2006

An analysis of community forest implementation in British Columbia, Canada

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Canada

AN ANALYSIS OF COMMUNITY FOREST
IMPLEMENTATION IN BRITISH COLUMBIA, CANADA

By

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B.A. (Hons), Laurentian University, 2004

THESIS
Submitted to the Department of Geography and Environmental Studies
in partial fulfillment of the requirements
for the Master of Environmental Studies degree
Wilfrid Laurier University
2006

ABSTRACT

The community forest is increasingly seen as an alternative to industrial forestry for its perceived potential to mitigate conflict in forest resource management and planning. Theoretically, a community-based approach affords the chance to assert local values, provide local benefits, and manage resources differently than established top-down approaches. Yet practical examples of community forest initiatives in Canada reveal a host of constraints. This research uses a multiple case study design to investigate the motivations for and challenges to implementing community forests in British Columbia, Canada. Observations are drawn from four case studies (Denman Island, Malcolm Island, Cortes Island, and Creston) in order to consider implementation as an ongoing and dynamic process. Site visits and semi-structured interviews with community forest stakeholders were conducted in June 2005. Based on a synthesis of the community-based resource management and implementation literature, the analysis uses a systems approach to identify challenges at multiple spatial and temporal scales to examine the complexity of cross-scale interactions.

The study outlines a sequence of process stages and associated challenges that are critical to developing successful community forests. In addition to unique, context-specific challenges, results show that low local support and awareness, low First Nations support, difficulty reaching consensus, lack of human and physical resources, poor forest health and timber profiles, weak senior government support, resistance from the industrial/scientific forestry paradigm, and competition for land and forest tenure are common challenges. Results confirm that the primary motivation for community forestry is local control of resources for local benefits; however, local development pressure is

also an impetus for increasing control. This reveals a key difference between communities where forests are important from the standpoint of the traditional forest-industry compact versus those where forests are important for lifestyle and tourism. Given the range of critical challenges involved, communities pursuing community forestry must be sure of their intentions and they must be sure that community forestry is truly the appropriate route to achieving local goals.

ACKNOWLEDGEMENTS

This work is dedicated to my first born daughter, Georgia Lynn Bullock, born on Earth Day, April 22, 2006.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

AAC	Annual Allowable Cut
BC	British Columbia
BCCFA	British Columbia Community Forest Association
BCMCS	British Columbia Ministry of Community Services
BCMOF	British Columbia Ministry of Forests
CAN	Community Action Network
CBNRM	Community-based Natural Resource Management
CES	Cortes Ecoforestry Society
CFA	Community Forest Agreement
CFPP	Community Forest Pilot Project
CIFC	Cortes Island Forestry Committee
CORE	Commission on Resources and Environment
CVFC	Creston Valley Forest Corporation
DCFC	Denman Community Forest Co-operative
DFC	Denman Forestry Committee
DFI	Denman Forestry Initiative
DFO	Department of Fisheries and Oceans
DIAND	Department of Indian and Northern Development
DIRRA	Denman Island Resident's and Ratepayer's Association
EID	Erickson Improvement District
FL	Forest Licence
FRBC	Forest Renewal BC
LRMP	Land and Resource Management Planning
MB	MacMillian Bloedel
MICFC	Malcolm Island Community Forest Corporation
MICFI	Malcolm Island Community Forest Initiative
MLA	Minister of Legislative Assembly
NDP	New Democratic Party
OGMA	Old Growth Management Area
PAC	Public Advisory Committee
PAS	Protected Areas Strategy
PSYU	Public Sustained Yield Unit
RDMW	Regional District of Mount Waddington
RPF	Registered Professional Forester
SFC	Silva Forestry Consultants
SLA	Softwood Lumber Agreement
SRA	Sointula Recreation Association
TFL	Tree Farm Licence
TSL	Timber Sale Licence

1. INTRODUCTION

1.1. Problem Definition

The community forest is increasingly being considered as an alternative to industrial forestry for its potential to mitigate conflict related to the structure of control and use of forest resources (Duinker et al 1991; Duinker et al 1994; Beckley 1998; Wouters 2000; Robinson et al 2001). Community forestry is a response, in part, to local demands for more control over regional resources. Such an approach affords the opportunity to assert local values through direct community involvement in forest management. Theoretically, the model provides for multi-stakeholder involvement and a better distribution of forest-derived benefits at the local level.

The shift from senior government and industry control to local interest groups has been slow and hesitant, and community forest programs remain largely experimental despite widespread support from the Canadian public (Beckley 1998; Robinson et al 2001). There is also a noticeable problem with gaps between the theory and practice in the community forests already in place (Beckley 1998). In BC this problem has been attributed to the fact that many community forests are still evolving, so that all aspects of practice do not yet conform to the theoretical models. It may also indicate underdeveloped theory and understanding of a truly complex phenomenon. Such issues are expected to decrease as community forests develop, and increasing government and public support should make a positive contribution to their advance.

The growing movement for local control of forest resources is evident as numerous communities expressed interest by submitting proposals for the BC Community Forest Agreement program, as well as Canada's Model Forest Program (Sinclair and Smith

1

1999; British Columbia Ministry of Forests [BCMOF] 2004a). However, it cannot be assumed that all communities are suited to this form of management or that all are ready and/or willing to assume control over local resources (Duinker et al 1991). Despite the increasing popularity of community forest management, those involved must be careful not to be misled by its fashionable image.

Of concern to the greater movement for local control is the success rate of new community forest initiatives (Duinker et al 1991). Academe can offer support for community forest management by conducting research aimed at understanding current limitations and improving the model. According to Beckley (1998: 742) "empirical cases [of community forests] are the result of what is politically possible, financially feasible, and socially acceptable given the current constellation of interests involved in local and provincial forest management and policy frameworks." Thus, the challenges to start-up and the reasons for incomplete function thereafter need to be addressed through empirical study, in order to strengthen the community forest approach and improve ongoing success.

Accordingly, implementation is associated with both of these concerns (Margerum 1999). Implementation has been referred to as the "missing link" in policy analysis, as it is often overlooked in policy research (Jordan 1999: 70). Indeed, implementation is a pivotal point in the evolution of policy, where resource management actions try to move a plan beyond "what should be done" to "what will be done" (Mitchell 2002: 290). The actions taken during implementation can either make or break a project. Moreover, Margerum (1999: 183) suggests that implementing a collaborative scheme is much more complicated than in solo cases due to "a range of issues, conflicts, strategies, and actions

2

that stakeholders can use to achieve a shared vision." The significance of this statement

becomes clear when one considers that for community forest management to be

successful multiple stakeholders must work together.

1.2. Research Question and Objectives

In the context of the issues outlined above, it is timely to conduct an analysis of

community forest implementation and to question local motivations for community

forestry. Two overall questions guide this research:

1. What are the challenges to implementing a community forest initiative?

2. Why do communities turn to community forestry? Put another way, what are the motivating factors?

The main objectives are as follows:

1. Develop a current review of community forest, community-based resource management, and policy implementation literature, and establish theoretical propositions and the analytical framework.

2. Conduct case studies to uncover challenges to and motivations for community forestry.

3. Develop theory and make recommendations for practice, in order to contribute to our understanding of community forests in resource and environmental management.

1.3. Community Forests in British Columbia: An Overview

In BC, provincial forest policy laid the foundations for regional development, yet it is

largely responsible for the quandary faced by many forestry-based communities today.

Ever constrained by precedent, policy makers have had a difficult time adjusting forest

policy to match modern day ecological and socioeconomic realities (J. Wilson 1998). It

is no simple task to break away from the course of earlier decisions due to significant

commitments made by industry, labour, and forest-dependent communities. To

3

understand the emergence of community forests in BC, it is necessary to understand the significance of forests and forestry institutions, the community-industry compact, and the evolution of conflict and forest policy.

Community forests, and the idea of devolving power to the community level, remain controversial in BC as such approaches stand to threaten the "entrenched industrial tenure system" (Robinson et al 2001). Private business has controlled public timber resources in the province for well over 100 years (Cashore et al 2001). The late 19th century was a pivotal moment in BC forest management in that specific ideas became policies with lasting influence. For example, the "basic principle of tenure policy, Crown ownership, was adopted more or less intact by colonial authorities on the West Coast and, after 1871, by the new provincial government" (Apsey et al 2000: 48). Timber leases were introduced by the province during the 1880s to slow the timber exploitation associated with the "cut and run" practices of early loggers (Barnes and Hayter 1997: 3). Growth-oriented policies were later assumed and systematic industrial exploitation began to generate provincial economic wealth and social development. The BC Forest Branch, established in 1912 to administer land leases, worked to enable economic growth and became a powerful institution as a result (Howlett 2001). It remains a large provincial bureaucracy with a "command and control" approach to managing Crown forests (Weetman 2001: 214). Thus, "for almost a century a closed policy monopoly constructed between government and industry existed in the provincial forest sector" (Howlett 2001: 97).

Major forest policy changes came with the Sloan Royal Commissions of 1947 and 1956. The industrial tenure system established by the Commission of 1947 has been

referred to as the single most significant institution affecting forests in BC (Binkley 1997). Indeed, the tenure system remains a contentious issue today. Two main forms of tenure were introduced, the Tree Farm Licence and (TFL) and the Public Sustained Yield Unit (PSYU). Each involved large tracts of forested land, leased to private companies, whereby plans for use were submitted prior to lease approval. The Sloan Commission and the MOF favoured "big business" for their resources and capacity, thereby making it difficult for smaller companies to obtain licenses (Hayter and Barnes 1997: 3). Logging rights were passed on to large corporations, with leases that rolled over indefinitely.

Sustained yield policy was also introduced by the first Sloan Commission based on ideas emanating from the German school of forestry and conservation (Drushka 1985). To explain, German foresters coming to North America in the late 1800s advocated the principles of scientific forest management and sustained yield forestry as a way to simultaneously preserve timber and enable exploitation. This utilitarian perspective necessitated converting "abnormal" existing forests to "normal" second growth forests (Drushka 1985: 29). It was no small oversight that it took over a century of management in European forests to produce such uniform forest conditions. In BC, harvesting practices would not conform to the notion of balancing annual harvest with annual growth; it was accepted that balance could come at some time in the future. This lag was a major divergence from the way sustained yield forestry was intended to be practiced. Economic values were still put ahead of ecological realities. Overharvesting occurred in the process of converting the forests to second growth and forest companies did not restock cutover forest land (Marchak et al 1999). This did not mirror the German notion of sustained yield since it was not at all sustainable. In fact, these practices contributed to

the gradual emergence of a "falldown effect"—an economic abstraction used to describe the inevitable decrease of available timber that will come with the transition from harvesting old-growth to second-growth forests.

The first Sloan Commission did, however, introduce the concept of the community forest when a recommendation was made for municipal management of local forests (Sloan 1945). The recommendations of the 1947 and 1956 Sloan Commissions ultimately lead to the formation of the Mission Municipal Forest in 1958 (Allan and Frank 1994). While the latter Commission supported expansion of the program, municipalities were largely unaware of the opportunity and nothing became of the proposal.

The tenure system was designed to promote economic development and boost provincial wealth by facilitating sustained yield forestry (Marchak et al 1999). Logging companies were granted tenure based on a requirement that they build local mills to create employment. Also important were the "appurtenancy" clauses that required companies to move wood through specific mills near the granted supply areas (Marchak et al 1999: 18). This community-industry compact has long characterised development in the rural resource supply areas of BC, providing great wealth. At one time the BC forest industry was the most significant source of provincial wealth; the argument was that 50% of provincial economic activity resulted from the forest industry (J. Wilson 1998). However, wealth generation depended on very high volumes of timber extraction for export to far away markets. This was especially true following WWII when Fordism became the dominant model for production. Typically, a limited number of forest products were produced in large-scale, capital intensive operations based on the assembly

line. High output processing operations were designed to be most efficient at maximum

capacity and depended on enormous volumes of wood to maintain operations. Industry

was controlled by multinationals and geared to foreign export markets (Barnes and

Hayter 1997). The significance of global connections to regional socioeconomic

development must not be overlooked. As in the Innisian model of a staples economy, the

industry remained an "export-oriented and cyclical industry" (J. Wilson 1998: 21). The

strength of the forest industry was linked directly to the strength of other markets, and

accessible Crown timber supplies. This remains true, illustrated by the fact that recent

estimations show that more than 80 percent of total BC forest industry sales go to foreign

markets.

Though BC's forests have provided economic wealth and social development,

important issues related to First Nations, wildlife, and a range of non-timber values were

neglected due to provincial support for the industrial tenure system and timber extraction

(Gunton 1998). The 1976 Pearse Royal Commission recognized the need to address

environmental practices and again recommended increased local control:

> 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.
> Native Indian reserves present another potential source of forest land that
> might be combined with provincial Crown land into sustained yield units, under
> band management. (Pearse 1976: 118)

Recommendations were also made to increase security for large tenure holders,

reaffirming provincial support for industry (Hoberg 2001a). But the traditional industry-

government bond was soon met with increased public agitation. First Nations and

7

environmental groups crystallized during the 1970s. Labour groups too vocalized their concerns for employment with the realization of diminishing timber supplies. Growing mutual dissatisfaction with the management regimes of industry and government led to the formation of the Tin-Wis Coalition in 1980, an example of First Nations, environmentalists, and forest workers joining together in a rally for community-based tenures (Howlett 2001).

