belong, your home.

Place where people want to be.

Community beginning to find its sense of place. Till the end of the 80s, people were transient. They 'did their time' and moved on.

Question Four: What is your definition/explanation of forestry?

Coastal.

Liquidation.

Management and protection and looking after resources.

Interference of natural processes.

For economic means.

Sustainable management of forestry resources for current and future generations.

Complete and utter destruction of ecosystems we have virtually no understanding of and replacement with single canopy and we have very little understanding. Drainage and sub-basin important.

Plan, log and manipulate land base to grow envisioned crop of trees (like Prairie agriculture) - no, could be very different.

Crop - what you pull out of the forest.

Forestry - vital economics, is a planning exercise, social, socio-economics, necessary resource.

Interior.

Managing forest land base for timber production while considering resource impacts on other users.

Distinct from Integrated Resource Management.

Forestry is one component of the larger picture.

Forest is a resource - provides timber, water, wildlife, spiritual and aesthetic needs.

Question Five: What is your definition/explanation of community forestry?

Coastal.

Area of forest land managed by community with benefits or losses accruing to community.

Preferential rates for supply if dollars stay local.

Wood is wood.

"People running the machine, rather than the machine running the people".

If people shareholders, services and employment come back to the community.

Terms of reference, community based, rather than tenure or AAC based. Pace set to community needs.

Interior.

Of people and for the people relative to an integrated use of Crown forest. Community doing it rather than government and industry.

Community is a group of like interests.

Defined forest land area immediately around the community that the community has an interest in managing, not MoF or a corporation. Defined area around community.

Area based form of management.

Questions Six: Would you consider establishing a community forest an effective method to address some of your community concerns?

Coastal.

Yes, rather why bother.

Potential to lose your butt.

If community mill develops, then later becomes competition for industry.

Mill important for stability and infrastructure.

If only feeds industry, then something wrong.

Interior.

Yes. One way, but not the only way.

Forest Practices Code.

Another way, not an end all be all.

Easiest way to address some of the concerns.

Community forest addresses both forest practices and global concerns, fund revenue for sports, controlling destiny.

Community forestry and water quality. Perhaps more important in mountainous areas.

Revenues directed to community needs.

Forests and education of relationship. Increase harvest, then increase revenues, and vice versa.

Trees and trade-offs.

Crown land and municipal land. Green belts.

Question Seven: Is your municipality currently capable of pursuing and operating a community forest?

Coastal.

Time will tell.

Can buy expertise. Hopefully have the knowledge to do that.

Interior.

Yes. Local government, Regional District, other partners.

Question Eight: What are the advantages/disadvantages your community have in establishing a community forest?

Coastal.

Strength in organization of communities.

Strength in high value wood.

Strength in amazing forest.

Strength in people, knowledge, commitment.

Strength in sense of desperation.

Weakness in isolation, economic costs.

Strength in isolation, creates some sense of ownership.

Strength in a day closer sailing time than Vancouver.

Strength in limited population.

Planning, difficult time frames. Flexibility and opportunity to change planning.

Interior.

Strength in having forest based industry.

Strength is community members being educated and experienced.

Strength in funding.

Strength in Industry Outstanding forested land that is close to the community that could be brought into production.

Strength in bringing together various interests/perspectives, existing working relationships.

Weakness in available land outside city, areas committed one way or another. Have work to win support.

Weakness in that private land is fragmenting the forest.

Weakness so much going on that needs a lot of attention to get dollars and commitment of people.

Weakness in that you need dollars to make it happen.

Question Nine: What would be some of your community objectives if a community forest were established?

Coastal.

Jobs, jobs, jobs.

Profit not necessary, meaningful work.
Community to survive, stability. Stability.
Healthy ecosystems that support fisheries, clean water, cultural uses.
Economic base supported.
Can not do one at other expense.
Have to find a way to do forestry.

Interior.

Improved forest stewardship by a committed, long-term workforce.
Increased financial benefits from a range of harvesting, manufacturing, and service industries.
Greater economic diversification and accompanying decrease in community sensitivity (vulnerability) to external forces.
Improved local employment, greater community stability, and increased tax base.
Maintained or improved scenic values.
Enhanced wildlife habitat.
Greater opportunities for recreation and tourism.
More direct public involvement in resource decision-making, leading to greater public satisfaction.
Greater educational opportunities for schools, workers, professionals, and the public.
Tenure and strings.
To benefit community.

Question Ten: Do you believe that there are currently enough community residents with the appropriate levels of forestry education and/or experience to act as community forest board members in overseeing the management of a community forest?

Coastal.

Lots of resources and need for political willingness.

Interior.

Yes.

Question Eleven: How important would you estimate your community's need for direct involvement in forestry to be? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

Coastal.

'8' or higher.

Interior.

5-6. In and around city, but not entire landscape. Quality of life.
Economically not high, but important for other areas.
Recreational use of forest land.

Question Twelve: What is your community's level of preference for direct involvement in the forest land surrounding or within an hour's drive of your community? (7 = high level, 1 = none).

Low 1 2 3 4 5 6 7 High

Coastal.

High.

Preference higher than need.

Further land away is more important than land close.

Spectrum of management options. Plan from ground up, which can lead to a number of options.

Interior.

1 - far away. LRMP, processes, enough already.

6 - outside front door, within sight.

Question Thirteen: Timber Availability:

1. Opinion regarding use of tenures when they expired.

2. Opinion regarding use of SBFEP wood for Community Forest Tenures.

Coastal.

Tenure transfer could lead to net loss.

SBFEP not contributing meaningfully to islands as going off island to highest bidder (Surrogate Bidding).

If community had control of SBFEP, profits go to community and not to shareholders.

TFL provides government revenue.

In the area, small business with no access to SBFEP volume, so hope they can access it now.

Tenure influences behaviour.

Philosophy and business have to meet.

Interior.

Increased AAC under Timber Supply Review for the region and ideally allocated to the community forest.

Timber available for industries, community manages and industry buys.

Industry could bring into production idle pieces of community and crown lands.

Silviculture and harvesting that larger forest companies might not be interested in pursuing.

FOCUS GROUP SERIES 3: COMMUNITIES WITH EXISTING COMMUNITY FORESTS

Question One: What is your definition/explanation of a community? 1. Geographical?

2. Residents of an area? 3. Similar interests? 4. Legal Definition - i.e. voting list?

Community One.

Geographic area that interacts in culture, society, economics, context.

Group of people sharing common values.

Community Two.

Where we live.
Where we get basic amenities.
Geographical and jurisdictional boundaries.
Political.
Number of different communities.
Where you work becomes your community, local purchasing of supplies and services.

Community Three.

Unique - no outlying area, more well defined, should be closer knit.
Climate and geography define quality of life.
Wide choice of activities.

Question Two: What are the main concerns and considerations facing your community at this time? 1. Sociological. 2. Economic. 3. Environmental. 4. Governance.

Community One.

Ability to provide adequate services. Heavy (90%) residential tax base. Attempts to moderate the tax base, hard to re-balance between tax bases.
Growth and demand for services.
Lack of industry and commercial financing, high distances/infrastructure costs.
The TFL restricts roads.
Heavily unionized (forestry). Heavy farming, immigrant mix, urban population influx.
Lots of hobby farms.
Arts community draw - back to the land, active part of the community.
Some people come here for the privacy.

Community Two.

Growth - sheer increase in numbers, different opinions. Vandalism, crime, policing, public health. Management of growth.
Economic stability - where are we going. 10 - 20 years? Still forestry and forestry related operations. With baby boomers, there is a change in policy and decisions. Bedroom communities, urban refugees bring different values.
Environmental - green spaces, recreation, decreased resource use.
Assurance rather than protection, more concerned with lifestyle than environment.

Community Three.

Increased population leads to increase in jobs and opportunities.
Economies of scale, development costs are a big concern in the community.
Industry relocation and job loss.
Economic changes and population changes.

Question Three: What is your definition/explanation of forestry?

Community One.

Previously timber development which created jobs.
Now, not just economic, but also social/cultural resource. Adds an air to the community. For significant part of the community, the forest is part of the community.
'Hiking signs' and public awareness.
Real broad mix of people.
Not resource dependent anymore. Previously much more important in the '80s.

Community Two.

Bread and butter and jam on the table.
\$.63 of every tax dollar paid by major industry, with \$.60 from a single industry.
Concern about long term harvesting rate because of industry reliance, not just for 30 years but for 80 or 100 years.
Most private land, has very high/scary harvest levels, a log is going to industry.
Small lot owners have some of the worst forestry practices.

Community Three.

Mainstay of economy.
Large employer and income generator.
Using land base primarily for fibre production and harvesting and providing for other concerns in the process.
Forest Practices Code and road costs.
Roads open country and other development/people follow roads.

Question Four: Do you see forestry as contributing to the creation or solving of these concerns and considerations?

Community One.

Community forest in 10/15 years may become like a Stanley Park. Public may see it more as a jewel.
Perception of residents as a forest dependent community but this is reducing in time. Forestry is still the prominent industry.

Community Two.

Both.
Forestry with program provides full range of operations in the forest.
Creaming private land creates problems.
Thousands of hectares of managed forest reserve.
Our community forest standards are as high or higher than any other areas.
Other than traditional logging, ex. alternative species, wood processing.

Community Three.

Future depends on AAC, which is under threat by land planning processes.
Value added opportunities not fully capitalized on.
50% of the trucks in the area rely on forestry.
Increase in forestry business.
Community forest has local purchase policy.

Question Five: What is your definition/explanation of community forestry?**Community One.**

The forest is accessible to the community, for those that grow up in the community. The community is lucky to have a community forest for education, kids can see wildlife and experience the woods.

The community forest is for families and individuals.

Development control - Realtors/developers see the community forest as a barrier to development, a 'green belt' but with active forestry. Limit on private development. If property abuts the community forest, the value is increased, as there is no development anticipated.

Concerns from residents not about logging but about urban development.

'Green belt' planning not politically supported, but have the community forest to use as an argument.

Community at local level look at the resource and decide what is best for them to achieve this themselves. Forest is a resource for local goals. If community not in control, they are not achieving their goals as others are doing that.