Hoberg (2001a) identified three key background changes that led to the substantial forest policy reforms of the 1990s: public opinion, elections, and markets. 1) Public opinion, with regard to forest preservation and non-timber forest values, has been changing globally and locally since the rise of the environmental movement. This common shift to environmental values has pressured policy-makers to consider issues beyond the economic realm. 2) The change from the pro-industry Social Credit government to the more environmentally friendly NDP (New Democratic Party), first in the 1970s and then again in the early 1990s, was significant. This inserted policy-makers that were more sensitive to environmental issues. 3) The last change relates to market volatility and the BC forest resource economy. Industry experienced significant losses at three points between 1980 and 1999 with drops in the market for BC forest products. Softened by the financial losses of international market declines, industry was not always equipped to resist policy changes.

The first major change came in 1992 when the Commission on Resources and Environment (CORE) was started to address issues of public participation and the goal of regional land-use planning (Pedersen 1995). Land and Resource Management Planning (LRMP) began as a process designed to build consensus and generate sub-regional land

use plans in support of integrated forest management. The goal was to provide stability and give direction to land use by providing set resource management strategies and objectives. Jeremy Wilson (2001) claims that the consensus-based regional land use planning process developed by CORE remains its most significant contribution.

Also in 1992, the Protected Areas Strategy (PAS) was introduced with the goal of protecting 12% of the provincial land base (Wouters 2000). According to Pedersen (1995: 88), "the PAS mandate is to protect viable representative examples of the natural diversity of the province, as well as special natural, cultural heritage, and recreational features." Some (e.g. M'Gonigle 1997: 41) are critical that much "rock and ice" in higher elevations has been protected. Nonetheless, the PAS prohibited resource extraction in protected areas and committed BC to doubling its protected areas by 2000 (Wouters 2000).

Forest Renewal BC (FRBC) was also created to improve provincial investments in BC forest management (Binkley 1997). As a Crown corporation funded directly by increased stumpage fees, apportionments from FRBC's US 400 million funding pool were made to silviculture investments, industry diversification and value-added manufacturing, environmental restoration, strengthening communities, and worker training (Binkley 1997; Wouters 2000). FRBC soon came under criticism as an ineffective and wasteful bureaucracy that mismanaged funds (Reed 2003). Despite these problems, Hoberg (2001b: 216) suggests that FRBC was a "brilliant concept" that enabled the government to redirect funds from industry to areas of government priority.

The Forest Practices Code came into effect in 1995 to ensure "that what happens in [BC's] forests is well-planned and takes all values into account" (Wouters 2000: 14). A

long history of irresponsible forest exploitation led to the creation of the Code to appease public and professional concerns. Pedersen (1995: 89) comments that the Code was "undoubtedly one of the most ambitious regulatory undertakings in the province's history" as it addresses forest management comprehensively to include planning; forest health; soil conservation; recreation management; range management; silvicultural systems; forest road engineering; timber harvesting; regenerating the forest; tending the forest; and forest protection.

Presently, cutting rights for the provincial Annual Allowable Cut (AAC) are distributed under five main tenure forms: Tree Farm Licences (TFLs), Forest Licences (FLs), Timber Sale Licences (TSLs), Woodlots, and Community Forest Agreements (CFAs) (Haley 2002). About 80% of the AAC is controlled primarily by a small number of large corporations under TFLs and FLs. While TFLs grant exclusive long-term cutting rights on a specific land base, FLs are volume-based. More than 15% of annual timber allocations are distributed by way of short-term area-based TSLs sold to small manufacturers and logging companies. Woodlot licences account for only 1.7% of annual timber allocations and are controlled by private individuals, First Nations, communities, and corporations without processing capabilities. Finally, Community Forest Agreements comprise less than 1 % of the AAC. Despite the recommendations of past Royal Commissions, mass protests, and ambitious policy reforms, public timber remains disproportionately allocated to large industrial interests.

Researchers (e.g. Duinker et al 1994; M'Gonigle and Parfitt 1994; M'Gonigle 1997; Beckley 1998; Mitchell-Banks 1998; Burda 1999; Kimmins 2002) have considered the need for tenure reform and the advantages it could provide in terms of social, economic,

ecological, and cultural benefits, both locally and provincially. Some (Duinker et al 1994; Beckley 1998) call for new tenure arrangements that could operate within current bounds of economic and power structures, if made more flexible. Others (M'Gonigle 1997), meanwhile, propose what might be considered more complete and even radical overhauls and structural reforms. M'Gonigle (1997: 39) suggests a transformation that takes us away from a "centralist" to a "territorial" model, where emphasis is given to economic value rather than volume, modes of production switch from capital intensive to labour intensive, and corporate bureaucracies give way to community management. Such an approach might be a way to improve stability and build resilience into rural communities. Many forestry dependant towns are in transition as the BC forest industry adjusts to changes in policy and practice, technology, timber supply, and market influences (Barnes and Hayter 1997).

Reinforcing the movement for new policy, tenure reform, and more local control is the realization that 95 percent of BC forests are publicly owned (Robinson et al 2001) and that 23 percent of BC communities depend on forestry as the primary income source for residents (Wouters 2000). While concerns for environmental and community health grow, many forest dependant communities in BC are looking to break away from the control of multinational corporations and external market forces. Duinker et al (1991: 132) suggest that power imbalances have favoured regional and provincial interests, "with the interests of local communities lying mainly in the hands of senior levels of governance and private enterprise." Shifting public values have created conflict over forest issues, leading to the call for more collaboration and public participation in forest management (Allan and Frank 1994). Beckley (1998: 736) also speaks of a "legitimacy

crisis" that currently threatens the forestry profession in Canada. Public demands are growing for increased accountability among forest managers, improved institutional effectiveness, and the implementation of ecosystem-based management. This has been attributed to the disparate views and values of the public and professional forestry institutions (J. Wilson 1998; Robinson et al 2001; Kimmins 2002).

The combined outcome of the abovementioned events and influences has been neatly summarized by Haley:

> During the 1990's, a groundswell of public opinion in support of community forests emerged in rural communities throughout BC. This interest was stimulated by a growing realization that local people had virtually no control over the very resources that played such major roles in their lives providing their livelihoods, their living space, their water, a portion of their food supplies and sources of recreation and inspiration. These anxieties were reinforced by the erosion of forest industry jobs and growing concerns about the environmental impact and sustainability of industrial forest practices. (Haley 2002: 4)

Community forests were "designed to maximize benefits of forest values to a different and usually wider range of stakeholders while simultaneously serving as mechanisms to reduce conflict between stakeholders" (Beckley 1998: 736). Thus, political, economic, and social forces continued to stir, effectively setting the stage for alternative arrangements to develop.

1.4. Current Status of Community Forestry in BC

A synthesis of common definitions provides the following definition for "community forest": the local control of local forest resources for the purpose of directing multiple forest-derived benefits from multiple forest values to a wide group of local people (Duinker et al 1991; Duinker et al 1994; BCMOF 2004a; Gunter 2004). For the purpose of this research, "community forestry" implies human-forest interactions and the purposeful manipulation of local forests for human benefit; plainly, community forestry

is what people "do" when involved with community forests. In theory, community

forestry is fundamentally different from traditional management schemes in that it serves

to achieve sustainability, fairness, and efficiency in relation to tenure arrangements,

stakeholder representation, and the use of all available forms of knowledge in decision

making (Beckley 1998).

In BC, community-based tenures now exist in two main forms:

- woodlot licenses to manage plots of Crown land held by First Nations, municipalities and others; and,
- community forest agreements, which can include partnerships between First Nations, municipalities, and environmental protection groups. These agreements are "area-based tenures of 25 to 99 years duration, replaceable every 10 years after a five-year probationary period. The tenure holder must represent a broad range of interests in the community. (Wouters 2000: 63)

As well, there are examples of community forests operating with industrial tenures.

Kaslo and Creston began with FLs while Revelstoke operates under a TFL (British

Columbia Community Forest Association [BCCFA] 2006). Moreover, Anderson and

Horter (2002) suggest that there are as many as 21 community forests, broadly defined,

operating under a variety of arrangements (i.e. FLs, TFLs, resolved First Nations land

claims, shared jurisdiction models, co-management models, or with municipally owned

private land).

In 1998 when the Community Forest Agreement Program was introduced, 88

communities inquired and 27 submitted full applications (BCCFA 2006). Estimates in

2002 showed about 125 BC community bodies to have an interest in establishing a

community forest (Anderson and Horter 2002). Since 1998, 12 agreements have been

granted, and by June 2006 another 31 communities were invited to apply (BCMOF

2006). A flood of invitations followed an announcement by the provincial government to double the Small Tenures Program as part of the 2003 Timber Revitalization Plan:

> Timber being reallocated from B.C.'s largest tenure holders will be used to support a market-based timber pricing system under BC Timber Sales and provide new opportunities for First Nations, communities, and woodlots operators. (BCMOF 2005a)

The reallocation involves 20 percent of large-scale tenure holdings. In another move that suggests growing provincial commitment to community forests, the government introduced the CFA as a tenure proper in September 2004. The Forest Minister reserves the right to invite applications from communities deemed suitable based on economic need; the absence of multiple applicants in an area; tenure availability; an opportunity to transform an existing tenure; or the potential to resolve serious forest related conflict. Although a formal application process is now in place, attaining tenure and operationalizing a community forest is certainly not a simple affair. Thus, this thesis explores the challenges to community forest implementation in BC, Canada.

1.5. Summary of Thesis Organization

This thesis is organized into five chapters. The first chapter introduced the study by defining the research problem, research questions, and main objectives as well as an overview of community forests in BC. Chapter 2 includes a three part literature review, which links the research to relevant current discourse and establishes theoretical propositions for case study analysis. The methodology of the research is described in Chapter 3 with reference to the steps in the research process, data collection methods, and analysis procedures. Chapter 4 presents the case studies; a discussion of results and analysis follows each case respectively. The final chapter offers conclusions, suggestions

for further academic and applied research, and a list of recommendations for community

forest organizations.

2. LITERATURE REVIEW

2.1. Introduction

This chapter synthesizes elements of theoretical and empirical works from three fields of relevance to this study: implementation, community-based natural resource management (CBNRM), and community forestry. The review establishes the theoretical propositions (previously identified challenges to community forestry, CBNRM and general implementation) and provides a foundation for the case study analytical framework. This chapter first introduces each body of literature by providing an overview of the prevailing ideas that define the main approaches, areas of controversy, and some research needs in each field. The final section synthesizes observations from each field to highlight challenges relevant to community forestry.

2.2. Implementation

Scholars of implementation tend to emphasize two distinct research approaches: "top-down" and "bottom-up". The latter approach was developed by analysts who acknowledged that significant local and wider, often indirect, contextual influences all come to bear on implementation success. Progressive scholars (e.g. Van Meter and Van Horn 1975; McLaughlin 1976; Berman 1978; Hjern et al 1978; Elmore 1980; Mazmanian and Sabatier 1981) came to incorporate systems thinking as a way to deal with the complexity of implementation as a multifaceted process. This section considers the evolving definition of implementation and illustrates the emergence, application, and relevance of bottom-up and systems approaches to community forest implementation—a largely grassroots initiative that first developed in the absence of supporting government policy frameworks.

2.2.1. Defining Implementation as a Process

Prior to the mid-1970s, implementation was viewed as a somewhat discrete step in the policy process and was given little consideration by analysts. Implementation was assumed to be "a series of mundane decisions and interactions unworthy of the attention of scholars seeking the heady stuff of politics" (Van Meter and Van Horn 1975: 450). The common belief was that the most important policy issues had been previously resolved by elite decision makers (e.g. executives, legislators, and judges). The emphasis was on "the decision" as the primary leverage point in launching a successful policy idea (Hyder 1984: 1). In essence, it was believed that "it was the quality of the idea that mattered and not its execution" (Hanna 2006).

According to Elmore (1980: 605), "the emergence of implementation as a subject for policy analysis coincides closely with the discovery by policy analysts that decisions are not self-executing." In working towards a common understanding and definition of implementation, the idea took hold that implementation is actually a process rather than a simple stage (Berman 1978). It was more useful to consider implementation as an evolutionary process because policies change over time during implementation (Majone and Wildavsky 1979). Thus, implementation involves the actions taken to move a policy idea from "what should be done" (normative planning) to "what will be done" (operational planning) (Mitchell 2002: 290). As an ongoing and dynamic activity, this view of implementation has attached connotations of monitoring, review, evaluation, negotiation, and adaptation of policy ideas and activities (Hanna 2006; Hessing et al 2005).

17

2.2.2. Top-down vs. Bottom-up Approaches

While the accepted view of implementation shifted during the late 1970s, the assumption (and indeed practice) remained that policy ideas were best delivered in a top-down manner. It was assumed that policy was formulated at higher levels of government and then passed down to lower levels for implementation, as "this is the way policy *should* develop" (Lipsky 1978: 392). As such, most implementation studies "started with a policy decision (usually a statute) and examined the extent to which its legally-mandated objectives were achieved over time and why" (Sabatier 1987: 22). Also referred to as "forward mapping", such approaches involved tracking a senior level decision downward through a series of defining steps (Elmore 1980). Essentially, top-down approaches look at how the implementation process is structured from the top-down and compare senior level decisions or intentions to how specific outcomes meet formal objectives or desires (e.g. Mazmanian and Sabatier 1981; Van Meter and Van Horn 1975).

Top-down approaches were widely criticized in the formative years of implementation research (e.g. Elmore 1980; Berman 1978; Hjern et al 1978; Lipsky 1978). The main conflict was that some believed top-down approaches to be inherently flawed because they worked under erroneous assumptions that the policy process was controlled through central, systematic, and hierarchical organization. According to Elmore (1980: 603), "the most serious problem with forward mapping is its implicit and unquestioned assumption that policymakers control the organizational, political, and technological processes that affect implementation." Top-down views of implementation overstated the influence of senior government officials while neglecting "strategic initiatives coming from the

private sector, from the street level bureaucrats or local implementing officials, and from other policy sub-systems" (Sabatier 1987: 30). Top-down approaches were criticized as ill-suited to situations "where there is no dominant policy (statute) or agency, but rather a multitude of governmental directives and actors, none of them preeminent" (Sabatier 1987: 30). In this sense, rigid top-down approaches cannot account for variation in the policy implementation process and may simply observe policy failure without being able to explain why. Following a top-down "policy-chain" approach was deemed insufficient when trying to explain why policies failed because it did not address critical implementation issues that existed in the "environment in which the policy implementors practice" (Lipsky 1978: 401). Thus, many critics thought that top-down approaches were ill-conceived and incomplete, often overlooking important variables in the process.

The gradual realization that implementation is a dynamic, adaptive, and ongoing process that can be influenced by both internal and external factors marks a significant paradigm shift in implementation studies and, indeed, the policy sciences. A part of this shift, bottom-up approaches emerged in the late 1970s in recognition of the limitations of top-down approaches. The main difference of bottom-up approaches was the focus on the policy problem and those affected by it most directly (Elmore 1980). The focus was on the local level where policy is ultimately delivered rather than on the policy decision. In this way, interactions and strategies of local actors were seen as key to implementation success. In observing the local interactions, there was increasing appreciation that "implementation frequently involves exchanges between organizations at different levels of government, or between centre and periphery, or between public and private sectors"

(Hyder 1984: 4). Lipsky (1978) summarised the practical benefits of a bottom-up approach:

> A focus on the work structure, in contrast, is a focus on what people do, not on an abstraction called "policy" and its fate. This approach to policy implementation may in some circumstances be more conducive to generating useful insights into what actually happens in public agencies and into the ways that policy may be made more responsive to public intervention" (Lipsky 1978: 401).

(Weale 1992) agrees: "such a perspective goes beyond comparing results with established goals and seeks to investigate what works and does not work under various circumstances."

Accordingly, Hjern et al (1978: 303) offered an alternative approach recognizing that "the conception, enactment, and implementation of governmental programs involve many individuals, groups and organizations." In contrast to top-down approaches typically concerned with single groups of actors, these scholars turned attention to the networks of individuals and institutions involved in policy development and implementation. The focus was on actors' interactions, actions, and goals at various institutional levels—the "implementation structure"—rather than on the structure of a government program.

The merit of such an approach was reinforced by others following the same networking technique. Wittrock et al (1982: 136) showed that the development of Swedish energy research policy in the mid-1970s was not orchestrated in a top-down fashion by central government: "rather, it emerged out of a process where intertwined networks of actors, both public and private, were able to exert considerable influence." The main conclusion was that:

> implementation structures exist in the sense of informal networks of interested parties before implementation proper. They might well be active in defining and forming a programme that will later reach the implementation stage, but this role

20

will not only, or even mainly, be one of effecting the contents of a decision
formally adopted by, say, a government agency or a parliament.
(Wittrock et al 1982: 133).

The key idea is that local actors and drivers can be important factors in developing and

implementing policy ideas. Bottom-up approaches ideally recognize the significance of

local ideas, multiple local and regional actors, interactions, networks, and give more

attention to the context of the implementation process.

Bottom-up methods have been criticized as failing to be guided by sufficient theory

that describes the influential factors affecting the implementation process and its actors

(Sabatier 1987). However, since bottom-up analysts depend upon interpretations of

participant perceptions and activities, it may not be possible to identify direct and indirect

influences on behaviour and outcomes of which participants are not aware (Sabatier

1987). But this concern is a limitation of qualitative research in general. Bottom-up

studies may also overstate the importance of peripheral influences and their effects on

implementation (Sabatier 1987).

In time, two main schools of implementation analysis have developed, each with their

own merits and problems, each with their own unique application and purpose:

> ...the top-down approach appears to have a comparative advantage in situations
> where (1) there is a dominant piece of legislation structuring the situation or in
> which (2) research funds are very limited, one is primarily interested in mean
> responses, and the situation is structured at least moderately well. In contrast, the
> bottom-up approach is more appropriate in situations where (1) there is no
> dominant piece of legislation but rather large numbers of actors without power
> dependency, or where (2) one is primarily interested in the dynamics of different
> local situations. (Sabatier 1987: 37)

The disagreement between top-down and bottom-up approaches "carries echoes of old

and well-rehearsed themes: rational analysis versus disjointed incrementalism, scientific

management versus organisational development" (Hyder 1984: 5). The above

21

observations suggest that top-down approaches view implementation as a linear, orderly, controlled, and formally structured process, whereas the bottom-up perception is that implementation is more of an adaptive process with less formal structure, where local variation, complexity, and uncontrollable factors play an important role.

Despite some notable differences, top-down and bottom-up approaches have been influenced by systems thinking to varying degrees. For example, Linder and Peters (1989: 48) suggest that researchers influenced by the Laswellian tradition—placing increased importance on the idea of the policy context—embraced the systems idea of "environment." A variety of earlier works (e.g. Van Meter and Van Horn 1975; Berman 1978; Hjern et al 1978; Mazmanian and Sabatier 1981; Sabatier 1987; Gow and Morss 1988) illustrate this general trend with efforts to find a generalizable approach to implementation analysis. For example, Berman (1978: 174) characterized local or "micro" implementation structures in terms of "public delivery systems" (organizations) embedded within local contexts where interactions occur (services are delivered). It follows, "the local setting is, in turn, embedded within a larger environment (e.g. general social and economic conditions) that affects the organization directly and indirectly, though the local organization generally cannot affect the larger environment."

With increasing attention given to context, bottom-up approaches challenged top-down assumptions about hierarchical organization, raising questions about the importance of scale in analysis (Berman 1978; Hjern et al 1978; Elmore 1980; Wittrock, et al 1982; Linder and Peters 1989), cross-scale dynamics (Elmore 1980; Linder and Peters 1989) and exogenous and endogenous factors related to the implementation process (Berman 1978; Mazmanian and Sabatier 1981; Linder and Peters 1989;

22

Hasenfeld and Brock 1991). As an ongoing process, implementation has also been studied with regard to the importance of feedback mechanisms, adaptation, and driving forces (Van Meter and Van Horn 1975; McLaughlin 1976; Sabatier 1987; Hasenfeld and Brock 1991). These examples demonstrate a combination of systems ideas that have over time been applied to the study of implementation as a way to deal with the complexity of implementation analysis.

In summary, key considerations emerging from this section are: 1) implementation is an ongoing process; 2) local influences are significant; 3) internal and external influences are significant and, therefore; 4) context and scale are important (social, political, institutional, and economic, etc.). These observations demonstrate the suitability and utility of a bottom-up systems view of community forest implementation—a process in which a vast network of actors and diverse localized events were the main impetus for policy before there was a formal provincial agenda.

2.3. Community-based Natural Resource Management

Community-based natural resource management (CBNRM) approaches have emerged over the past 20 years in response to the inadequacy of centralized, state managed, top-down management systems (Armitage 2005). Increasing attention is being given to the potential for communities to make contributions towards developing local solutions for resource management problems (Wismer and Mitchell 2005; Agrawal and Gibson 1999). This movement is supported by the recognition that "information, understanding and capacity for action and change, as well as for monitoring and enforcement, do not reside only within government agencies or the private sector" (Wismer and Mitchell 2005: 1). A common definition for CBNRM has yet to be developed, but can be summarized as a

23

local management regime that seeks to improve resource management outcomes by satisfying the following requirements: 1) engaging full participation of communities and resource users in decision-making; 2) incorporating local institutions, customs, and knowledge systems; 3) managing, regulating, and enforcing resources locally (Armitage 2005).

The social sciences have produced a variety of analyses of CBNRM that offer different perspectives of the human dimensions (social, cultural, institutional, economic, political) of local resource management. A collection of case studies now documents the experiences of CBNRM efforts with a heavy focus on institutional and organizational issues (e.g. Kellert et al 2000; Leach et al 1999). Berkes (2003) notes a growing interest in systems views of CBNRM problems due to the recognition that systems approaches can address the cross-scale complexity inherent in social-ecological systems. The accepted view that humans are part of complex ecosystems can no longer be supported by one-dimensional CBNRM studies, or those of purely "human" orientation. A complex array of social and ecological factors must be addressed.

It appears that the majority of case study research on CBNRM originates from the developing country contexts. However, a recent increase of works related to initiatives in more developed regions indicates that this literature is growing along with attempts to implement CBNRM approaches more widely. On an international scale, CBNRM approaches are being used in more developed regions for the management of forests, fisheries, watersheds, wildlife, and agriculture (Nelson and Pettit 2004; Duinker and Pulkki 2001; Bellamy and Johnson 2000; Kellert et al 2000; Jentoft 2000; Johnson, et al 1996).

Some Canadian examples of CBNRM highlight two main domestic applications. There has been a thrust in the area of First Nations co-management (e.g. Chambers 2004; Nadasdy 2003; Natcher and Hickey 2002). Another common focus is on hinterland community involvement in resource management in order to conserve resource stocks and improve economic conditions for rural resource towns (e.g. Wiber et al 2004; Bradshaw 2003; Pinkerton 1999; Reed 1995). Local control, promoting social and economic stability, and addressing ecological concerns are common themes irrespective of the program in question. Additionally, First Nations in Canada may be further motivated to pursue community involvement in order to achieve what has been referred to as "cultural autonomy" (Agrawal and Gibson 1999).

Armitage (2005) comments that mistaken assumptions—oversimplifications of the conditions that support CBNRM at the community level—are often advanced as a justification for CBNRM. There is an idealized notion that implementing CBNRM can solve resource management problems and mitigate conflict. While there are certainly benefits to the approach, the reality is that CBNRM adds complexity and is more difficult to deliver than state management programs (Kellert et al 2000). Implementing CBNRM usually requires a shift in power arrangements and devolution of power from higher levels of centralised authority to local levels. Current policy frameworks and institutional settings do not facilitate a speedy transition. The ability of communities to take on management responsibilities also varies through time and space. Concerns for local access to resources, equity, empowerment (Berkes 2003), and fair representation (Wellstead et al 2003) become very important as these conditions are not automatic under CBNRM. As well, it cannot be assumed that local control will lead to the equitable

distribution of costs and benefits of local resource development. Moreover, CBNRM

does not necessarily ensure the effective incorporation of traditional knowledge, the

realization of ecological goals, or sustainable resource use (Kellert et al 2000). Hence,

the particulars of CBNRM present much greater challenges that may offset its otherwise

favourable image.

Practically speaking, it should not be surprising that CBNRM "frequently falls short of

expectations" (Leach et al 1999: 225) given the lofty ideals of its proponents. Kellert et

al (2000: 706-707) further outline the complexity of the problem as having a range of

interests, objectives, and institutions at multiple scales:

> ...arguments for CNRM [are] powerful and convincing. Yet promise and rhetoric
> represent one reality, and the implementation and delivery on optimistic
> aspirations and pronouncements quite another. Achieving the goals of CNRM has
> been complicated and organizationally challenging. Effectively implementing
> CNRM necessitates a careful and difficult blending of local, regional, and
> sometimes international interests and institutions, as well as reconciling multiple
> and sometimes conflicting objectives.

Evidently, implementing CBNRM comes with its own set of problems that need to be

uncovered and resolved in order to make the most of what the approach has to offer.

CBNRM implementation challenges are reviewed more thoroughly with reference to

community forestry in the final portion of this chapter.

2.4. Community Forestry

The main body of Canadian community forest literature goes back to the 1980s. Prior

to that there were few works that dealt explicitly with community forests. While some

notable policy reviews (e.g. Sloan 1945, Pearse 1976) touched on the idea of local

control, Auden's pioneering vision for a "Forest Village" in Nipigon, Northern Ontario

was outlined in *The Forestry Chronicle* in 1944. Auden provided details for a co-

operative community forest and integrated planning and management some 65 years ago. Nothing immediately developed from these early works. The bulk of contributions in this field correspond to growing provincial interest (e.g. BC, Ontario, and New Brunswick), which peaked in the early 1990s.