Might be difficult to establish today because of the political tangle, bureaucracy, ENGOs and large scale projects.

Not just urban immigrants, but also hinterland.

Community Two.

Education, information, frequent reports.

Community takes an active interest and understands what is happening.

"Our communities, our forest, our future".

Green space, economics, jobs, keeping taxes in community, the ability to leave home and be out in the woods in a few minutes.

Community forest manages to positively impact our lifestyle.

Community Three.

Ends as community forest owned by the community, but having to operate under existing legislation of TFL.

Ideally more responsive.

People in community have significant investment in forest and expect return, especially with unpriced values.

Pragmatic rather than philosophical.

Keep jobs and wood in the community.

Questions Six: What have been the positive and negative outcomes of establishing a community forest?

Community One.

Sustainable/sustained jobs and economic development.
Environment - strong reforestation history.
Surpluses to the community.
Social, recreational, educational, safety factors.
Generally area designated for community forest has been beneficial.
Residential development more attractive.
No negative concerns cited.

Community Two.

Earlier there was no specific recognition of benefits, with the revenues going into general revenue. Now intensively managed.
Silviculture, tours, high school use, plantings, take ownership of it.
Change to balance need to manage forest with newcomers who don't need anything done.
Problems with RPFs not speaking out, negative reaction from government and industry.

Community Three.

Commercial activity has stabilized with wood being made available to local operators. If this wood was not available, operators would have cut staff or shut down.
Emphasis on local hiring, which leads to business and financing developments.

Question Seven: What are the disadvantages/advantages your community faces in managing a community forest?

Community One.

Some land swaps.
Volume is large enough to make some changes but cannot change the course of the community.
When managing for peoples' considerations there are limits to the management options.
TFL regulations/policy sets path for management. Operating for long enough to establish patterns, so haven't had to do relationship building.
Forestry decisions are not political, no delegations with concerns.
As long as politicians are not receiving complaints and the forest is not losing money, the politicians do not pay much attention.

Community Two.

Land base, with fee simple have no stumpage.
Proximity to markets, labour, end-users.
Transport.
Exportable timber permit.
Labour, spring planting in March, good competition for work.
Contractors with specialty skills like to work close to home.

Crown land, currently on hold with treaty negotiations.

Community Three.

Expectations of local contractors sometimes a challenge.
Citizenry with respect to big expectations of returns.
Can not just operate awarding work to the lowest bid, need code performance.
Some expect (a very vocal few) wanted forest land to be set aside.
Impacts from local parks.
Local employment.
Cooperation with local industry regarding coordination of work.

Question Eight: What, if any, are some of the limitations of the structure of the community forest?

**1. Tenure. 2. Ownership. 3. Size. 4. Regulations/Legislation.
5. Cut control?**

Community One.

Would prefer to operate with Fee Simple land, this would decrease the useless and redundant legislation (designed for multinationals with no community concerns).
With Crown land a community forest faces a huge stumpage cost.
Size, currently decent, but depends on what you want to do.
To change the destiny of a community, you need a larger volume to control.
Cut control addresses multinational concerns, not necessary with communities.
Politicians -with current government control there is no need at this time to tap into local expertise.
Forester's thought determined by what is good for the community.

Community Two.

We don't fit into other definitions, limits ability to get additional Crown land. Ontario model with Round Tables and consensus decision making. Need for bottom line, self sustainability with respect to timber base and budget.
Would like additional land, but would need additional staff.
Trade-offs need to be made with increased understanding with respect to Crown land and code requirements.
Increase control with the community's responsible forestry would be good for the community and good for the forest.
Interested in increasing the land base, but uncertain of responsibilities, concerns, what would be impacts, bureaucratic concerns.
If you increase the land base, you need to increase the reserve needs if the market drops.
Uncertain about market cycles, community wants to be safe.
What size is enough, bigger is not necessarily better.
Could double the forest from its current size.

Community Three.

Size - would like larger area as costs are higher with Code and wildlife concerns.

Code should be applied to all land, Crown and Private.
Land use planning is a big concern.
Cut control, does not make sense, logging might not make sense economically, so why do it?
Local control of resources.

Question Nine: How do you involve the community in your community forest - does this work?

Community One.

Chamber has helped with forestry week, with trail maps and write ups.
Mountain bikers have been good in trail planning and building assistance.
The five year development plan open houses have very little turnout.
Few industrial properties where a mill could be established.
Bylaws and restrictions.

Community Two.

Public relations with schools, UBC, tours and groups.
Schools in planting groups.
Hiking groups and feedback.
Integrated Resource Management for certain blocks and for the rest of the forest through open houses and questionnaires.
Council members always very approachable, political feedback loop. Quick political feedback loop, very effective, quick, local.
Some surplus back into the community, ex trail, museum, community forest development work.
Ecological reserves.
Celebrate forestry every few years.
Public can speak directly with contractors, develop relationships.
Neighbours phone the community forester to say that there is a skidder running on a Sunday, or for thefts of firewood.

Community Three.

Just like a TFL.
Community Board all local.
Community has control with the board from different sectors.
Open annual meetings, public have access to information.

Question Ten: Is your community forest different from a forest that industry or an individual manages? If so -how?

Community One.

Limited yes, as the TFL operates under the same legislation /regulations as industrial TFLs.
Have done timber development, conservative cut block size, scattered blocks, aggressive reforestation. A modified status quo.
Limited by Douglas fir, needs sunlight in this area, want to avoid species shift.

Emphasis on diversity and structure, smaller blocks, patch cuts.

We want to make money as it is important to community, but no one is watching ROI or profit.

Community Two.

Ownership of land is important..

Community forest revenue is reinvested: 10% into community projects; 20% to buy additional land; 70% against taxes.

Job creation in the mid '80s, the emphasis was on job creation and not efficiency.

Community Three.

Challenge with respect to pulp wood component of timber.

Question Eleven: What would an ideal community forest look like in terms of structure, operations and size?

Community One.

Adequate recreation now. Need real balance between use and degradation.

Resources for the future more important than resources for today.

Plan to acquire park land. Trails in existing TFL are accessible to people who live close to it, but additional land would be purchased for trails for those living further away from the community forest.

Ideally fee simple land.

More community control, with less restrictive legislation.

Add some more land to it to make it more logical and continuous.

Make own investment decisions over rotations, rather than short term tenures.

Community Two.

Land ownership, or alternatively 999 year leases like water boards.

Depends on land capacity to make timber.

Large enough for more steady work, with a full time forestry crew, contractor, and a longer planting program. Need critical mass for intensive silviculture with specialized crews.

Make tradeoffs in recessions between budget/cost efficiency and stabilization.

Self funded silviculture.

Effective and efficient.

Community Three.

Fee simple land.

Tenure and stumpage influence strategies and create constraints.

Depends on goals of community. Protection of view scape, watershed?

Every community is different, need to keep flexibility to permit communities to devise a community forest that meets their needs.

Size and scale can be expanded or contracted, depends on goals.

Nice if surrounding, but not necessary.

Question Twelve: Timber Availability:

1. Opinion regarding use of tenures when they expired?

2. Opinion regarding use of SBFEP wood for Community Forest Tenures?

Community One.

SBFEP objectives not being met or incorrect. If community did manage the SBFEP, it could help small business.

More you knock the underpinnings of existing tenures, the more you scare existing forestry tenure holders.

Cuts in government have made it more difficult to deal with, especially remote government bodies.

Municipal government gives you the largest say and control in your life, but the municipal elections have the lowest turnout.

High turnout for development meetings, but lower for politics.

Community Two.

To take SBFEP away from the contractors and transfer profits to municipalities.

Tenure transfer and 5% take back.

Idea of tenure change is to transfer profits to communities from the province. There has to be an opportunity for both communities and small business opportunities to make profits.

Government is off loading responsibility, something inherently wrong with that.

Community Three.

Tenure - have to pay people out because of investments.

Challenges of lawsuits.

Grounds - government has to have grounds to alter tenures.

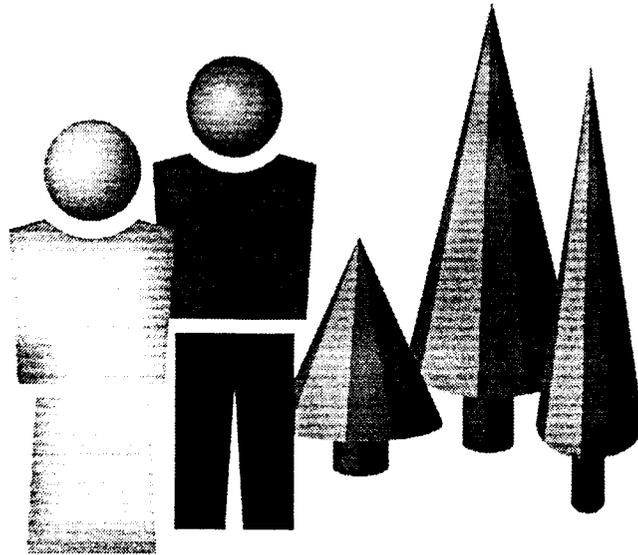
Currently most SBFEP wood stays in the community, industry partners told others to stay away.

APPENDIX F.

***FINAL RECOMMENDATIONS ON ATTRIBUTES OF A COMMUNITY FOREST TENURE -
COMMUNITY FOREST ADVISORY COMMITTEE REPORT***

Community Forest Pilot Project

Final Recommendations on Attributes of a Community Forest Tenure



May 1998

This report sets out the final recommendations of the Community Forest Advisory Committee regarding the attributes of a community forest tenure. If accepted by the minister, these recommendations are expected to guide the development of legislation enabling the piloting of a community forest tenure.





Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
Community Forest Landbase		
Area-based	<p>A community forest will describe a specific area of land to be managed as the community forest. Once established, the community forest will have stable boundaries. The size and location of the community forest will be appropriate to the community's objectives. The community forest may include Crown, municipal, and private lands.</p>	<p>The community forest should be area-based to serve community objectives for maintaining ecosystems, forest stewardship, and long-term resource investment and development. The proposed landbase must be suitable to meet the community's stated objectives.</p>
Contributing lands	<p>Inclusion of municipal and private holdings in community forests is desirable, but should not be a constraint.</p>	<p>It is desirable to allow communities to manage their private holdings as part of the community forest. However, since not all communities have private lands, this should not be a limiting requirement.</p>
Contiguity of area	<p>Contiguity of the community forest landbase may be desirable, but should not be a constraint.</p>	<p>Contiguity of an area is advantageous in terms of costs and forest management, but may not be possible, given past development of areas around communities.</p>
Size	<p>Size will be dictated by community objectives, type of forest, and economic viability.</p>	<p>Size is important if the community forest is to be self-sustaining. Size will vary with community objectives, location in the province, and productivity of the forest landbase. It is not desirable to stipulate size limitations at least during the pilot period.</p>
Proximity to community	<p>Proximity to the community is desirable, but should not be a constraint.</p>	<p>Proximity to the community is desirable for community identification with, use of, and management of the forest. In general, the community forest should be within the timber supply area or, where agreement is reached, the tree farm licence in which the community is located.</p>



Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
Tenure Holder		
<i>Tenure holder characteristics</i>	<p>The community tenure holder (e.g., municipality, First Nation, regional district, community corporation, community society, community cooperative, or combination) will exhibit, but not be limited to, the following characteristics:</p> <ul style="list-style-type: none"> • accountable to the community that it represents • representative of the broad spectrum of interests in the community • democratic • local • financially self-sufficient • ability to undertake the setup costs and the long-term investment required • ability to run like a business • broad-based community support. 	<p>A community is often described by its geographic location and the spectrum of interests represented by the people who live there.</p> <p>Interest in community forestry has been expressed by a broad range of "communities" across British Columbia, which include municipalities, First Nations, unincorporated settlements, and interest groups.</p> <p>Rather than define, and in doing so restrict, the types of communities that might hold a community forest tenure during the pilot stage, the Committee decided that a better approach was to identify the key characteristics that the community forest tenure holder should exhibit.</p> <p>Self-sufficiency means own community financial resources for ongoing management of the community forest but does not preclude opportunities to seek outside funds for specific projects.</p>
Governance models	<p>For the purpose of the pilots, the Committee wishes to test four governance models for tenure holders:</p> <ul style="list-style-type: none"> • local government model (one or combination of regional district, municipality) • collaborative model (e.g., one or more of regional district, municipality, First Nations, in combination with one or more of community society, community cooperative, community corporation) • non-government model (e.g., community society, community cooperative, community corporation) • First Nations. <p>All models must meet all community forest tenure criteria. As a result, there may not be a qualifying governance model in each of the four categories.</p>	<p>The Committee recognized that "communities" wishing to enter into a tenure agreement with government would have to do so through a legal entity. The Committee identified several types of legal entities suited to this purpose so that several governance models could be tested in the pilot process. Each type of legal entity (governance model) would be expected to exhibit the key characteristics identified by the Committee.</p>



Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
Stewardship and Management Rights and Obligations		
Comprehensive resource rights	<p>The rights conveyed under a community forest tenure should include, but not be limited to:</p> <ul style="list-style-type: none"> • harvest and manage existing and future crops of timber • to manage and charge fees for botanical forest products (e.g., mushrooms, salal) • to manage and charge fees for firewood • to manage and charge fees for recreation (e.g., campsites, eco-tourism, trails) • to manage and charge fees for range resources • to develop and charge fees for gravel extraction • to control and charge for access development (right of way) and maintenance (road use charges). <p>In the long term, community forest rights should include rights to manage other forest values including fish, wildlife, and water.</p>	<p>Community forests should convey all property rights within the community forest area, including the right to gain revenue from exercising these property rights.</p> <p>This more comprehensive set of property rights is intended to provide communities with flexibility in achieving more of their social, economic, ecosystem, and forest management objectives (e.g., more diversity in job creation, opportunities for education and forest-based recreation, community watershed protection, training).</p> <p>Further consultation and consideration will be required prior to including rights that come under the jurisdiction of agencies other than ministry of forests (e.g., fish, wildlife, water).</p>
Exclusivity	<p>To the greatest extent possible, rights granted under a community forest tenure shall be exclusive to the community forest tenure holder.</p>	<p>Exclusivity and comprehensive resource rights will contribute to long-term community stability.</p>
Levels of harvest and resource use	<p>The community forest should identify in its "management plan" the long-run sustainable yields, periodic harvests and uses, and any periodic harvest or use constraints for all forest resources on the community forest landbase.</p>	<p>The specification of periodic harvest or use constraints (particularly for timber) in the community forest management plan is intended as a more flexible alternative to cut control for addressing community and ecosystem stability (i.e., stable jobs, steady flow of benefits, healthy ecosystems).</p> <p>A long-run sustainable timber harvest level should be established as a ceiling to safeguard the resource. It should not be a required level of harvest.</p> <p>Communities should have flexibility in deciding on levels of harvest and use to take advantage of market cycles and respect ecosystem and non-timber management objectives.</p>
Forest practices	<p>The community forest should meet or exceed provincial standards for forest practices.</p> <p>Consideration should be given to applying regulatory changes being considered for application on woodlots and possibly on private lands.</p>	<p>The Forest Practices Code should identify minimum standards for community forests.</p> <p>Because the scale and focus of operations on community forests will differ from those of industrial-based tenures, the Code's onerous administrative requirements should not apply.</p>

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Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
Forest Practices Code	<i>The Committee recommends acceptance of the pending woodlot licence forest practices regulation for initial community forest pilots, subject to study associated with potential development of a new regulation for community forests.</i>	Since there was insufficient time to develop a forest practices regulation specific to community forests, the new standards for woodlot licences, which include provisions to ask for variances, were thought to be most applicable.
Responsibilities for fire, insects, and disease	<i>For the purposes of the pilots, the community forest obligations regarding fire, insects, and disease should be the same as for woodlot licences.</i>	Along with comprehensive resource rights go comprehensive stewardship obligations, including protection of forest resources from fire, insects, and disease. The Committee felt that such responsibilities in a community forest should be similar to those for woodlot licences.
Management plan content	<i>It is recommended that the content for Management Plans be detailed in the tenure contract. The management plan will describe the community forest vision, strategic goals and objectives, as well as the activities that will be undertaken to achieve these goals and objectives. Reference will be made to specific commitments made in the licence proposal.</i>	The Committee recognized the need for a guiding document (i.e., a management plan) which would outline the intentions and activities proposed for each community forest. A goal of the pilot stage is to test a range of community management objectives and approaches. Having the management plan as part of the tenure contract provides the greatest flexibility to achieve this because the content requirements can be tailored to each community forest proposal.



Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
Business Management Considerations		
Manufacturing requirements (appurtenancy)	<i>The community forest tenure should not require nor exclude a mill to be owned or operated by the tenure holder.</i>	Flexibility and "freedom to manage" are key principles of community forestry, and considered essential to the community's ability to be self-sustaining. Communities should determine what is to be produced and have rights to independently market products from the community forest.
Other business relationships	<i>Communities should retain the rights to independent marketing, but may give right of first refusal to existing and new local harvesting, silviculture, and processing operations.</i>	Community forests should ideally provide opportunities for local enterprises as a means of supporting local employment. Local firms involved in forest-related business ventures (e.g., harvesting and sale of timber, silviculture contracts, timber processing) may be given right of first refusal on community forest resources and resource development, at a competitive price based on market value of products or services. Appurtenancy or marketing restrictions should be dealt with in individual community forest tenure agreements (most likely through the community forest management plan).
Business plan	<i>It is recommended that there be a legal requirement for a business plan to be submitted as part of an application for a community forest tenure, including community forest tenure pilots.</i>	A business plan will help to ensure that a community has thought through how it will achieve its objectives and meet the terms of the tenure agreement. A business plan should be required as part of the application for a community forest tenure, including the pilots.
Liability and accountability	<i>The community will bear the liability and accountability for operations on the community forest.</i>	Significant responsibilities accompany the rights embodied in a community forest on public land. The community must be both committed to and capable of undertaking the work required in achieving community forest goals, and must also be liable and accountable for its actions.
Monitoring, auditing, and reporting	<i>The Committee recommends that there be a provision included in the legislative content requirements for a community forest pilot agreement respecting the need for monitoring, auditing and reporting. Details will include issues such as timing and responsibility for such activities.</i>	Monitoring, auditing, and reporting are important functions in ensuring that communities act on and achieve their stated management objectives. The audit should be conducted by an independent party (neither community nor government) and consideration should be given to establishing a committee (such as CFAC) to guide the auditors.

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Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
Public Notification, Review, and Involvement		
Advertising	Community forest tenures will not be subject to competitive bidding.	The Committee felt that community forests would always be "demand driven," so there would be no need to advertise. The requirement for a competitive process was viewed as unnecessary, since the intent of a community forest is to broadly represent community interests, and it seemed unlikely that different communities would be competing for the same community forest area.
Public review prior to award of a community forest tenure	Prior to the award of a community forest tenure, the community forest proposal will be subject to a process of public scrutiny similar to those conditions required for Official Community Plans as provided for in the Municipal Act.	The public review process refers to community forest applications prior to award. Some form of public process is necessary to ensure that the community forest proposal represents the interests of the community and to demonstrate that the community is aware of the obligations and risks that accompany the rights conveyed in a community forest tenure.
Public involvement process	There shall be a public involvement process, which parallels the official community plan process, for development and review of the management plan. The requirement for a public involvement process shall be a legislative tenure content requirement of both the pilot and the community forest agreement.	The Committee suggested that the community forest proposal follow the requirements of an Official Community Plan with respect to advertising the process and minutes of public hearing (i.e., a town hall meeting where the plan is available for public scrutiny so that the community understands the commitment and liabilities).

Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
General Tenure Provisions		
Duration and replaceability of tenure	<p>The community forest should be of a long-term duration necessary to:</p> <ul style="list-style-type: none"> • provide enough security to allow investment in timber management activities • provide flexibility for licensee and licensor regarding adjustment to licence agreement <p>The recommended duration of the tenure is in perpetuity, with a mechanism for periodic review to ensure tenure is being managed to achieve community objectives. Review of the terms of the agreement should occur at least every 10 years, or more often as agreed mutually by licensee and licensor.</p>	<p>A long-term tenure is needed to secure long-term investments in timber-growing activities and other initiatives (e.g., access development, recreation sites, other infrastructure). The 25-year term of the TFL (the tenure of longest duration) was considered insufficient to provide security and incentives for long-term planning and investment.</p> <p>The community forest tenure should include a proving process and review before award (e.g., an initial term of 10-15 years followed by a formal review). Replacement at 5-year intervals creates too much uncertainty at the community level; 10 years is better. Government and community could revisit the agreement earlier but it would be required every 10 years.</p>
Probationary period	<p>Recommend that a requirement for a probationary period, which parallels the approach used for the pilots, be included in the legislation as part of the community forest tenure agreement.</p>	<p>The Committee felt that it would take at least five years before an evaluation could be made regarding the extent to which community forest pilots had achieved their objectives. Based on the evaluation of the pilots, a decision would be made whether to grant long-term community forest tenures to the pilot communities, or to extend the pilot period.</p> <p>Assuming that the pilot program is successful, the Committee felt that a similar approach should also be applied in the award of new community forest tenures—i.e., an initial probationary period prior to the award of a long-term tenure.</p>
Fiscal arrangements	<p>For the purpose of the pilots, the current form of stumpage payments shall apply.</p> <p>During the pilot period, alternative arrangements for the division of revenue between Crown and community forest licensees must be studied with a firm objective for implementation.</p>	<p>Because the community forest will be largely based on public land, the community and province should share in revenues generated from the forest. The province should not subsidize community forests. Revenues from community forests should be used to make the community forest self-sustaining.</p> <p>Current fiscal arrangements on forest tenures are associated with the extraction of timber from Crown land. Since community forests are intended to allow for development and use of a broader range of resources than timber, alternatives to current fiscal arrangements (e.g., stumpage, annual rent) need to be examined.</p> <p>The Committee recognized that a change in fiscal arrangements requires broad input and expertise, and has significant implications for the province and the forest industry. To avoid inequitable fiscal treatment across tenure holders, it is felt that this issue must be further examined during the term of the pilots. In the meantime, current fiscal arrangements would have to apply.</p>

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Final recommendations of the Community Forest Advisory Committee on attributes of a community forest tenure

May 1998

Tenure Attribute	CFAC Recommendation	Rationale
<i>Transferability</i>	<i>With the Minister's consent, community forest tenures shall be transferable to other eligible community forest entities within the community. Transfers by themselves shall not cause any reduction in land area, harvest, or use levels (e.g., shall not be subject to the 5% AAC take-back).</i>	<p>Over the long term of the community forest tenure, change is inevitable. The Committee felt it desirable to provide a mechanism for communities to retain the community forest tenure even if some event resulted in the demise of the legal entity holding the tenure.</p> <p>The opportunity for transferability would be limited to another community organization, which would have to undergo the same qualifying process, and meet the same criteria, as the original tenure holder.</p> <p>Transferability will increase the asset value in the eyes of financial institutions from which the community might seek loans and ensure long-term security of investments made by the community.</p>
<i>Log exports</i>	<i>For the purpose of the pilots, there will be no export of logs from British Columbia.</i>	<p>The Committee indicated that allowing the community to export logs would contravene a basic tenet of community forests—the maintenance and creation of local employment.</p>

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APPENDIX G.

**BILL 34 - PROPOSED LEGISLATIVE AMENDMENTS NECESSARY TO IMPLEMENT
AND PILOT COMMUNITY FOREST AGREEMENTS**

**1998 Legislative Session: 3rd Session, 36th Parliament
FIRST READING**

The following electronic version is for informational purposes only.
The printed version remains the official version.

HONOURABLE DAVID ZIRNHELT
MINISTER OF FORESTS

BILL 34 -- 1998

FORESTS STATUTES AMENDMENT ACT, 1998

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:

Forest Act

1 Section 1 (1) of the Forest Act, R.S.B.C. 1996, c. 157, is amended by adding the following definitions:

"**community forest agreement**" means a community forest agreement entered into under Part 3, Division 7.1, and includes a probationary community forest agreement, long-term community forest agreement and community forest pilot agreement;

"**community forest agreement area**" means the area of land subject to a community forest agreement; .

2 Section 8 is repealed and the following substituted:

Allowable annual cut

8 (1) The chief forester must determine an allowable annual cut at least once every 5 years after the date of the last determination, for

(a) the Crown land in each timber supply area, excluding tree farm licence areas, community forest agreement areas and woodlot licence areas, and

(b) each tree farm licence area.

(2) If the minister

(a) makes an order under section 7 (b) respecting a timber supply area, or

(b) amends or enters into a tree farm licence to accomplish a result set out under section 39 (1) (a) to (d),

the chief forester must make an allowable annual cut determination under subsection (1) for the timber supply area or tree farm licence area

(c) within 5 years after the order under paragraph (a) or the amendment or entering into under paragraph (b), and

(d) after the determination under paragraph (c), at least once every 5 years after the date of

the last determination.

(3) If

- (a) the allowable annual cut for the tree farm licence area is reduced under section 9 (3), and
- (b) the chief forester subsequently determines, under subsection (1) of this section, the allowable annual cut for the tree farm licence area.

the chief forester must determine an allowable annual cut at least once every 5 years from the date the allowable annual cut under subsection (1) of this section is effective under section 9 (6).

(4) If the allowable annual cut for the tree farm licence area is reduced under section 9 (3), the chief forester is not required to make the determination under subsection (1) of this section at the times set out in subsection (1) or (2) (c) or (d), but must make that determination within one year after the chief forester determines that the holder is in compliance with section 9 (2).

(5) In determining an allowable annual cut under subsection (1) the chief forester may specify portions of the allowable annual cut attributable to

- (a) different types of timber and terrain in different parts of Crown land within a timber supply area or tree farm licence area,
- (b) different types of timber and terrain in different parts of private land within a tree farm licence area, and
- (c) gains in timber production on Crown land that are attributable to silviculture treatments funded by the government of British Columbia, the federal government, or both.

(6) The regional manager or district manager must determine a volume of timber to be harvested from each woodlot licence area during each year or other period of the term of the woodlot licence, according to the licence.

(7) The regional manager or the regional manager's designate must determine a volume of timber to be harvested from each community forest agreement area during each year or other period, in accordance with

- (a) the community forest agreement, and
- (b) any directions of the chief forester.

(8) In determining an allowable annual cut under subsection (1) the chief forester, despite anything to the contrary in an agreement listed in section 12, must consider

- (a) the rate of timber production that may be sustained on the area, taking into account
 - (i) the composition of the forest and its expected rate of growth on the area,
 - (ii) the expected time that it will take the forest to become re-established on the area following denudation,
 - (iii) silviculture treatments to be applied to the area,
 - (iv) the standard of timber utilization and the allowance for decay, waste and breakage expected to be applied with respect to timber harvesting on the area,
 - (v) the constraints on the amount of timber produced from the area that reasonably

can be expected by use of the area for purposes other than timber production, and

(vi) any other information that, in the chief forester's opinion, relates to the capability of the area to produce timber,

(b) the short and long term implications to British Columbia of alternative rates of timber harvesting from the area,

(c) the nature, production capabilities and timber requirements of established and proposed timber processing facilities,

(d) the economic and social objectives of the government, as expressed by the minister, for the area, for the general region and for British Columbia, and

(e) abnormal infestations in and devastations of, and major salvage programs planned for, timber on the area.

3 Section 10 (1) is amended by adding "community forest agreement area" **after** "not in a tree farm licence area".

4 Section 12 is amended by adding the following paragraph:

(e.1) community forest agreement, .

5 Part 3 is amended by adding the following Division:

Division 7.1 -- Community Forest Agreements

Definitions and interpretation

43.1 In this Division:

"botanical forest product" means a botanical forest product as defined in the *Forest Practices Code of British Columbia Act*;

"community forest pilot agreement" means a community forest pilot agreement entered into under section 43.5;

"long-term community forest agreement" means a long-term community forest agreement entered into under section 43.4;

"probationary community forest agreement" means a probationary community forest agreement entered into under section 43.2.

Applications

43.2 (1) On request or on the minister's own initiative the minister or a person authorized by the minister, by advertising in the prescribed manner, may invite applications for a probationary community forest agreement.

(2) In advertising under subsection (1) the minister or authorized person may describe the area of Crown land that is proposed for the community forest agreement.

(3) The regional manager or the regional manager's designate must not enter into a community forest agreement unless it has been advertised under subsection (1) and a public hearing has been held on the applications.

(4) An application for a community forest agreement must be made to the minister or a person authorized by the minister and must

- (a) be in the form specified by the minister or by a person authorized by the minister,
- (b) if an area of Crown land was not described in the advertising, describe the area of Crown land proposed for inclusion in the community forest agreement area.
- (c) if land, other than Crown land, is proposed for inclusion in the community forest agreement area and the land is
 - (i) in a reserve as defined in the *Indian Act* (Canada), or
 - (ii) other private land

include a description of that land,

- (d) include a business plan prepared in the manner, presented in the format and meeting the specifications required by the minister or a person authorized by the minister,
- (e) include, according to the specifications required by the minister or a person authorized by the minister, a summary of the submissions received in, and the results of, the public review of the application, and
- (f) include other information, prepared in the manner, presented in the format and meeting the specifications required by the minister or a person authorized by the minister.

(5) A community forest agreement must be entered into only with

- (a) a band as defined in the *Indian Act* (Canada),
- (b) a municipality or regional district, or
- (c) any of the following if prescribed requirements are met:
 - (i) a society incorporated under the *Society Act*;
 - (ii) an association as defined in the *Cooperative Association Act*;
 - (iii) a corporation;
 - (iv) a partnership.