The novelty of community forestry in Canada is reflected by the selection of overview articles that discuss community forest definitions, concepts, and principles (Dunster 1989, 1994; Duinker et al 1991; Duinker et al 1994; Harvey and Hillier 1994; Mallik and Rahman 1994; Masse 1995). Later works on community forestry address more specific issues in relation to forest policy and tenure reform (Haley 2002; Marchak et al 1999; Mitchell-Banks 1998; Burda 1998; M'Gonigle and Parfitt 1994), First Nations involvement (Wortley et al 2001), local control and decision making (Beckley 1998), public participation and values (Robinson et al 2001), and the implications of community forests for local and provincial economies and development (Luckert 1999; M'Gonigle 1997). There are also some examples of research-based works sponsored by various BC organizations (e.g. Anderson and Horter 2002; Gunter 2004), which have been designed for more practical applications intended to assist communities in operationalizing community forestry.

Aside from theoretical discussions, there are a few practical examples of case study research that document the experiences of aboriginal and non-aboriginal communities actively pursuing or engaged in forest management (Wortley et al 2001; Gunter 2000; Allan and Frank 1994; Betts 1997). While foresters, sociologists, economists, geographers, and political scientists have studied community forest issues in isolation, there have been few efforts to combine and apply our theoretical understanding of the

political, social, economic, institutional, resource, information, and biophysical challenges facing community forests through empirical study. Previous works have assessed some "barriers" or "challenges" to community forestry in BC and elsewhere in Canada. However, at the time of writing there are no explicit examples of community forest research that use systems thinking to pull together the empirical and theoretical issues related to its implementation, in order to achieve a more complete view of the forces at multiple scales that shape the future of community forest initiatives. This is a little surprising, in that authors of both implementation and CBNRM works—two areas of particular relevance to community forestry at present—have drawn on systems thinking to help their ideas evolve. The infancy of community forestry in Canada, indeed in North America, helps explain the fragmentation of perspectives in the Canadian literature. The following section outlines previously identified challenges to implementing community forest management through a combined review of community forest, CBNRM, and implementation literature.

2.5. Challenges to Community Forestry

Community forest implementation challenges can be viewed as occurring in one or more social and biophysical subsystems. Perceived challenges emerge from political, social and cultural, economic, institutional, resources and information, and biophysical subsystems. This approach to subsystem classification is influenced by Grzybowski and Slocombe's (1988) sociobiophysical evolution model. Delineating challenges is a messy task due to the overlap and/or complexity of influences, which likely reflects the reality of multiple factors that are intertwined and interdependent. Nonetheless, this

28

classification provides a useful way to conceptualize, arrange, and communicate

challenge information.

2.5.1 Political Challenges

The political subsystem includes phenomena related to politics, power, and policy

processes. The key challenges here are:

- weak support;
- insufficient local control;
- ineffective participation;
- poor representation;
- difficulty reaching consensus;
- poor leadership;
- questionable goals and objectives;
- challenges of existing policy; and,
- parallel policy processes.

2.5.1.1. Weak Support

Community-based management cannot be implemented without strong support and

drive (Mitchell 2002). In the first instance, the widespread implementation of community

forestry is constrained by "the reluctance of many communities, and indeed some

proportion of the population in all communities, to take on the work and responsibility

involved in community forestry programs" (Duinker et al 1991: 135). Such

determination must be shared by a core group of committed local residents, businesses,

elites, and officials as both public and political support is imperative (Van Meter and Van

Horn 1975; Allan and Frank 1994). A common willingness to pursue community

forestry is a local precondition irrespective of local capacity to manage. An inability to

garner and demonstrate local commitment can stall implementation (Gunter 2000: 159).

Communities should celebrate all successes in order to demonstrate progress and

maintain spirit, interest, and support: "Whether your groups measure progress by the

number of canoes trips, kilometres of buffer strips, or hectares of no-till farming, reaching benchmarks is important" (Mitchell 2002: 313).

It is often a major challenge to garner support from senior government officials. Senior government support for implementation is critical in establishing the legitimacy of new initiatives and recognition for local governments that will, in turn, be supported by other actors and agencies across all levels in the process (Slocombe 1998: 36; Bellamy and Johnson 2000). A bad rapport with government administrators, Ministers of Legislative Assembly (MLA) and the BCMOF (Gunter 2000: 159) will quickly take away the support necessary to implement a community forest in BC.

Full political support can be obstructed by previous policy commitments so that "governments sometimes only reluctantly embark upon policies" (Weale 1992: 48). Government hesitation can further result when higher priority commitments exist (Mitchell 2002: 295). Short-term political issues as well as competing social and economic issues are notorious for diminishing political will to implement environmental programs (Weale 1992).

Senior government support must be demonstrated through action as well as rhetoric (Bellamy and Johnson 2000). According to Margerum (1999: 186) governments sometimes "designate representatives and provide information, but many do not adjust their policies and programs in response to the strategies of the stakeholder group." This observation is based on multiple case study research conducted in the US and Australia that looks at the implementation challenges of collaborative management projects; some senior level representatives themselves believed their role in implementation to be limited:

> [government representatives] generally supported the efforts of the stakeholder groups, but tended to view their roles in terms of a one-way flow of information: The provided information, technical expertise, and advice to the group, but there was little communication or influence that the group had on their organization. (Margerum 1999: 187)

While stakeholders were able to reach consensus, poor support from higher levels of government made implementation difficult.

It can be common to encounter variation in the actual level of commitment displayed by representatives of government and other large bureaucracies. Margerum (1999: 188) comments, "even committed representatives will have difficulty getting commitment from the numerous decision makers within their organizations. Unless individual officials are personally committed to implementation, unclear goals and objectives of new programs could cause indifferent officials to take a very "hands off" approach. Thus, vital resources and authority accompany true government support (Hanna 2006).

2.5.1.2. Insufficient Local Control

Weak control over land administration is a barrier to community forest implementation (Dunster 1989). The land base must be under the authority and management of the local people, who must have the right to manage and market the forest for multiple values as is deemed suitable (Dunster 1989). As Jentoft (2000: 58) puts it: "the community as an entity must have a role in the decision-making process." Power struggles are not surprising since community forestry is an exercise in devolving power over resources from high-level central governments to local governments. Without this transfer of power and rights, however, communities do not have the jurisdiction they need to implement forest management initiatives locally. In BC and the

31

rest of Canada, provincial forest policy and tenure arrangements are directly linked to this issue of local control.

2.5.1.3. Ineffective Participation

Meaningful and direct community involvement in community forestry is necessary. Of main concern is the sharing of authority by enabling public participation in decision-making processes (Duinker et al 1991; Duinker et al, 1994; Harvey and Hillier, 1994). Participation requires mechanisms to facilitate active public involvement beyond the simple representation by appointed/elected community forest board members. The level of participation can reflect community support for the initiative; however, one must remember that those opposing community forestry may turn out in force to co-opt a process, or steer community efforts towards their own interests (Reed 1995).

The process of identifying community stakeholders can be troublesome when trying to consider all local interests so as to provide fair representation in decision-making (Duinker et al 1991; Harvey and Hillier, 1994). Mitchell (2002: 313-314) suggests that CBNRM processes should "bring everyone to the table.... Leaving a critical stakeholder out of the process at any step may cause unnecessary problems later." At the same time, having "everyone" at the table makes it harder to generate consensus, and to do so in a timely manner.

2.5.1.4. Poor Representation

At the local level it is also important to have representative bodies that mirror the community values in order to avoid conflicts that can challenge implementation (Wellstead et al 2003). Value conflicts can arise at the community level when local groups are selected by the forest industry "because they fail to correspond to the

demographics or the beliefs, values, and behaviour of the public whom they represent"
(Wellstead et al 2003: 10). A similar argument is made for interests and biased
representation due to government interference (Appelstrand 2002).

Poor representation can be especially problematic in resource hinterlands where
industry and government have traditional dominance over activities in a given resource
sector. Reed (1995) shows how a fish and wildlife co-management venture in Ignace,
Ontario was co-opted for business and provincial interests. She explains:

> In small communities, it is common for a handful of leaders to emerge who take
> part in several local decision-making bodies. The membership on the co-
> management committee was heavily weighted, however, toward those with a
> direct economic stake, so that other, less vocal elements of the community were
> no better represented on the committee than prior to initiation of co-management.
> (Reed 1995: 142)

Overall, local dependency marred efforts to implement co-management of fish and
wildlife resources. Many actors involved had double roles: some were both councilmen
and private business owners, while others were tourist operators and on the fishermen's
association. Board membership served to reinforce existing decision-making hierarchies,
and many openly admitted acting in their own self-interest (Reed 1995).

Representation is questionable when such conflicts of interests are present. This
underscores a problem where "stakeholder groups often view themselves as
representatives of the community (i.e. democratically elected) rather than representative
of the community (i.e. a sample of people reflecting the range of interests in the
community)" (Margerum 1999: 185). Individual and group representatives acting in
their own best interests can have hidden agendas that pose a real problem to
implementing successful community forests. Stakeholders that do not continuously

consult the community they represent are at risk of setting goals and objectives and using strategies that do not conform to community views and wishes (Margerum 1999: 185).

2.5.1.5. Difficulty Reaching Consensus

Generating and maintaining consensus among a diverse group of stakeholders is a major challenge for community forestry (Beckley 1998). The alignment of community objectives and environmental values is of primary importance to ensure progress can be made (Harvey and Hillier 1994). Communities that pursue community forestry must create a "shared vision and agreement on expectations and objectives... This may require significant communication and negotiation at the community level" (Gunter 2004: 10). Such local arrangements can "institutionalize conflict by incorporating sometimes diametrically opposed interests into a single management authority or decision-making body" (Beckley 1998: 742). Stakeholders must work together to generate mutual understanding of the issues to ensure a solution oriented approach. Thus, difficulty maintaining the involvement of stakeholders with a broad range of values and interests is a common pitfall. Community forestry efforts that cannot reach consensus will not be able to solidly advance beyond the early stages of community bargaining negotiation.

2.5.1.6. Poor Leadership

Given the challenges faced in CBNRM, there is a need for strong leadership in community forest initiatives (Duinker et al 1991). Strong leadership, provided by individual supporters and a dedicated core group of people willing to get it done is necessary (Slocombe 1998; Gunter 2000). With reference to leadership, Mitchell (2002) states:

> a key factor to introduce and implement an ecosystem approach is to have a leader or champion who will advocate the concept, and who will continue to work for

and support the ecosystem approach through inevitable disappointments, setbacks, and frustrations. Experience shows that a dedicated and determined leader is often the key factor related to success. (Mitchell 2002: 106)

Mazmanian and Sabatier expand on the concept by outlining the importance of both political and managerial dimensions of good leadership:

> The former refers to the ability to develop good working relationships with sovereigns in the agency's subsystems, to convince opponents and target groups that they are being treated fairly, to mobilize support among latent supportive constituencies, to adroitly present the agency's case through the mass media, and so on. Managerial skill involves developing adequate controls so that the program is not subject to charges of fiscal mismanagement, to maintaining high morale among agency personnel, and managing internal dissent in such a way that outright opponents are shunted off to a noncrucial position. (Mazmanian and Sabatier 1981: 20)

Operationalizing a community forest depends on having the right people in management positions who understand ecological and socioeconomic factors, and are dedicated and dynamic (Dunster 1989).

Many community forest management plans in BC have been built on ecosystem-based principles that are not supported by current forest policy. In many cases, the leadership of a select few dedicated to alternative management models has lead to the formation of community-based initiatives. Still, leaders are often blamed for incomplete or failed implementation and the short-comings of programs and projects. In a survey of US fish and wildlife personnel, Danter et al (2000: 542) found that "leadership of and accountability for change management were often cited by personnel as implementation issues." These authors found that ecosystem management principals were not being fully implemented due to confusion and unhappiness, tracing a direct line back to the source of the problem: poor leadership.

2.5.1.7. Questionable Goals and Objectives

The importance of having clearly stated and understood goals and objectives is widely acknowledged and cannot be overstated. Specifically, stakeholders involved in collaborative implementation efforts need to have a definite purpose, priorities, and strategic direction (Mitchell 2002; Bellamy and Johnson 2000; Danter et al 2000; Gunter 2000; Margerum 1999; Slocombe 1998; Dunster 1989; Van Meter and Van Horn 1975). That is to say they need to know what it is they want. Once the decision is made to pursue community forestry, clearly defined management goals should be articulated with explicit socioeconomic and cultural goals that express the ideas of local people (Harvey and Hillier 1994). Unclear goals and objectives can make it difficult to secure stakeholder buy-in as uncertain stakeholders will be less willing to commit to something that is vague or confusing (Margerum 1999). Even if personnel fully endorse the underlying principals of a new program, poor definition and lack of clarity confuse people and can erode support (Danter et al 2000). Moreover, those responsible for implementation must understand the objectives and standards to ensure proper implementation (Van Meter and Van Horn 1975). In other words, people must be clear on what it is they are doing and why. Conversely, in certain instances there can be a tendency to avoid clarity in order to advance a project and get it "off the ground" (Hanna 2006: 4). Adaptive approaches often favour vagueness in order to be flexible in project development (Mitchell 2002).

Societies normally pursue multiple goals and objectives simultaneously, hence, prioritization of goals and objectives is important to clarify expectations and avoid conflict when implementing policy ideas (Mitchell 2002). A predominant weakness of

36

collaborative implementation is the failure to establish priorities and a course of action: "Rather than prioritizing actions, many groups combined the actions stemming from the full array of perspectives and concerns. The resulting strategic plans became "wish lists" rather than a set of strategic objectives and implementation steps" (Margerum 1999: 185). Community members, especially community forest planning committees, must be realistic as to what is attainable in terms of goals and objectives. This includes a willingness to be "pragmatically opportunistic" (Gunter 2000: 159). Communities must sometimes be willing to capitalize on smaller, seemingly undesirable opportunities in light of what might happen if they do not; subsequent plans can be made to build on such opportunities in pursuit of the primary long-term goals of the community forest. It does seem, however, that this might lead communities to compromise their goals when things seem uncertain and could also put them in a precarious bargaining position.

Still, goals that are too idealistic or lofty could make implementation impossible. Being realistic and focussed is especially important when resources are limited (Slocombe 1998). Communities need to realize that community forestry is a long-term activity that requires full commitment from a community and its council (Dunster 1989). Mitchell (2002: 314) comments that those responsible for community-based implementation should "think small. The smaller the area, the easier the partners can relate or connect to it." Indeed, this is another reason why the size of the community forest is important as there are limits to community capacity (Duinker et al 1991).

Community forest initiatives need a clear mission statement to create cohesion and help to provide direction and organization (Harvey and Hillier 1994). Once the purpose and priorities are clear, actual implementation strategies must be worked out as to how

the plan will be operationalized. Stakeholders often exchange information, identify common goals and objectives, and even develop a plan, without clearly identifying an approach to implementation (Margerum 1999: 188). Strategies for reaching the set goals and objectives must clearly define how plans are to be executed.

2.5.1.8. The Challenge of Existing Policy

Implementing community forestry may be a farfetched goal in the absence of supporting policy that enables community involvement. Even with senior government support, coherent statutes that structure the implementation process are required for successful implementation (Mazmanian and Sabatier 1981). This would include complementary arrangements in terms of supporting policy, structures, and resources to facilitate community initiatives (Bellamy and Johnson 2000). Recent changes have improved the situation, but it remains a significant challenge for communities in BC.

Although the 1988 *British Columbia Forest Act* was amended to include provisions for the CFA, few such tenures were awarded as only a small number of communities had sufficient unallocated Crown land in the surrounding areas (Burda 1999). To highlight this point, "only those communities with available AAC in their district/region were eligible" for a community forest when the Community Forest Pilot Project (CFPP) was introduced under the CFA (Burda 1999: 2). Burda comments on the advances and limitations of the new policies:

> The CFPP and CFA legislation represents a significant change to tenure policy in that the new community tenure provides local holders with the opportunity to establish their own AAC, practice alternatives to industrial forestry and manage for non-timber values. Burda (1999: 2)

Still, these additions fall short of the more fundamental changes to the tenure system advocated by many authors (Duinker et al 1994; M'Gonigle 1997; Beckley 1998; Burda

38

1999; Marchak et al 1999). Land availability is a key barrier to fostering community forests in BC. Of major concern is the distribution of Crown land and rights previously granted by the province to large corporations. Allan and Frank (1994) noted that most municipalities do not have non-allocated forest land surrounding their communities and so reallocation may be necessary. In terms of the availability of forest land and AAC, community forests and other non-industrial tenures have been marginalized in favour of larger operations (Burda 1999). Many communities lie in wait for government policy to evolve.

Many of the challenges identified at the provincial level relate directly to the policy context and the limited forms of tenure available that are conducive to community forests. Much of the existing legislation and regulatory framework constrain local efforts. For instance, community forests operating under FLs or TFLs are constrained by minimum AAC regulations imposed by the province (Burda 1999). In many cases, communities have low capacity and also seek to practice ecosystem-based forest management, which usually includes reduced harvests and alternative harvesting techniques. Communities need a form of forest tenure that enables them to set their own AAC (Gunter 2004). Some communities opted for Forest Licences in lieu of the CFA. Clearly, these tenures are meant for large-scale high-volume industrial timber production, not community forests.

Volume-based tenures do not confer management rights, only cutting rights. These tenures limit the control of the community to set their own harvest levels according to their own management plans. Such licenses are designed to generate provincial revenues, and are supported by a philosophy of "log it or lose it" (Burda 1999). Nor does a 15 year

term for a FL secure enough time to make the practice of long-term community-based management worthwhile (Burda 1999). This is also an issue in other Canadian jurisdictions. Tenure length and security have also been identified as major challenges to the more widespread proliferation of community forests in Ontario (Harvey and Hillier 1994) and New Brunswick (Betts 1997).

The appropriateness of community forest stumpage rates set by BCMOF has been questioned. Stumpage fees are paid to the province for harvesting public timber. Community forest managers at Burns Lake, BC, have made the case that stumpage rates are set too high and limit alternative techniques necessary for more sustainable forms of forest management (Manning 2000). The issue is that timber values are determined based on industrial forestry approaches; innovative and more sensitive harvesting actually cost more, and current regulations are not designed to facilitate such practices but actually promote clear-cutting.

Essentially, more sustainable forms of community forestry are constrained by archaic provincial regulatory frameworks that no longer serve community values. There is a need for flexibility and innovation in new forest policy that supports alternative tenure arrangements and reasonable stumpage fees (Duinker et al 1991; Duinker et al 1994; Manning 2000). Even though the BC government is now showing some support, managers need more freedom to develop the largely experimental system in relation to local context and overarching provincial policies.

2.5.1.9. Parallel Policy Processes

Beyond the existing provincial policy frameworks, changes in parallel policy processes can hamper implementation of new and ongoing efforts in community forestry.

According to Hessing et al (2005: 217), "changes of government may lead to changes in the way policies are implemented without a change in the policy itself. The appointment of new cabinet members and deputy ministers, for example, may reshape the administrative regime or result in a different attitude taken toward the enforcement of existing rules." Indeed, previous experience indicates that political changes can undermine support causing projects and plans that were previously underway to be dropped or else gradually decommissioned through attrition. BC is no exception; rather, its provincial politics are notoriously volatile.

2.5.2. Sociocultural Challenges

The sociocultural subsystem includes phenomena that relate to or characterize human society and its organization, including the interactions of individuals and groups. The dynamics of culture, class, demography, and social problems or issues fall within this subsystem. Key challenges are:

- heterogeneity of sociocultural conditions;
- poor relations between individuals or communities; and,
- larger social conflicts.

2.5.2.1 Heterogeneity of Sociocultural Conditions

The variation of social and economic conditions makes successful implementation increasingly difficult (Mazmanian and Sabatier 1981). Health, education, and standard of living vary from place to place. There is often considerable demographic heterogeneity in terms of culture and interests (Kellert et al 2000), which contributes to the complexity of the social subsystem. Cultural differences can influence what is viewed as acceptable in terms of the means of implementation (Mitchell 2002). Specifically, this relates to the way power is structured and exercised to achieve implementation. Some cultures prefer

command and control approaches while others favour flexibility and personal discretion (Mitchell 2002). The more sociocultural variation there is in a society, the harder it can be to introduce new policy ideas that will be effective and efficient.

2.5.2.2. Poor Relations between Individuals or Communities

Differences in the sociocultural fabric can create the "social fissures, conflicts, inequities, and power-differentials" that typify most communities (Jentoft 2000: 58). Indeed, interest group and stakeholder conflict is the norm, not the exception (Kellert et al 2000). Personality differences and long histories of antagonism fuel deep-rooted social conflicts that can transcend time and space (Margerum 1999). The absence of trust and credibility is especially damaging. Poor relations between individuals/community groups can derail the best made plans, especially in situations where collaboration is requisite. Good relations with neighbours in the community, as well as those in other surrounding communities are important to community forestry (Allan and Frank 1994).

2.5.2.3. Social Conflict

On a larger scale, societal awareness and the perceived importance of social issues influence the response to the problem. As both an endogenous and exogenous condition, the perceived importance of particular social problems in the public domain influences the degree of political attention given to any problem (Mazmanian and Sabatier 1981). Social conflicts that gain momentum can be a considerable force that steer attention to pressing social issues. But this can also be a disruptive force when large-scale conflicts remain unsettled. In BC, the "war in the woods" over the contrasting forest interests and values of loggers, environmentalists, First Nations, and industry represents a significant

multifaceted social conflict that has had far reaching implications over the past few decades.

2.5.3. Economic Challenges

The economic subsystem includes phenomena related to economy (e.g. trade, markets, competition, the dynamics of supply and demand, labour). Key challenges are:

- competition;
- lack of supporting industry;
- hinterland economy;
- no economies of scale; and,
- the softwood lumber dispute.

2.5.3.1. Competition

With the emergence of community forestry in BC, several communities are vying for lands to be redistributed under the 20 percent timber allocation. This could not be more apparent considering the number of communities that initially showed interest in the CFA. Communities interested in CBNRM often have regions that overlap, which can be a challenge in situations where there is more than one physical community with interests in a nearby patch of forestland (Agrawal and Gibson 1999). Ultimately, competition between communities and industry means that some communities will win and some will lose. Local economic dependence on existing mills may negate community forest efforts (Betts 1997).

2.5.3.2. Lack of Supporting Industry and Hinterland Economy

At the regional scale, community forests require access to balanced timber supplies that are close to markets (Allan and Frank 1994). This point reveals the benefit in having nearby value-added industries to provide a market for community forest logs. Similarly, Dunster (1989: 9) suggests that "it is important to develop and maintain a diversified

43

local economy that can take advantage of a range of economic activities." Supporting industry is necessary for markets, but also technical support for product development (Duinker et al 1991). However, these comments present a dilemma. Community forests are often pursued for local economic development, where significant local markets and value-added are yet to be developed. Historically, many hinterland resource towns in BC are oriented to (and dependent upon) supplying distant markets with high volumes of logs. This satisfies a precondition of forest sector dependence necessary for community forest success (Gunter 2004); however, this has had the effect of limiting regional timber that could otherwise be available to smaller buyers, which has limited local economic diversity.

2.5.3.3. No Economies of Scale and Softwood Lumber Dispute

Linkages to regional, national, and international markets influence the stability of resource communities and, therefore, market-oriented community forests. Few communities will be able to command the capital to create the economies of scale necessary to compete in the globalized economic systems. Local operating costs are directly affected by high stumpage rates, which are "at the heart of the US/Canada softwood lumber dispute" (CVFC 2005). BC Minister of Forests Gordon Wilson (2001) made the following comments to the Burns Lake Community Forest president, which highlights the implications of being embedded in a larger economic and political system:

> On March 31, 2001, the Canada/US Softwood Lumber Agreement (SLA) will expire. Given the status of the SLA, I would prefer to delay the implementation of any revenue collection alternatives that could potentially have a negative impact on the SLA negotiations. Consequently, please be advised that the Ministry of Forests will not be considering any alternative revenue collection proposals for CFPAs until further notice. (G. Wilson 2001)

Economic ties from regional to international scales can deeply influence the viability of community forests locally. Without access to timber, markets, and supportive value-added and processing industries, the costs of business are high for small entities attempting to break into the current forest economy. The softwood lumber dispute is having direct local impacts on community forest operations through its links to the stumpage appraisal system.

2.5.4. Institutional Challenges

The institutional subsystem includes both formal and informal institutions. Formal institutions and their characteristics relate mainly to established organizational structures (e.g. government offices, private organizations, banks, public groups). Informal institutions are human arrangements that embody shared practices, customs, ideas, beliefs, and relationships (e.g. teaching and learning paradigms). Related challenges include:

- competing paradigms;
- challenges to the community as an institution;
- boundary and size challenges;
- challenges of the central organizing body;
- challenges of bureaucratic organizations; and,
- lack/inconsistency of media attention.

2.5.4.1. Competing Paradigms

The success of community forests depends largely on the socio-political climate at any given moment. Progressive reform depends on various actors who favour CBNRM policy and share a philosophical approach that supports devolution (Harvey and Hillier 1994). In this way, the shift to CBNRM can be viewed as part of a larger paradigm shift said to be occurring in Canadian resource management (Robinson et al 2001). A

paradigm includes the common perceptions, concepts, theories, and acceptable methods held by a group of people, which combine to form a prevailing model that provides direction for human activities (Kuhn 1970). Problem definition and solutions follow the established tradition until it is challenged and overturned by new developments accompanied by conflict and turbulence.

Resistance to the community forest paradigm is apparent at various levels in the institutions responsible for managing public resources. Duinker et al (1991: 135) suggest that there will be "resistance of some members of the forestry fraternity to new ways of implementing forest management in Canada." These barriers could be especially difficult to overcome as government bureaucrats and industry managers have vested personal interests that challenge emerging forest management models (Beckley 1998).