(6) After a date specified in the advertising, the minister or the person authorized by the minister

- (a) may reject all of the applications, or
- (b) if all of the applications are not rejected, must
 - (i) convene a public hearing in which any person may make submissions respecting one or more of the applications, and
 - (ii) determine the procedures for the public hearing.

(7) After the public hearing, the minister or a person authorized by the minister must evaluate each application, taking into account its potential for

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- (a) providing long-term opportunities for achieving a range of community objectives, including employment, forest related education and skills training and other social, environmental and economic benefits,
 - (b) balancing uses of forest resources,
 - (c) meeting the objectives of government in respect of environmental stewardship and the management of timber, water, fisheries, wildlife and cultural heritage resources,
 - (d) enhancing the use of and benefits derived from the community forest agreement area,
 - (e) encouraging co-operation among stakeholders,
 - (f) providing social and economic benefits to British Columbia, and
 - (g) other factors that the minister or person authorized by the minister specifies in the advertising.
- (8) After the evaluation under subsection (7), the minister or a person authorized by the minister may
- (a) approve one or more applications,
 - (b) agree with one or more applicants that the community forest agreement will
 - (i) cover a portion of the land that was applied for, and
 - (ii) include other terms and conditions that the minister or a person authorized by the minister considers necessary, or
 - (c) reject any or all applications.
- (9) The regional manager or the regional manager's designate must not enter into a community forest agreement until a management plan is approved by the regional manager or designate for the proposed community forest agreement area.
- (10) Subject to subsections (5) and (9), the regional manager or the regional manager's designate must enter into a probationary community forest agreement with every band, municipality, regional district, society, association, corporation or partnership whose application is approved under subsection (8).

Content of community forest agreement

43.3 A community forest agreement

- (a) must be for a term
 - (i) of 5 years if it is a probationary community forest agreement, or
 - (ii) of not less than 25 years and not more than 99 years if it is a long-term community forest agreement,
- (b) must describe a community forest agreement area, determined by the minister or a person authorized by the minister, comprising Crown land and, if the area so determined includes land that is
 - (i) in a reserve as defined in the *Indian Act* (Canada), or

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- (ii) private land
- also comprising that land,
- (c) subject to this Act and the agreement.
 - (i) must give to its holder the exclusive right to harvest timber on the Crown land referred to in paragraph (b), for the term of the agreement, and
 - (ii) may give to its holder the right to harvest, manage and charge fees for botanical forest products and other prescribed products.
 - (d) must require its holder to pay to the government in addition to other amounts payable under the agreement, this Act and the regulations, stumpage under Part 7 in respect of Crown timber,
 - (e) must provide for cutting permits to be issued by the district manager, or a forest officer authorized by the district manager, within the limits provided in the community forest agreement and subject to this Act and the *Forest Practices Code of British Columbia Act*, to authorize the holder of the community forest agreement to harvest timber from specified areas of land within the community forest agreement area,
 - (f) must require its holder to
 - (i) submit for the approval of the regional manager or the regional manager's designate, at the times specified in the agreement, a management plan that meets the requirements of the community forest agreement, and
 - (ii) implement management plans approved by the regional manager or the regional manager's designate,
 - (g) must require its holder, in accordance with the community forest agreement, to
 - (i) carry out audits and make and submit reports concerning the holder's performance under the agreement, and
 - (ii) make information available to the public and carry out consultation activities with the public concerning matters relating to the community forest agreement, and
 - (h) may include other terms and conditions that the regional manager or regional manager's designate determines are consistent with any proposal made in the application for the community forest agreement, this Act and the regulations, the *Forest Practices Code of British Columbia Act* and the regulations and standards under that Act.

Replacement of probationary and long-term community forest agreements

43.4 (1) The minister or a person authorized by the minister must assess a probationary community forest agreement at the time and in the manner specified in the regulations.

(2) After the assessment, the minister or a person authorized by the minister may

- (a) grant one extension of the term of the probationary community forest agreement for a period not exceeding 5 years,
- (b) offer the holder of the probationary community forest agreement a replacement for the agreement in the form of a long-term community forest agreement, or

(c) refuse to offer to replace the probationary community forest agreement.

(3) If

(a) the minister or person authorized by the minister does not grant an extension of the term of, or offer to replace, a probationary community forest agreement, or

(b) an offer to replace the probationary community forest agreement is not accepted

the probationary community forest agreement continues in force until its term expires, after which it has no further effect.

(4) During the 6 month period following the ninth anniversary of a long-term community forest agreement, the minister or a person authorized by the minister must offer the holder a replacement long-term community forest agreement.

(5) A long-term community forest agreement offered under subsection (2) (b) or (4) must

(a) be for a term of not less than 25 years and not more than 99 years, commencing on

(i) in the case of a long-term agreement offered under subsection (2) (b), the expiry of the probationary community forest agreement, or

(ii) in the case of a long-term agreement offered under subsection (4), the tenth anniversary of the existing long-term community forest agreement,

(b) describe as a community forest agreement area the area subject to the existing community forest agreement and any change to the boundary or area made by the minister or person authorized by the minister under subsection (6), and

(c) include other terms and conditions that are set out in the offer and are consistent with this Act and the regulations, the *Forest Practices Code of British Columbia Act* and the regulations and standards under that Act.

(6) In accordance with the regulations and with the consent of the person to whom a community forest agreement is offered under this section, the minister or a person authorized by the minister, may change the boundary or area in the offered agreement from the boundary or area of the probationary community forest agreement or existing long term community forest agreement, as the case may be.

(7) Notice of an offer made under this section to replace a community forest agreement must be published in the prescribed manner.

(8) An offer made under this section may be

(a) amended, and

(b) accepted by written notice to the minister or a person authorized by the minister, not later than 3 months after the offer is served.

(9) If an offer made under this section is accepted

(a) an agreement in the form of a long-term community forest agreement containing the terms and conditions set out in the offer, including amendments, must be entered into by the regional manager or the regional manager's designate and the holder of the probationary or long-term community forest agreement, and

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(b) the probationary or long-term community forest agreement expires on the commencement of the replacement agreement.

(10) A community forest agreement is not renewable.

Community forest pilot agreement

43.5 (1) The minister may

(a) invite applications for a community forest pilot agreement, and

(b) direct the regional manager or district manager to enter into a community forest pilot agreement with one or more of the applicants for the pilot agreement.

(2) Sections 43.2 and 43.3 (a) do not apply to a community forest pilot agreement.

(3) The term of a community forest pilot agreement must not exceed 5 years.

(4) Section 43.4 applies to a community forest pilot agreement as if the pilot agreement is a probationary community forest agreement.

(5) This section, except subsection (4), is repealed on January 1, 2004.

6 Section 45 (f) (iv), (v) and (vii) is repealed and the following substituted:

(iv) it proposes management objectives, in accordance with the woodlot licence, regarding

(A) utilization of the timber resources in the woodlot licence area,

(B) protection and conservation of the non-timber values and resources in the woodlot licence area,

(C) forest fire prevention and suppression,

(D) forest health, including pest management,

(E) silviculture, and

(F) road construction, maintenance and deactivation,

(v) it includes proposals, in accordance with the woodlot licence, for meeting the proposed management objectives under subparagraph (iv), including measures to be taken and specifications to be followed by the holder of the woodlot licence,

(vii) it includes any other inventories and information regarding the development, management and use of the woodlot licence area that the district manager, in accordance with the woodlot licence, requires, and .

7 The following section is added:

Timber processing facility

46.1 (1) This section applies despite section 44 (6) (a).

(2) The district manager may enter into a woodlot licence with a person, corporation or band that

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owns or leases, or controls a corporation that owns or leases, a timber processing facility in British Columbia if the production capacity of the facility is less than the prescribed production capacity and the person, corporation or band

(a) meets the prescribed requirements, and

(b) complies with any conditions imposed by the district manager.

(3) The district manager may offer a replacement woodlot licence under section 46 to a person, corporation or band that owns or leases, or controls a corporation that owns or leases, a timber processing facility in British Columbia if the production capacity of the facility is less than the prescribed production capacity and the person, corporation or band

(a) meets the prescribed requirements, and

(b) complies with any conditions imposed by the district manager.

(4) On application in writing by the holder of a woodlot licence, the district manager may permit the holder to own or lease, or control a corporation that owns or leases, a timber processing facility in British Columbia if the production capacity of the facility is less than the prescribed production capacity and the holder of the licence

(a) meets the prescribed requirements, and

(b) complies with any conditions imposed by the district manager.

(5) If the district manager approves an application under subsection (4), the approval takes effect when the district manager and the holder of the woodlot licence enter into an agreement amending the woodlot licence in a manner that the district manager considers to be consistent with

(a) the holder of the woodlot licence owning or leasing, or controlling a corporation that owns or leases, a timber processing facility in British Columbia,

(b) the prescribed requirements, and

(c) any conditions imposed by the district manager.

(6) The Lieutenant Governor in Council may make regulations prescribing

(a) criteria that the district manager must consider before

(i) entering into a woodlot licence with a person who owns or leases, or control a corporation that owns or leases, a timber processing facility in British Columbia,

(ii) offering a replacement woodlot licence under section 46 to a person, corporation or band that owns or leases, or controls a corporation that owns or leases, a timber processing facility in British Columbia, or

(iii) permitting the holder of a woodlot licence to own or lease, or control a corporation that owns or leases, a timber processing facility in British Columbia, and

(b) the types of conditions the district manager may impose for the purposes of this section.

8 Section 53 is amended

(a) in subsection (1) by adding the following definition:

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"undercut carry forward" means the volume of timber that a holder of an agreement is granted approval to harvest in a calendar year as determined under section 67 (4); ,

(b) in subsection (1) by repealing the definition of "volume of timber harvested during a calendar year" and substituting the following:

"volume of timber harvested during a calendar year" means, in relation to an agreement, the total of the volumes listed in subsection (1.1) (a) to (e) minus the undercut carry forward for that calendar year. , **and**

(c) by adding the following subsection:

(1.1) The volumes listed for the purpose of the definition of "volume of timber harvested during a calendar year" in subsection (1) are those of the following volumes that are charged to the holder of the agreement in that calendar year in statements issued on behalf of the government:

- (a) the volume of timber cut under the agreement and under road permits issued under the agreement;
- (b) the volume of timber estimated to be wasted or damaged under cutting permits and road permits issued under the agreement;
- (c) the volume of timber cut by the holder of the agreement anywhere in the timber supply area or tree farm licence area, as the case may be, otherwise than under and in compliance with this Act or an agreement entered into under this Act;
- (d) the volume of timber credited in respect of the agreement by the regional manager or the district manager;
- (e) the part of the volume of timber harvested under the agreement during the immediately preceding 5 year cut control period in excess of the total of the allowable annual cuts in effect under the agreement during that 5 year cut control period, that is carried forward to that calendar year under section 65 (5).

9 Section 56 (1) is amended by repealing paragraph (a) and substituting the following:

- (a) in respect of a replaceable agreement that is
 - (i) a forest licence, or
 - (ii) a timber sale licence that has an allowable annual cut of greater than 10 000 m³
 the allowable annual cut specified in the licence is reduced by 5%, and .

10 The following section is added:

Disposition of allowable annual cut reduction

56.1 (1) In this section, a reference to **"agreement"** means an agreement that on or after June 19, 1997 is subject to the minister's prior written consent under section 54.

(2) If the allowable annual cut of an agreement is reduced under section 56 (1), the holder of the agreement may apply to have the allowable annual cut of the agreement increased by the amount of the reduction by serving a written notice on the minister requesting the increase and enclosing a job creation plan.

(3) The written notice and job creation plan must be served on the minister not later than 3 months

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after the consent was given under section 54 in respect of the agreement.

(4) The minister may

(a) approve the job creation plan.

(b) with the consent of the holder of the agreement who submitted the plan, approve an amended job creation plan, or

(c) reject the job creation plan.

(5) The minister must increase the allowable annual cut of the agreement, effective the date of the reduction under section 56 (1) by an amount equal to the reduction if

(a) the minister approves the job creation plan under subsection (4) (a) or (b), and

(b) the increase is consistent with the government's social and economic objectives for the area affected by the agreement.

(6) The minister may reduce the allowable annual cut of an agreement that was subject to an increase under subsection (5) by an amount not exceeding the increase if the holder of the agreement is not complying with the job creation plan approved under subsection (4).

(7) Despite subsection (3), if the allowable annual cut of an agreement was reduced before June 10, 1998 and the holder of the agreement wishes to apply under subsection (2) to have the allowable annual cut of the agreement increased, the holder of the agreement is not required to serve the written notice and job creation plan on the minister within 3 months after the consent being given under section 54 for the agreement but must serve the written notice and job creation plan on the minister by October 1, 1998.

(8) This subsection and subsection (7) are repealed on October 1, 1998.

11 Section 64 (1) is amended by adding "or community forest agreement" after "tree farm licence".

12 Section 67 (4) is repealed and the following substituted:

(4) Despite subsection (2), in prescribed circumstances, the minister or a person authorized by the minister may grant approval to the holder of an agreement to harvest, during the 5 year cut control period that immediately follows the 5 year cut control period in which the deficiency occurs, and in the amount each year the minister or person authorized by the minister determines, a volume of timber equal to all or a portion of the deficiency referred to in subsection (2).

(5) An approval under subsection (4) may be conditional or unconditional.

13 Section 78 is amended

(a) by adding the following subsection:

(0.1) In this section, "**small business agreement**" means

(a) a timber sale licence, or

(b) a forest licence

for which applications were restricted to persons registered in one or more categories of small business forest enterprises. ,

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(b) in subsection (1) (a) (ii) and (b) by striking out "timber sale licence" and substituting "small business agreement",

(c) in subsection (1) (e) by adding "for a small business agreement" after "making an application under Part 3",

(d) in subsection (1) (f) and (g) by striking out "timber sale licences" and substituting "small business agreements", and

(e) by adding the following subsections:

(4) Despite subsection (1), and subject to the regulations under subsection (5), if any, the regional manager or district manager must disqualify a person indefinitely or for a specified period from being registered as a small business forest enterprise if the person

(a) is the successful applicant for a small business agreement and does not enter into the agreement, or

(b) is the holder of a small business agreement that has been cancelled because the person did not comply with the agreement.

(5) For the purposes of subsection (4), the Lieutenant Governor in Council may make regulations

(a) specifying periods of disqualification that may differ for different circumstances set out in the regulations, and

(b) authorizing the regional manager or district manager to determine, on a case by case basis, within prescribed limits and according to prescribed criteria, the period of disqualification.

14 Section 111 is amended

(a) in subsection (1) by adding ", community forest agreement" after "tree farm licence", and

(b) by repealing subsection (4) and substituting the following:

(4) In prescribing the rates of annual rent, the Lieutenant Governor in Council may classify agreements granting rights to harvest Crown timber and set different rates for different

(a) classes of agreements,

(b) forms of agreements, or

(c) community forest agreements which are identified by the number of a particular agreement.

15 The following section is added:

Annual rent for council

112.1 (1) If authorized by the regulations and in accordance with the regulations, the Lieutenant Governor in Council, in prescribing the rate of annual rent for a woodlot licence, under section 111 (1), may allocate a portion of that rate to represent money payable to the Woodlot Product Development Council by producers, under the *Farming and Fishing Industries Development Act*, in respect of a levy established by the council under that Act.

(2) The revenue from the portion of annual rent payable for woodlot licences that is attributable to

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the allocated portion of the rate of annual rent under subsection (1)

(a) must be paid out of the consolidated revenue fund to the Woodlot Product Development Council, and

(b) when so paid, is deemed to have been paid in satisfaction of the levy referred to in subsection (1).

16 Section 151 is amended

(a) by adding the following subsection:

(1.1) In making a regulation under this Act, the Lieutenant Governor in Council may do one or more of the following:

(a) delegate a matter to a person;

(b) confer a discretion on a person;

(c) make different regulations for different persons, places, things or transactions. ,

(b) by repealing subsections (4) and (5), and

(c) by adding the following subsection:

(6) The Lieutenant Governor in Council may make regulations respecting the following:

(a) the form and content of a job creation plan referred to in section 56.1 (2);

(b) the methods to be used to evaluate job creation proposals in the job creation plan;

(c) the requirement to make a job creation plan available for review and comment before the minister considers the plan;

(d) the making and submitting of reports concerning the job creation plan and performance under the plan.

17 The following section is added:

Community forest agreements -- regulations

151.2 (1) The Lieutenant Governor in Council may make regulations considered necessary or advisable for the purpose of more effectively bringing into operation the provisions of this Act and the *Forest Practices Code of British Columbia Act* related to community forest agreements, and to remedy any difficulties encountered in doing so.

(2) A regulation made under subsection (1) may, for a period the Lieutenant Governor specifies in the regulation, amend a provision of

(a) this Act,

(b) the *Forest Practices Code of British Columbia Act*,

(c) the regulations made under either Act, or

(d) an enactment that amends this Act or the *Forest Practices Code of British Columbia Act*.

(3) A regulation made under this section may be made retroactive to a date not earlier than August 31, 1998.

(4) This section is repealed on August 31, 2001 and on its repeal any regulations made under it are also repealed.

Forest Practices Code of British Columbia Act

18 Section 1 (1) of the Forest Practices Code of British Columbia Act, R.S.B.C. 1996, c. 159, is amended

(a) by repealing the definition of "designated employment and investment official" and substituting the following:

"designated energy and mines official" means a person employed in the Ministry of Energy and Mines who is designated by name or title to be a designated energy and mines official by the minister of that ministry for the purpose of a provision of this Act or the regulations that is set out in the designation; ,

(b) in paragraph (a) of the definition of "forest practice" by repealing subparagraph (iii) and substituting the following:

(iii) private land that is subject to a tree farm licence, community forest agreement or a woodlot licence, and ,

(c) in the definition of "ministers" by striking out "Minister of Employment and Investment;" and substituting "Minister of Energy and Mines;" ,

(d) in paragraph (c) of the definition of "official" by striking out "employment and investment" and substituting "energy and mines" , and

(e) in paragraph (d) of the definition of "senior official" by striking out "Ministry of Employment and Investment," and substituting "Ministry of Energy and Mines," .

19 Section 2 is amended by adding the following subsection:

(7) In section 11.1 of the *Mineral Tenure Act* and section 12.1 of the *Coal Act*, **"applicable higher level plan"** means an objective for a resource management zone that specifies that the objective applies to special use permits.

20 Section 19 is amended

(a) in subsection (1) by adding ", community forest agreement" after "A holder of a major licence",

(b) in subsection (1.2) by adding ", community forest agreement" after "A forest development plan prepared by the holder of a major licence",

(c) in subsection (1.3) by adding "community forest agreement," before "woodlot licence or pulpwood agreement",

(d) in subsection (2) by adding ", community forest agreement" after "A forest development plan for a major licence", and

(e) in subsection (4) by adding ", community forest agreement" after "holder of a major licence".

21 Section 21 (a) as enacted by the Forests Statutes Amendment Act, 1997, is amended by adding ", community forest agreement" after "holds a major licence, timber sale licence".

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22 Section 23 (2) is amended by adding ", community forest agreement" **after** "Before the holder of a major licence".

23 Section 24 is amended

(a) in subsection (2) by adding ", community forest agreement" **after** "Before the holder of a major licence", **and**

(b) in subsection (3) by adding "community forest agreement or a" **after** "Despite subsection (2), the holder of a".

24 Section 39 (1) is amended by adding ", community forest agreement" **after** "Subject to sections 42 and 43, before a holder of a major licence".

25 Section 50 (1) (b) is amended by striking out "the conditions of a burning permit and the regulations and standards." **and substituting** "this Act and the regulations."

26 Section 67 (1) (c) is amended by adding ", community forest agreement" **after** "private land that is subject to a tree farm licence".

27 Section 68 (1.1) as enacted by the Forests Statutes Amendment Act, 1997, is amended by adding "community forest agreement or" **after** "A holder of a".

28 Section 72 is amended

(a) in subsection (2) by adding ", community forest agreement" **after** "If the holder of a major licence", **and**

(b) in subsection (3) (a) by adding "or agreement" **after** "holder of the licence".