Pinkerton (1999) points out that a similar situation affects CBNRM efforts in BC fisheries. A small group of large corporate clients has dominated fishing policy of the Department of Fisheries and Oceans, making it difficult to implement community-based management:

> In the commercial sector, those having the greatest physical plant investments, the most highly capitalized vessels, and the longest history have been perceived as the major client group that Department of Fisheries and Oceans is supposed to serve. Thus, they have tended to have the greatest influence on fish harvesting policy, even though officially they are not supposed to own more than 12% of fishing licenses. (Pinkerton 1999)

This situation is also encouraged by the fact that government finds it easier to manage a small group of large licensees rather than many small operators. Governments have a tendency to conduct single-species management for maximum biological or economic yield instead of managing for a variety of species and ecosystem processes (Pinkerton 1999). In BC forestry, the actions of senior government and large-scale corporate players

in the industry are mutually-reinforcing, serving to entrench the scientific/industrial forestry paradigm. Communities that seek to implement smaller, multi-valued, ecosystem-based forest management appear to be in direct opposition to the values and practices of senior government, professional forestry, and industry that have long controlled forestry in BC.

2.5.4.2. Challenges to the Community as an Institution

Successfully implementing a community forest presupposes the existence of strong community spirit or a sense of community. This sense of community necessary for CBNRM is believed to be created in communities where people share "kinship, culture, and history" (Jentoft 2000: 56). Fewer people sharing space at a small spatial scale (as in many Canadian forest resource towns) provides more opportunity for frequent interaction and may contribute to group distinctiveness (Agrawal and Gibson 1999). A sense of community or belonging to a community depends on 1) local recognition of common bonds, interests, and experiences, and 2) the ability to identify a distinct community area (place) and group of people that together embody these common things.

However, communities do not always exist as tight-knit groups of people with similar history and values who live in a distinct area. A variable scale of analysis may reveal divisions within communities that constitute sub-communities or factions that hold different values and interests (Leach et al 1999). Agrawal and Gibson (1999) explore social homogeneity, spatial scale, and shared interests and norms as factors that contribute to sense of community and, theoretically, promote local decision making in CBNRM. These authors make the important point that there is a "widespread preoccupation with what might be called 'the mythic community': small, integrated

47

groups using locally evolved norms to manage resources sustainably and equitably. Such characteristics capture the realities of few, if any, existing communities" (Agrawal and Gibson 1999: 640). The realities of "the community" in this regard, and our understanding of the institutional dimensions of communities, challenge the implementation of CBNRM initiatives like community forestry.

2.5.4.3 Challenges of Boundary and Size

It is important to identify community boundaries to form a sense of place among residents. Likewise, it is important to clearly identify community forest lands. Dunster (1989) suggests that community forest lands must be clearly delineated with public input and must be formally designated as lands beyond town council land use decisions. This promotes community recognition of the forest and helps to protect such areas from competing land uses. Volume-based tenures are thought to be inferior to area-based tenures for this same reason: "with no specific area of land, local citizens cannot feel attached to (and most are unaware of) a local forest" (Burda 1998: 12). Management units should "reflect distinguishing characteristics of a region that have significance to people within and outside the region" (Slocombe 1998: 34). Residents need to be able to identify their community forest within their community to create awareness and support.

The size of the community forest must be matched to the capacity of the operation in terms of available capital and labour (Dunster 1989). Duinker et al (1991: 132) agree that "spatial scale" or size is important as there are limits to community capacity for building and managing infrastructure. Size also relates to available timber supply, the harvesting of which often provides the majority of forest-derived revenues (Duinker et al 1994). In turn, local timber supply levels affect the potential for local value-added to develop,

which is an important aspect of local economic development strategies associated with community forestry. The size of the community forest must be matched to local management capacity and timber supply necessary to ensure the implementation of a tractable and viable operation.

2.5.4.4. Local Central Organizing Body Challenges

Community forests fail in the absence of a solid local core institution. A central body of respected people must be formed to administer the community forest in a transparent and efficient manner, with equal and credible representation that reflects community composition (Gunter 2004; Harvey and Hillier 1994; Dunster 1989). A lead agency with poor credibility will not gain the acceptance and trust of local residents.

Developing new organizational bureaucracies can be a difficult task. Based on experiences in northern Ontario, the use of pre-existing administrations and organizations (municipalities and First Nations) can be beneficial to streamline the establishment of the community forest (Harvey and Hillier 1994). In a comparative study of CBNRM programs in developed and developing countries, Kellert et al (2000) found that the level of institutional and organizational development in developed countries facilitated the implementation of CBNRM models because existing structures and agencies could be utilized. Where strong networks are present, existing administration systems may have potential to achieve the desired and necessary effects without creating new bureaucracies.

2.5.4.5. Challenges of Bureaucratic Organizations

Organizational culture clashes between the various agencies involved in implementation can prove to be a significant challenge (Van Meter and Van Horn 1975; Hessing et al 2005). This can affect relations within and between institutions at multiple

scales that possess different amounts of power, different goals and interests, or that support different paradigms. A program that has different goals than the assigned implementing agency is unlikely to be fully implemented, if at all. "In many situations there is little option but to assign implementation to existing agencies that may be ambivalent or even hostile" (Mazmanian and Sabatier 1981: 11).

When a new resource management program is introduced, existing institutions will likely resist change and try to direct decision making to uphold existing bureaucratic structures, flows, and benefits (Waage 2003). Turf conflicts due to interagency competition and jurisdictional overlap can create barriers. According to Hessing et al (2005: 217), "for many agencies, implementation may simply be another opportunity for continuing struggles over policy aims and objectives that they may have lost at earlier stages of the policy process."

Mazmanian and Sabatier (1981: 10) describe implementation as being affected by the "extent of hierarchical integration within and among institutions", which refers to the problem of achieving coordination among semiautonomous agencies and the number of "veto or clearance points" between decisions and realized objectives (Mazmanian and Sabatier 1981: 10). Essentially, this view assesses the number of points at which a policy idea can fail as it develops due to bureaucrat intervention. Implementation is influenced by organizational cultures that either promote competition or cooperation (Mitchell 2002). As well, variation in implementation across jurisdictions and regions can occur due to the use of judgement and discretion on the part of officials overseeing the implementation process (Mitchell 2002).

Implementing community forestry depends on the willingness of agencies and their staff to be agreeable and flexible. Beckley (1998: 742) states "there is often a great deal of bureaucratic inertia involved in implementing experimental programs" due to the amount of energy and resources required to implement new management models. Conversely, if so inclined, higher level officials can assist with implementation by providing technical support and consultation or by providing necessary resources (Van Meter and Van Horn 1975). Bureaucratic resistance to change and new information is common due to rigidity and lack of "adaptive capacity" or "a critical aspect of resource management that reflects learning and an ability to experiment and foster innovative solutions in complex social and ecological circumstances" (Armitage 2005: 703). Limited influence of communities to command the behaviour of complex bureaucratic systems at all levels is "a major and consistent obstacle" (Kellert et al 2000: 713).

2.5.4.6. Lack/Inconsistency of Media Attention

Mass media institutions have been identified as an important influence on the implementation process (Mazmanian and Sabatier 1981). Public and political support for an issue tends to fluctuate in parallel with the amount of media coverage over time. As an endogenous factor, media institutions are seen as a "crucial intervening variable between changes in socioeconomic conditions and perceptions of those changes by the general public and, to a lesser extent, political elites" (Mazmanian and Sabatier 1981: 16). As a societal institution, the media relays information and helps to create awareness for issues. However, inconsistent media coverage is a real implementation challenge because it undermines ongoing political support (Mazmanian and Sabatier 1981), which is doubly challenging considering the short memory of the masses. Wider attention can

sway forces in favour of the often small town community forest initiatives that can otherwise remain unnoticed.

2.5.5. Resource and Informational Challenges

The resource and informational subsystem includes tangible and intangible phenomena that represent some conferred human-value or usefulness. This subsystem includes the distribution and transfer of such resources within human society. In this sense, challenges associated with financial, information, skills/training, staff, capital, equipment, and technological resources all fit with this subsystem:

- lack of resources;
- lack of information/common access to information;
- difficulty incorporating different kinds of information; and,
- poor communication.

2.5.5.1. Lack of Resources

Inadequate resources necessary for proper implementation is a notable challenge (e.g. Gunter 2004; Bradshaw 2003; Bellamy and Johnson 2000; Margerum 1999; Duinker et al 1994; Harvey and Hillier 1994; Dunster 1989; Van Meter and Van Horn 1975). In general, CBNRM requires people with a range of knowledge, education, training, and technical skills, particularly related to the social and environmental benefits and operationalizing community-based management. Since community forestry is really a small business venture, it is important to have people with business sense and experience who can develop a sound business plan suitable for obtaining funding (Gunter 2004). Finding people with experience in public organization and negotiating for local and extra-local dealings can be a challenge (Jentoft 2000). Oftentimes, skilled personnel live within the communities where industrial forestry is active. Alternatively, these

individuals and groups could be involved in community forest management. However, where skilled labour and capital needs to be developed, lack of community resources poses a major barrier to community forest management. For example, Burns Lake Community Forest reported that struggle during the start-up phase was due in part to low funding and the subsequent overdependence on a volunteer network which was strained by a high "burnout rate" (Bradshaw 2003).

Indeed, an appropriate level of human and physical resources often requires financing. Previous authors suggest that there is a need for significant external funding in the start-up phase, but that self-sufficiency should be the end goal (Dunster 1989; Duinker et al 1994). Indeed, "meaningful revenue autonomy" is necessary to ensure a high degree of financial independence and reinforce local control (Harvey and Hillier 1994). Mazmanian and Sabatier (1981) state:

> a threshold level of funding is necessary for there to be any possibility of achieving statutory objectives, and the level of funding above this threshold is (up to some saturation point) proportional to the probability of achieving those objectives. Mazmanian and Sabatier (1981: 10)

2.5.5.2 Lack of Information or Common Access to Information

As Slocombe (1993: 619) points out, "planning and management presupposes information on an ecosystem." However, it is common to encounter challenges related to "collecting, processing, and incorporating scientific knowledge into policy processes" (Hanna 2006: 5). Information must first exist before it can be found and handled. The nature and origin of the raw data, as well as the form it takes for information transfer can make it difficult for implementing agencies to get information of sufficient quality and quantity.

In general, lack of adequate information on a resource problem or set of issues contributes to the ignorance among governments and stakeholders (Bellamy and Johnson 2000). In developing an understanding, ample information often exists but requires organizing and synthesizing (Slocombe 1998: 35). Moreover, information quickly becomes outdated in rapidly changing ecosystems. Developing a community forest necessitates current and reliable information about the forest ecosystem (Gunter 2004). Since building strong datasets takes time, there can be a constant information lag for implementers to contend with.

The learning curve for innovative community forest managers can be quite steep (Beckley 1998). Trying to deal with too much information can lead to "information overload" thus stalling implementation. As prolonged data collection efforts and scoping periods are sometimes considered stalling tactics (Hanna 2006), effective implementation requires focussed and efficient data handling.

Sharing information by creating common datasets can avoid disagreement about the facts and working assumptions in resource management (Mitchell 2002). It also can provide an opportunity for stakeholders to increase their understanding of the different perspectives used for analyses. Yet the benefits of common information work under the assumption that each stakeholder will know how to use the information and also incorporate it into decision making, neither of which are automatic. There are definite challenges with "informational asymmetries" (Weale 1992) due to the fact that all parties do not always have equal access to the necessary information. In this way "there is not an even playing field for information" (Mitchell 2002: 297); the public, industry, and government are not always working with the same information. Since "knowledge is

power" access to information alters the balance of power so that some participants "may be able to facilitate or frustrate implementation activities" (Mitchell 2002: 297). For example, governments (especially in Canada) often seek to control the release of data and information as a strategy to minimize political risks (Pinkerton 1999). Importantly, even if data is made available it can still be inaccessible if it is in a form that is too technical, fragmented (Hanna 2000), or expensive to be useful to users.

2.5.5.3 Difficulty Incorporating Different Kinds of Information

Collecting and incorporating different kinds of information is also a challenge, especially for community forestry, which generally seeks to use different sources and forms of knowledge in forest management (Beckley 1998). It is commonly held that utilizing all sources and types of knowledge can improve resource management practice (Allan and Frank 1994; Buchy and Hoverman 2000; Beckley 1998; Slocombe 1998). For community forestry, this includes both aboriginal and non-aboriginal local knowledge as well as technical knowledge related to all aspects of forest management (Gunter 2004). Resource managers and scientists remain sceptical of the merit of traditional knowledge and it can be a considerable task "to seek out ecologically sensible practices and knowledge from the mixture of superstition, beliefs and folk-science" (Berkes and Folke 1998: 14).

Nevertheless, information can be gathered from a variety of groups (e.g. First Nations, local foresters, trail users, hunters and anglers, naturalists) who possess an intimate knowledge of local areas and of the changing conditions of natural systems (Beckley 1998). Others (Allan and Frank 1994: 282) concur that the public offers "valuable lay knowledge and subjective perceptions" that will improve the information base for

managers. Integrating all of these streams of information for management purposes can prove difficult.

2.5.5.4. Poor Communication

Poor communication is truly a factor that influences all levels and stages of the implementation process. Whether it is a problem of the bureaucratic structures in transmitting information (Van Meter and Van Horn 1975) or a problem related to the nature of the data itself (Hanna 2000; Kellert et al 2000) (i.e. transferring technical/scientific data to a lay audience) it is a universal challenge that can add an unnecessary degree of complexity and confusion to apparently simple matters.