29 Section 75 is amended by adding the following definition:

"local government" means the following:

- (a) the trustees of an improvement district;
- (b) the council of a municipality;
- (c) the board of a regional district;
- (d) the council of the City of Vancouver; .

30 Section 76 is amended

(a) by repealing subsection (1) and substituting the following:

(1) A person must not light, fuel or make use of an open fire in or within 1 km of a forest, except in compliance with

- (a) this Act and the regulations, and
- (b) any notice or order published, broadcast or given under section 78 (1).

(1.1) Subsection (1) applies despite any provision to the contrary in an operational plan. ,

(b) by repealing subsection (2), and

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(c) in subsection (3) by striking out "does not require a burning permit to" and substituting "may".

31 Section 77 is repealed.

32 Section 78 is repealed and the following substituted:

Notice or order respecting restriction, prohibition or extinguishment of an open fire

78 (1) A designated forest official, if he or she considers it necessary to limit the risk of a forest fire starting or to address a public health or safety concern,

(a) in a notice published or broadcast, or both, in or near an area, including an area exempted under section 76 (4), may

(i) restrict, with or without conditions, or prohibit the lighting, fueling or use of an open fire in an area, or

(ii) order that a person who is lighting, fueling or making use of an open fire in an area to extinguish the fire, and

(b) in a notice given to a person who is lighting, fueling or making use of an open fire in an area, may

(i) restrict, with or without conditions, or prohibit the person from lighting, fueling or making use of the fire, or

(ii) order the person to extinguish the fire.

(2) An order made under this section may be different for different categories of open fires set out in the regulations.

33 Section 81 is repealed.

34 Section 89 (1) is repealed and the following substituted:

(1) The government may carry out a fire control and suppression operation

(a) on any land, wherever located, if a designated forest official determines that

(i) the operation is necessary to control or extinguish a fire, and

(ii) forest resources on Crown land or private land are threatened by the fire, or

(b) on land within a local government's jurisdiction if the local government or a person authorized by the local government requests that the operation be carried out.

35 Section 124 is repealed.

36 Section 162 is amended

(a) in subsection (1) by adding ", or" at the end of paragraph (d),

(b) by repealing subsection (1) (e), and

(c) in subsection (2) by striking out ", permit".

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37 Section 211 is repealed and the following substituted:

Timber harvesting practices and methods

211 The Lieutenant Governor in Council may make regulations respecting timber harvesting practices and methods, including limiting or prohibiting a timber harvesting practice or method.

38 The following section is added

Forest resources

211.1 The Lieutenant Governor in Council may make regulations respecting the protection of forest resources.

39 Section 215 (1) is amended by striking out "and" at the end of paragraph (a) and by adding the following:

(a.1) regulating or prohibiting burning, and .

40 Section 217.1 as enacted by the Forests Statutes Amendment Act, 1997, is repealed and the following substituted:

Forest practices and planning applicable to community forest agreements and woodlot licences

217.1 (1) The Lieutenant Governor in Council may make regulations respecting

(a) woodlot licences, woodlot licence areas and holders of woodlot licences, and

(b) community forest agreements, community forest agreement areas and holders of community forest agreements.

(2) Without limiting subsection (1), the Lieutenant Governor in Council may make regulations respecting the following:

(a) establishing requirements and restrictions regarding the results that must be achieved through the carrying out of planning and forest practices, including the establishment of a free growing stand on a community forest agreement area or woodlot licence area;

(b) establishing conditions that must be complied with by the holder of a community forest agreement or woodlot licence before, during and after forest practices;

(c) requiring site plans to be prepared by the holder of a community forest agreement or woodlot licence and approved by the district manager before forest practices are carried out on the community forest agreement area or woodlot licence area;

(d) requiring that authority to carry out a forest practice on a community forest agreement area or woodlot licence area be obtained before the forest practice begins.

41 Section 240 is repealed and the following substituted:

Special use permits

240 (1) Every special use permit issued under the *Forest Act* and regulations that is in effect on June 15, 1995 is deemed to be a special use permit under this Act and the regulations.

(2) A permit referred to in subsection (1) does not have to comply with the content requirements

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of this Act, the regulations or the standards.

(3) Subject to subsection (2), a holder of a permit referred to in subsection (1) must comply with this Act, the regulations and the standards.

(4) Despite subsection (2), if the district manager determines that a permit referred to in subsection (1) does not conform with the requirements of the regulations and the standards, the district manager may

(a) amend the permit to the extent necessary to comply with the requirements of the regulations or standards, or

(b) cancel the permit.

Consequential Amendments

Forests Statutes Amendment Act, 1997

42 Section 136 of the Forests Statutes Amendment Act, 1997, S.B.C. 1997, c. 48, is amended

(a) in the part enacting section 246 (1) and (2) of the Forest Practices Code of British Columbia Act by striking out "the date this section comes into force" and substituting "June 15, 1998",

(b) in the part enacting section 246 of the Forest Practices Code of British Columbia Act by repealing subsection (3) and substituting the following:

(3) A logging plan continues to be a requirement for an area if

(a) before June 15, 1998

(i) a silviculture prescription for the area is submitted for the approval of the district manager or given effect by the district manager, or

(ii) the district manager exempts a person from the requirement for a silviculture prescription for the area, and

(b) the law in effect immediately before June 15, 1998 requires a logging plan.

(4) The law as it was immediately before June 15, 1998 with respect to logging plans, including, without limitation, the law respecting offences and administrative remedies related to logging plans, continues to apply to an area referred to in subsection (3) and to any logging plan approved or put into effect for the area, unless an enactment specifically provides otherwise, *and*

(c) in the part enacting section 247 of the Forest Practices Code of British Columbia Act by repealing section 247 and substituting the following:

Silviculture prescriptions continued

247 (1) Subject to subsection (2), if a silviculture prescription is submitted for the approval of or put into effect by the district manager before June 15, 1998, the silviculture prescription remains in effect until a free growing stand is produced on the area under silviculture prescription or the silviculture prescription is replaced under this Act or the regulations.

(2) The law respecting the content of silviculture prescriptions, as it was immediately before June 15, 1998, continues to apply to a silviculture prescription submitted or given effect by the district

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manager before June 15, 1998 and to an amendment to that silviculture prescription.

Special Accounts Appropriation and Control Act

43 Section 5 of the Special Accounts Appropriation and Control Act, R.S.B.C. 1996, c. 436, is amended

(a) in subsection (2) by repealing paragraph (b) and substituting the following:

(b) the Environmental Remediation Sub-account for a purpose related to the following:

- (i) to carry out work under section 118 (3) (b) of the *Forest Practices Code of British Columbia Act*;
- (ii) to remedy environmental damage to Crown forest land or Crown range land;
- (iii) for expenses directly or indirectly related to the purposes in subparagraph (i) or (ii);
- (iv) to defray the costs of investigating contraventions of the *Forest Practices Code of British Columbia Act* or the regulations and standards made under that Act;
- (v) to defray fire suppression costs relating to contraventions of the *Forest Practices Code of British Columbia Act* or the regulations or standards made under that Act if a penalty has been levied under that Act in respect of the contravention. , ***and***

(b) by adding the following subsection:

(2.1) The amount expended under subsection (2) (b) (v) must not exceed the amount in the Environmental Remediation Sub-account that is attributable to penalties levied under the *Forest Practices Code of British Columbia Act* and earnings calculated and attributable to those penalties in respect of the contraventions referred to in subsection (2) (b) (v).

Waste Management Act

44 Section 3 (5) of the Waste Management Act, R.S.B.C. 1996, c. 482, is amended by repealing paragraph (h) and substituting the following:

(h) fires set or controlled by a person

(i) acting under an order of a local assistant, as defined in the *Fire Services Act*, if the local assistant orders the fire for training purposes, or

(ii) carrying out

(A) fire control and suppression operations under section 89 of the *Forest Practices Code of British Columbia Act*, or

(B) a resource management open fire, as that term is defined in the *Forest Fire Prevention and Suppression Regulation*, B.C. Reg. 169/95, if the person carries out the fire in accordance with the *Forest Practices Code of British Columbia Act* and the regulations made under that Act; .

Transition for annual rents paid in 1998

45 A person who is required to pay annual rent for a woodlot licence in 1998, calculated in accordance with the law in force immediately before the coming into force of section 15 of this

Act, must also pay the portion of annual rent that under section 112.1 (1) of the *Forest Act* is allocated to represent money payable to the Woodlot Product Development Council as set out in section 112.1 (1) of the *Forest Act*.

Burning permit transition

46 (1) Every burning permit issued under the *Forest Practices Code of British Columbia Act* and the regulations made under that Act that is in effect when section 30 of this Act comes into force remains in effect until it expires in accordance with its terms or is cancelled.

(2) The law respecting burning permits, as it was immediately before section 30 of this Act came into force, continues to apply to a burning permit referred to in subsection (1).

Commencement

47 (1) The following come into force by regulation of the Lieutenant Governor in Council:

(a) that part of section 5 that enacts section 43.2 of the *Forest Act*;

(b) sections 6 to 8, 12, 13 (e), 15, 19, 25, 30 to 33, 35, 36, 41 and 44 to 46.

(2) Sections 37, 38 and 42 are deemed to have come into force on March 31, 1998 and are retroactive to the extent necessary to give them effect on and after that date.

Explanatory Notes

Forest Act

SECTION 1: [*Forest Act, amends section 1 (1)*] adds definitions for the purposes of the community forest agreement provisions of this Bill.

SECTION 2: [*Forest Act, re-enacts section 8*] adds references to community forest agreements, establishes the means to determine the harvest level for the agreements and removes spent references to specific dates.

SECTION 3: [*Forest Act, amends section 10 (1)*] adds a reference to community forest agreement area in the provision that allows the minister to specify allowable annual cut available to volume based agreements.

SECTION 4: [*Forest Act, adds section 12 (e.1)*] adds a reference to community forest agreement in the provision that authorizes officials to enter into agreements granting rights to harvest Crown timber.