Open communication depends on the degree of freedom that individuals have to communicate with others, both inside their network or organization, and outside (Van Meter and Van Horn 1975). The complex and difficult task of communicating information from one level to another and across agencies is compounded by the unintentional and intentional distortion of the message as it is being relayed (Van Meter and Van Horn 1975). This includes situations where an interpretation of information varies over time from a single source or variations occur across multiple sources at the same time. Assuming that problem definition and goals and objectives are clear, poor communication can obscure the issues and lead to incomplete implementation or failure (Danter et al 2000).

Regular dialogue is critical as the timing of communication and the receipt of important information influences decisions that affect how implementation proceeds (Hanna 2000). Slow or infrequent communication between lower and higher levels of government can slow processes and challenge program implementation. Such was the

case in Burns Lake where harvesting of beetle infested timber was stalled due to poor communication between the BCMOF and community forest managers (Manning 2000). This resulted in lost revenue, lost time, and decreased community moral. The people of Burns Lake waited months for BCMOF to answer their queries. Thus, communication must happen in a timely manner to enable forestry operations to proceed within local ecological and economic time constraints (i.e. logging before the beetle infestation).

In other situations, "good" communication is thought to be necessary in building a rapport with and maintaining communication with community neighbours (Allan and Frank 1994: 723). Indeed, the quality of communication between individuals and groups permeates all interactions and can influence the efficacy of community forest management outcomes. In this way, communication could be addressed at all levels.

2.5.6. Biophysical Challenges

The biophysical subsystem includes biological, atmospheric, geological, and hydrological phenomena that can make community forest management challenging. Examples include:

- poor forest health;
- poor timber profiles; and,
- poor site conditions.

2.5.6.1. Poor Forest Health, Timber Profiles, and Site Conditions

Challenges of the biophysical domain relate mainly to the state of forest health, including the biophysical influences that affect forest ecosystems and, therefore, community forest planning and operations. Poor forest health can challenge forest productivity and the quality/quantity of standing timber which, in turn, supports community forest activities. The forest must support a variety of consumptive and non-

consumptive forest uses (Duinker et al 1994). For example, this could include a forest ecosystem that supports timber, water, edible and medicinal products, and aesthetic and recreation values. In turn, this will help to support diversification, a key complementing element of community forests. The size of the forest land base and timber supply is important to provide timber for sales which will likely generate the bulk of revenues (Duinker et al 1994).

The optimal forest for community forestry should be diverse in terms of tree species and age class, have ample good quality timber, a variety of landforms, and good site quality in terms its soils and productivity (Allan and Frank 1994; Matakala and Duinker 1993; Duinker et al 1991). However, forest lands of this sort are increasingly difficult to find near communities. Droughts, wild fires, and pest infestations associated with climate change are negatively affecting forest health (Parfitt and Garner 2004). Moreover, certain industrial forestry practices (i.e. clearcutting or "variable retention") have changed forests by altering their composition, function, and structure and threaten vital ecological services (Sierra Club of Canada n.d.). In this way clearcuts lead to the loss of trees but also—and perhaps more importantly—the loss of diverse conditions created by the trees (Kimmins 1992). Rural forest resources have, in some instances, been severely degraded by highgrading and inadequate regeneration (Duinker et al 1991), which requires significant rehabilitation to create the kind of forest conditions necessary for a healthy forest and viable community forest. Community forests composed of such lands will be dealing with a forest uniform in age and species composition for a number of years (Duinker et al 1994). Such forests are also less resilient.

Whether a community seeks multiple forest values or mainly timber values, those assuming control over heavily altered or degraded forest lands will have to rehabilitate such forests to functioning and resilient ecosystems that produce the range of values they desire. There may be some variation in management approaches as not every community will seek ecosystem-based forestry; indeed there are examples of more industrial community forests (e.g. Revelstoke). Still, a healthy forest is one cornerstone of a successful community forest.

2.6. Summary

This chapter reviewed three bodies of literature relevant to community forestry in order to: 1) examine the nature of implementation as a dynamic process that is influenced by a variety of factors originating at multiple scales; 2) present previous approaches to implementation analysis and consider the relevance and utility of systems thinking with regard to the analysis of community forest implementation; 3) provide a general overview of implementation, CBNRM, and community forestry research; 4) consider the need for empirical study and holistic interpretation of issues and problems related to community forestry based on a gap in previous literature, and; 5) survey previously identified challenges to be used in building the analytical framework. The following chapter describes the methodology for the study and outlines the analytical framework.

3. METHODOLOGY: A SYSTEMS VIEW OF COMMUNITY FOREST IMPLEMENTATION

3.1. Overview

This chapter outlines the theoretical foundations, methods, and limitations of the study. Grounded in a review of relevant literature, the study combines elements of systems thinking with a bottom-up approach to implementation in order to assess the motivations for and challenges to putting community forestry into practice.

The research process (Figure 1) began with inductive and iterative activities to uncover ideas about the topic, research questions, working theories of the problem, and research design elements. The process became increasingly structured as an understanding of the problem was developed and specific facts were collected to test more refined hypotheses. Such "data reduction" commonly occurs throughout the course of qualitative projects, as the researcher selects, focuses, simplifies, abstracts, and transforms data (Miles and Huberman 1994). In this way, the research was an evolving and adaptive process.

3.2. Topic Definition, Literature Review, and Research Design

Strong case study research designs are essential to guide and focus evolving research (Yin 2003). This includes deciding on the research question(s), theory development, and defining the unit of analysis. Together the elements of the research design represent a "theory" of what is being studied, which provides a "blueprint" that will help delineate what data to collect and analytical strategies (Yin 2003: 29).

The main research questions emerged from the review of community forest, CBNRM, and implementation literatures. The literature stimulated a certain "theoretical

sensitivity" (Strauss and Corbin 1990) and understanding of key concepts that helped

inform the choice of a bottom-up, systems approach for studying community forest

implementation. The literature review was also used to construct theoretical propositions

for the study.

Figure 1. Steps in the Research Process
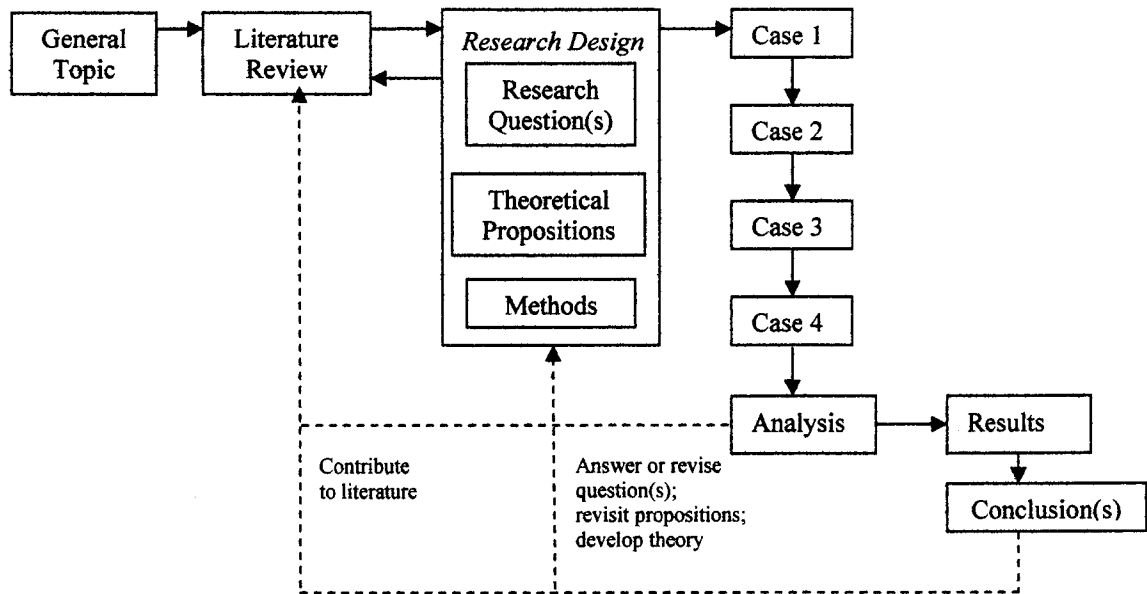
A multiple case study design was chosen to account for the temporality of the

implementation process. During a brief scoping phase, seven community forest groups

(five on Vancouver Island and two in the interior) were contacted by email to assess local

experience and interest in participation. It was desirable to find communities/groups that

had similar origins and management approaches as well as the willingness to be involved.

Also, practical considerations for data collection lead to the focus on southern BC. Four

community forest initiatives were selected—Creston, Cortes Island, Malcolm Island, and

Denman Island—each in a different stage of development (e.g. relative success,

challenged, and unsuccessful). The three island communities are more typical of BC's

socialistic coastal communities, while Creston reflects the more conservative values of resource communities within BC's interior. Such cases made it possible to draw from a broad range of local experience with community forestry. Case selection for multiple case study research is often based on conceptual grounds to purposefully represent variations or contrasts across cases (Miles and Huberman 1994). Also, each of these communities has long pursued community forestry and ecosystem-based forest management. Each was an active forerunner of the more recent provincial process; none were part of the Community Forest Pilot Program.

This research has the added benefit of collecting data from multiple cases in order to make analytic generalizations (Yin 2003), which adds reliability to carefully conducted case studies. Importantly, case studies make generalizations to theory, not to a population: "previously developed theory is used as a template with which to compare the empirical results of the case study. If two or more cases are shown to support the same theory, replication may be claimed", akin to the use of multiple experiments that replicate findings (Yin 2003: 33). An inclusive list of challenges was compiled based on the synthesis of selected literature. An interview questionnaire was constructed using open-ended questions and a conversational format to encourage a flow of information (Appendix 1).

3.3. Data Collection and Preliminary Analysis

Correspondence with community forest directors/committee leaders took place from March to May 2005. The final cases were selected by April 2005. The field schedule was established in advance and provided approximately one week in each locale to conduct interviews and site visits. Field work was completed during June and July 2005.

Yin (2003) stresses the necessity and value of using a case study protocol in conducting a multi-case study. The protocol "contains the instrument as well as procedures and general rules to be followed" while conducting the case study (Yin 2003: 67). This can include reminders to enhance data collection (e.g. kinds and sources of data to be collected; individuals to be interviewed) and make field work more efficient. The case study protocol also helps to prepare the researcher and maintain consistency in data collection across cases, thereby bolstering the reliability of the study. This is important given that collecting case study data from participants in the field can be challenging and time-consuming (Cavaye 1996). The protocol was a useful organizational tool as site visits and interviews were conducted on a rigorous schedule.

In keeping with a bottom-up approach, data collection began with local actors and networks as the primary focus, and then moved upward to the provincial level. This included directors and committee members from community forest organizations, representatives from municipal, regional, and provincial governments, First Nations spokespersons, and industry. Key informants in each community were asked to identify additional participants. In some instances participants had received prior notice, while in other situations cold calls were made based on a list provided by key informants. Using the snowball method, additional participants were added to diversify the perspectives represented.

In total, 30 semi-structured interviews were conducted at interviewees' homes, offices, and in public settings as requested. Several participants specifically requested to be interviewed in public settings to maintain transparency and avoid suspicion within the community. Interviews averaged about one hour apiece. A digital voice recorder was

used during interviews with consent from the participants (25 of 30 interviews were recorded) (Appendix 2). All but three interviews were conducted in person, which made it possible to observe nonverbal reactions to enhance the understanding of the verbal answers (Kvale 1996).

Recorded interviews were transcribed verbatim for accuracy and coding. Notes taken during the interviews were also used for clarification during review of the voice recordings and transcripts. Field notes were also kept to document observations from site visits.

In addition to interviews, other sources of evidence were used to corroborate facts and findings (Yin 2003). A key strength of the case study in this regard is its "ability to deal with a full variety of evidence – documents, artifacts, interviews, and observations" (Yin 2003: 8). The main sources of data included:

1) interviews with community forest stakeholders;

2) documents, i.e. administrative documents, written management plans, proposals and feasibility studies, letters, newspaper articles and periodicals, and;

3) direct observations and photographs used to document community scenes, community forest sites or proposed sites, forests and cutblocks, and offices where applicable.

Yin (2003) describes the importance of using a triangulation approach with case study research:

> …the most important advantage presented by using multiple sources of evidence is the development of *converging lines of inquiry*… Thus, any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on several different sources of information, following a corroboratory mode. (Yin 2003: 98)

Data triangulation was also used to overcome problems related to poor memory recall of participants. Interviews were the main source for challenge/motivation data, and documents and observations were used to verify findings and build contextual understanding.

3.4. Developing the Analysis and Conclusions

Data analysis centres on a set of theoretical propositions (Table 1) aligned with the main research questions as an overall analytical strategy (Yin 2003). The analysis aims to develop and confirm existing theories related to the challenges to and motivations for community forestry. As such, the case studies will show that community forest implementation is a multi-staged process influenced by the cross-scale interaction of diverse factors that challenge local efforts.