SECTION 5: [*Forest Act, amends Part 3*] establishes a new form of agreement named a community forest agreement by adding Division 7.1 containing sections 43.1 to 43.5 which

- provide definitions for the purposes of Division 7.1,
- set out how an application for a community forest agreement is made and evaluated, and the process for awarding a community forest agreement to the successful applicant,
- specify the content of a community forest agreement,
- set out how probationary and long-term community forest agreements are replaced, and
- provide for community forest pilot agreements.

SECTION 6: [*Forest Act, repeals and replaces section 45 (f) (iv), (v) and (vii)*] requires that the provisions of a woodlot licence management plan identified in section 45 (f) (iv), (v) and (vii) conform to the requirements of the woodlot licence.

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SECTION 7: *[Forest Act, enacts section 46.1]* sets out the conditions under which the government may enter into, offer a replacement agreement for, or amend a woodlot licence to allow its holder to own or lease a timber processing facility.

SECTION 8: *[Forest Act, amends section 53]*

- adds a definition of "undercut carry forward" consequential to the amendments to section 67 of the Act made by this Bill;
- replaces the definition of "volume of timber harvested during a calendar year" so that in determining the volume of timber harvested in a calendar year the "undercut carry forward" volume of timber is subtracted from the other volumes of timber harvested in that year.

SECTION 9: *[Forest Act, repeals and replaces section 56 (1) (a)]* provides that only timber sale licences with an allowable annual cut of greater than 10 000 m³ are subject to the 5% allowable annual cut reduction under this section.

SECTION 10: *[Forest Act, enacts section 56.1]*

- in respect of licences whose allowable annual cut was reduced by 5% under section 56, enables the minister to increase the allowable annual cut of the licence by 5% if the holder of the licence requests the increase and submits a satisfactory job creation plan to the minister, and
- enables the minister to take back all or part of the increase if the holder of the licence is not complying with the job creation plan.

SECTION 11: *[Forest Act, amends section 64 (1)]* adds a reference to community forest agreements to ensure that the cut control provisions of the Act do not apply to these agreements.

SECTION 12: *[Forest Act, amends section 67]* replaces subsection (4) and adds subsection (5) to

- allow volumes of timber that were not harvested in a 5 year cut control period to be harvested in the cut control period that immediately follows the one in which the deficiency took place,
- enable the minister or a person authorized by the minister to determine how much of the deficiency is to be harvested in each year of the subsequent cut control period, and
- allow conditions to be placed on the approval.

SECTION 13: *[Forest Act, amends section 78 (1) and adds section 78 (0.1), (4) and (5)]*

- adds a definition of "small business agreement" to facilitate the application of the section to all forms of small business agreements;
- replaces the references to timber sale licences with a references to small business agreements;
- clarifies that subsection (1) (e), which prohibits a person who contravenes the section from applying for a *Forest Act* agreement, only applies to applications for small business agreements;
- requires the regional manager or district manager to disqualify a person from being registered as a small business enterprise if the person meets the conditions set out in subsection (4);
- enables regulations to be made that specify the period of disqualification or the criteria the regional manager or district manager must consider when determining the disqualification period.

SECTION 14: *[Forest Act, amends section 111]*

- adds a reference to a community forest agreement in the provision which requires annual rent to be paid to the government,
- makes housekeeping changes, and
- allows the rate of the annual rent to be different for different community forest agreements.

SECTION 15: *[Forest Act, enacts section 112.1]* adds a new section which enables a portion of the annual rent collected for woodlot licences to be remitted to a council under the *Farming and Fishing*

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Industries Development Act and deems that rent to be a levy under that Act.

SECTION 16: [*Forest Act, amends section 151*]

- repeals 2 subsections made unnecessary by the section 151 (1.1), added by this Bill,
- adds a subsection (1.1) expanding the regulation making powers under the Act to assist with amendments in this Bill, and
- establishes a regulation making power consequential to the section 56.1, added by this Bill.

SECTION 17: [*Forest Act, enacts section 151.2*] provides a regulation making power to amend specified Acts and regulations, if necessary to more effectively bring into operation the provisions of the *Forest Act* and the *Forest Practices Code of British Columbia Act* that relate to community forest agreements.

Forest Practices Code of British Columbia Act

SECTION 18: [*Forest Practices Code of British Columbia Act, amends section 1 (1)*]

- makes housekeeping changes to several definitions arising out of a reorganization of government;
- amends the definition of "forest practice" to include a reference to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 19: [*Forest Practices Code of British Columbia Act, adds section 2 (7)*] defines which higher level plans under the *Forest Practices Code of British Columbia Act* must be followed in relation to the issuance of special use permits under that Act for the purposes of section 11.1 of the *Mineral Tenure Act* and section 12.1 of the *Coal Act*.

SECTION 20: [*Forest Practices Code of British Columbia Act, amends section 19*] adds references to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 21: [*Forest Practices Code of British Columbia Act, amends section 21 (a)*] adds a reference to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 22: [*Forest Practices Code of British Columbia Act, amends section 23 (2)*] adds a reference to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 23: [*Forest Practices Code of British Columbia Act, amends section 24*] adds references to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 24: [*Forest Practices Code of British Columbia Act, amends section 39 (1)*] adds a reference to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 25: [*Forest Practices Code of British Columbia Act, amends section 50 (1) (b)*] strikes out a reference to a burning permit and adds a reference to the Act consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit.

SECTION 26: [*Forest Practices Code of British Columbia Act, amends section 67 (1) (c)*] adds a reference to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 27: [*Forest Practices Code of British Columbia Act, amends section 68 (1.1)*] adds a

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reference to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 28: [*Forest Practices Code of British Columbia Act, amends section 72*] adds references to a community forest agreement consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 29: [*Forest Practices Code of British Columbia Act, amends section 75*] defines "local government" for the purposes of the amendments to section 89 of the *Forest Practices Code of British Columbia Act*, made by this Bill.

SECTION 30: [*Forest Practices Code of British Columbia Act, amends section 76*] makes changes consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit

- replaces the requirement to use fire in accordance with a burning permit and the regulations with a requirement to use fire in accordance with the Act, regulations and a notice under the re-enacted section 78 of the Act, and
- clarifies that the requirements of subsection (1) apply despite any operational plan.

SECTION 31: [*Forest Practices Code of British Columbia Act, repeals section 77*] repeals a section that deals with the issuance of a burning permit consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit.

SECTION 32: [*Forest Practices Code of British Columbia Act, re-enacts section 78*]

- adds the need to address a public health or safety concern as a criteria to act under the section;
- eliminates references to burning permits, and makes changes consequential to the orders in this section now applying to burning that is authorized under the regulations, rather than by a burning permit;
- clarifies that designated officials can order a person to extinguish a fire;
- ensures orders under the section can be different for different types of fires.

SECTION 33: [*Forest Practices Code of British Columbia Act, repeals section 81*] repeals a section that deals with burning permits consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit.

SECTION 34: [*Forest Practices Code of British Columbia Act, repeals and replaces section 89 (1)*] eliminates a redundant criteria in subsection (1) and authorizes the government of the Province to fight fires within a local government's jurisdiction if requested by the local government.

SECTION 35: [*Forest Practices Code of British Columbia Act, repeals section 124*] repeals a provision that deals with the suspension or cancellation of burning permits consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit.

SECTION 36: [*Forest Practices Code of British Columbia Act, amends section 162*] repeals a reference to a burning permit consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit.

SECTION 37: [*Forest Practices Code of British Columbia Act, re-enacts section 211*] provides a regulation making power for timber harvesting practices as well as methods.

SECTION 38: [*Forest Practices Code of British Columbia Act, enacts section 211.1*] provides a regulation making power to protect forest resources.

SECTION 39: [*Forest Practices Code of British Columbia Act, adds section 215 (1) (a.1)*] adds a regulation making power with respect to burning consequential to the provisions of this Bill which

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provide for the regulation of fires without a burning permit.

SECTION 40: [*Forest Practices Code of British Columbia Act, re-enacts section 217.1*] adds references to community forest agreements, holders of community forest agreements and community forest agreement areas consequential to the provision for such agreements in the new Division 7.1 of the *Forest Act*, added by this Bill.

SECTION 41: [*Forest Practices Code of British Columbia Act, re-enacts section 240*] removes references to burning permits consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit.

Forests Statutes Amendment Act, 1997

SECTION 42: [*Forests Statutes Amendment Act, 1997, amends section 136*]

- adds a reference to the date that section 246 of the *Forest Practices Code of British Columbia Act* comes into force;
- provides that a logging plan may be required for an area if a silviculture prescription is submitted for approval before June 15, 1998, rather than if the silviculture prescription is approved before that date;
- clarifies that, unless an enactment specifically provides otherwise, the law with respect to logging plans continues to apply to logging plans required under section 246 (3) of the *Forest Practices Code of British Columbia Act*;
- repeals and replaces section 247 of the *Forest Practices Code of British Columbia Act* to refer to the date the section comes into force and to make the section applicable to silviculture prescriptions submitted for approval before June 15, 1998, rather than to silviculture prescriptions approved before that date.

Special Accounts Appropriation and Control Act

SECTION 43: [*Special Accounts Appropriation and Control Act, amends section 5*]

- adds subparagraphs (iv) and (v), authorizing payment out of the Environmental Remediation Sub-account to compensate the government for enforcement costs and fire suppression costs, and makes housekeeping changes consequential to the new subparagraphs, and
- adds subsection (2.1) to cap the amount that can be paid out of the fund in relation to fire suppression costs.

Waste Management Act

SECTION 44: [*Waste Management Act, repeals and replaces section 3 (5) (h)*] makes changes consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit, and makes housekeeping changes.

SECTION 45: [*Transitional -- woodlot licence annual rent*] requires all woodlot licence holders, regardless of the date they pay annual rent, to pay the portion of annual rent for 1998 that is allocated to a council under the *Farming and Fishing Industries Development Act*.

SECTION 46: [*Transitional -- burning permits*] provides a transition respecting existing burning permits consequential to the provisions of this Bill which provide for the regulation of fires without a burning permit.

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