Table 1. Theoretical Propositions and Rival Theories for the Study

a) What are the challenges to implementation?
Proposition 1: *Previously identified challenges at multiple scales combine to influence implementation.*
Rival 1.1: *Other previously unidentified challenges are also important.*
Proposition 2: *Common challenges exist across cases.*
Rival 2.1: *Common challenges do not exist across cases.*
Proposition 3: *General stages exist in the evolution of community forest initiatives with some common challenges.*
Rival 3.1: *General stages do not exist with common challenges.*
b) Why do communities seek community forests?
Proposition 1: *Communities seek local control over local resources for local benefits due to ecological and economic concerns.*
Rival 1: *Other motivating factors are also important.*

Mitchell (1989) emphasizes the importance of a multi-perspective approach to resource management problems that have both temporal and spatial dimensions.

Accordingly, the analytical framework combines the systems view employed by

Grzybowski and Slocombe (1988) with the phases of community forest development

from Gunter and von der Gonna (2004) to gain a multi-scale perspective of the challenges

to community forest implementation (Figure 2).

Figure 2. Analytical Framework for Community Forest Implementation
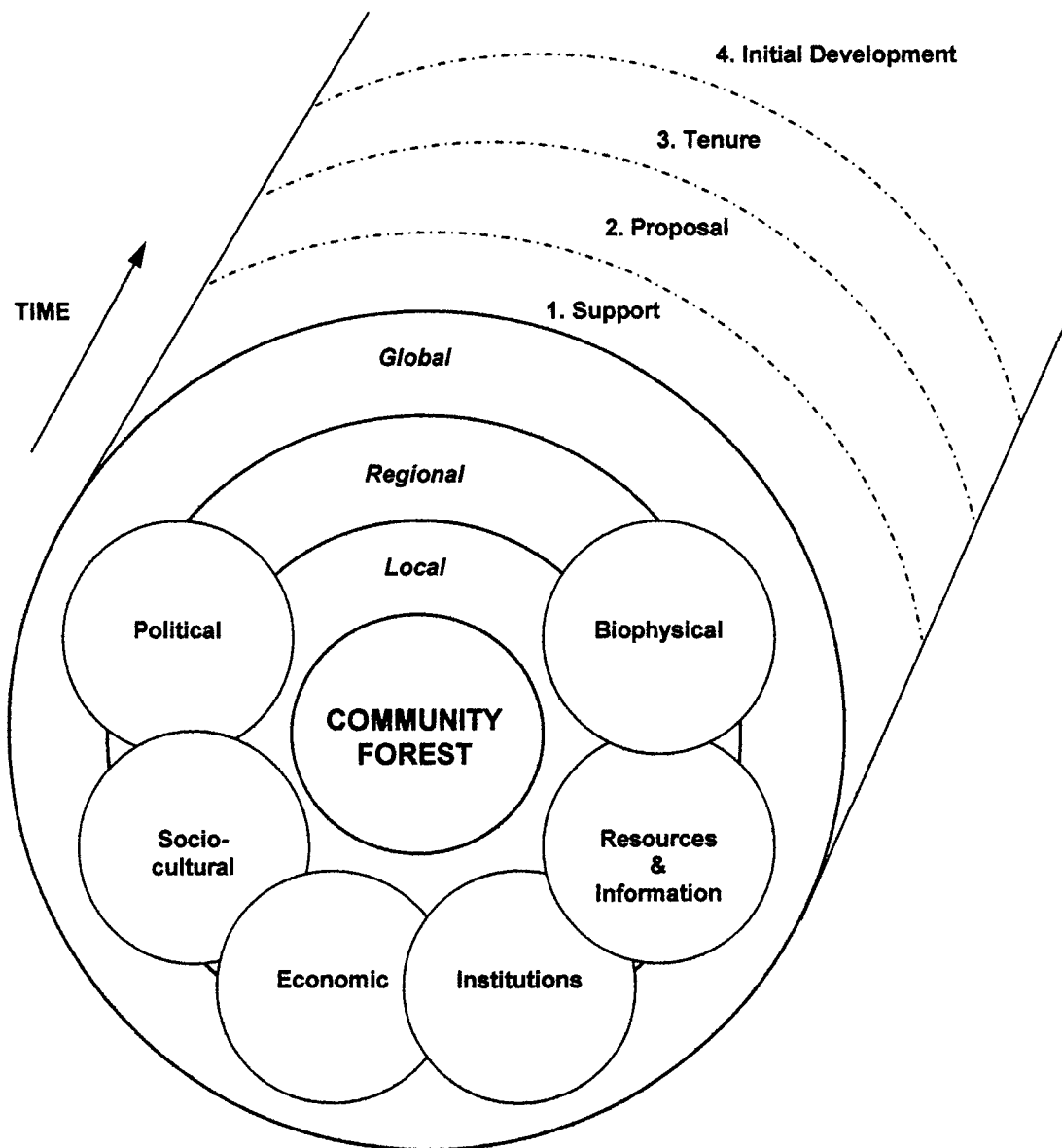
(Adapted from Grzybowski and Slocombe 1988; Gunter and von der Gonna 2004)

In theory, sociobiophysical systems are comprised of interacting subsystems that evolve "independently and in conjunction with the others" (Grzybowski and Slocombe 1988: 467). The interconnectedness of the subsystems creates synergistic effects and what happens in one subsystem influences what happens in other subsystems to varying degrees. Subsystems are linked across multiple hierarchical and temporal scales. The sociobiophysical perspective helps to clearly identify and understand the challenges to community forest implementation because it provides a "holistic interpretation of processes and events" (Grzybowski and Slocombe 1988: 467).

Gunter and von der Gonna (2004) describe four general phases in establishing a community forest (Figure 3). Each stage has associated activities; however, these activities are not necessarily mutually exclusive. Some activities are ongoing and can occur out of sequence depending on local conditions. Additional phases may follow as operations evolve. Still, this model provides a starting point for analyzing challenges and stages in community forest implementation towards the development of a universal process model.

This framework enabled the organization of challenges by subsystem, scale of origin, as well as the stage of implementation in which they occur, indicating the present stage of each case study. A list of codes was developed through the literature review and transcribed interview data was manually coded on a case by case basis. Emergent themes were coded and pattern-matching was used to identify significant challenges for discussion (Yin 2003; Miles and Huberman 1994). Challenges and motivations emerging from the coded interview data were combined for writing the individual case study reports. Within the analysis, descriptions of interviewees' roles and affiliations are

Figure 3. Phases in Establishing a Community Forest

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┌─────────────────────────────────────────────┐
│ 1) Preliminary Research and Investigation    │
│     • planning group forms                   │
│     • efforts to build community support     │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│ 2) Proposal Development                      │
│     • forming partnerships                   │
│     • set up the organization                │
│     • secure financing                       │
│     • community involvement                  │
│     • management plan                        │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│ 3) License Negotiation                       │
│     • securing forest tenure                 │
│     • community involvement                  │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│ 4) Initial Development                       │
│     • hiring staff                           │
│     • policy development                     │
│     • community involvement                  │
│     • monitoring and evaluation              │
│     • Forest Development Plan                 │
│     • field work and cutblock layout         │
│     • site plans                             │
│     • cutting and road permits               │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│ 5) Possible Future Phase(s)?                 │
└─────────────────────────────────────────────┘
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(Adapted from Gunter and von der Gonna 2004)

deliberately vague to protect confidentiality due to the small size of the communities,

organizations, and community forest networks. As is common in small communities,

many participants played several different roles in the process and so were asked to state

their main role(s). The breakdown of interviews is outlined in Table 2.

In the next chapter, case study results and discussion are presented individually. A

complete array of challenges from each subsystem is presented by spatial and temporal

scale. In the final chapter, common challenges and motivations identified through cross-case replication are used to frame the conclusions and recommendations.

Table 2. Breakdown of Case Study Interviews

Denman L (4)	Malcolm L (9)	Cortes L (7)	Creston (9)	Other (1)
Denman Community Forest Cooperative (4)	Sointula Recreation. Ass. (4); Broughton Archipelago Stewardship Soc. (1); Malcolm I. Resource & Development Soc. (1); Western Forest Products (1); MOF North Island – Central Coast Forest District (1); Research Consultant (1)	Cortes Ecoforestry Society (5); Klahoose Advisor (1); MOF Sunshine Coast Forest District (1)	Creston Valley Forest Corporation (2); Creston Development Authority (1); East Kootenay Env. Soc. (2); Regional District of Central Kootenay (1); Erickson Improvement District (1); MOF Kootenay Lake Forest District (2)	MOF Coast Forest Region, Researcher (1)

4. CASE STUDIES

4.1. Introduction

The case studies consider the complex and diverse experience of four community

forest initiatives in BC: Denman Island, Malcolm Island, Cortes Island, and Creston

(Table 3) (Figure 4). After a brief description of the community context, the relations of

a network of actors and key events are presented chronologically. The case stories are

based on a combination of details gathered through interviews and documents where

cited. This leads to a discussion of the key challenges faced during their development

using the five stages from the model described in the last chapter: 1. preliminary

investigation; 2. proposal development; 3. securing tenure; 4. initial development; 5.

active management. The analysis characterizes implementation as a multifaceted process

influenced by endogenous and exogenous factors occurring at multiple scales. The

stories also underscore the local desire for control over natural resources and

development.

Table 3. Case Study Attributes

	Denman Island	Malcolm Island	Cortes Island	Creston
Population 2001	1250	886	938	4795
CF Origins	Early 1980s	1990	Early 1980s	Early 1970s
CF Land	≈ 1700 Ha	≈ 5000 Ha	≈ 6500 Ha	12800 Ha
CF Property	Private	Unallocated Crown	First Nations, Private, Allocated Crown	Unallocated Crown
CF Organization	Co-operative	Corporation	Partnership	Corporation
Main Industries	Tourism, Agriculture, Services	Forestry, Fishing	Tourism, Aquaculture, Services	Agriculture, Forestry, Brewing

Figure 4. Locations of the Case Studies
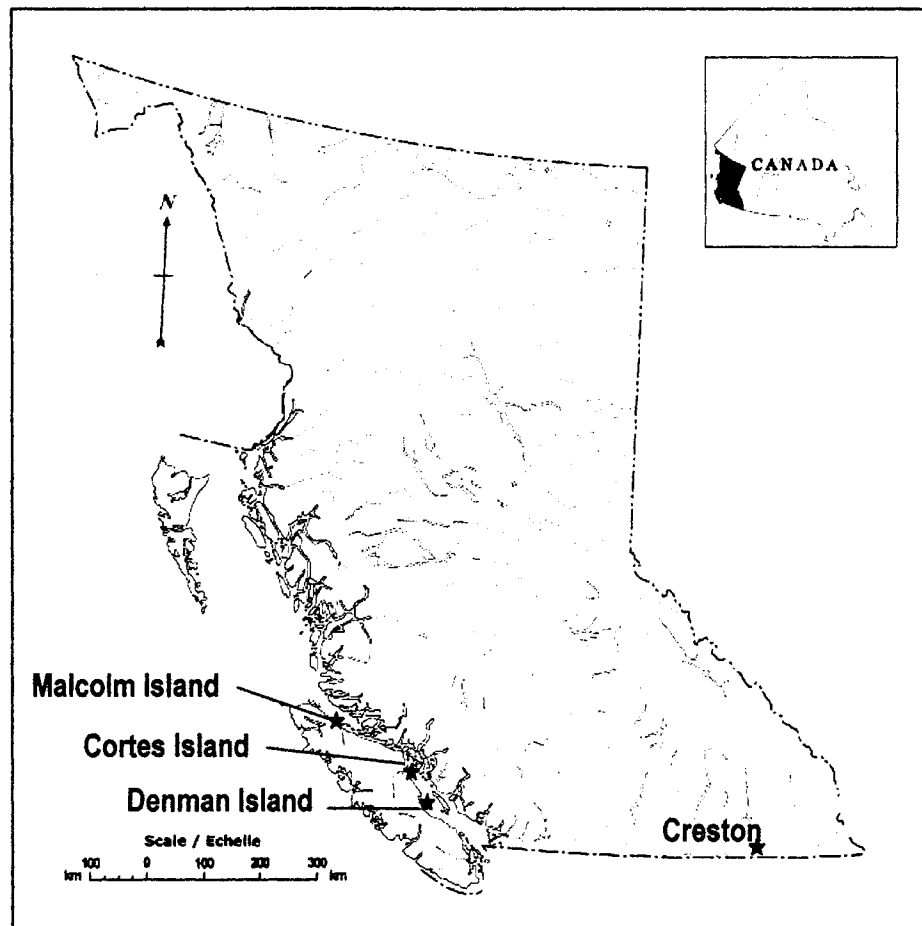
(Source: Natural Resources Canada 2003)

4.2. Case Study 1: Denman Community Forest Co-operative

4.2.1. Community Context

Denman Island is one of BC's Gulf Islands, located in the Straight of Georgia between Vancouver Island and the western coast of BC. With a land area of 81 km², the island is about 19 km long and 5 km wide. The island is almost entirely privately owned (93%), save for the Crown lands at Boyle Point and Filongly Park. Historically, Salish people

71

from Comox made summer camps locally, however, few First Nations people reside on Denman and there are no reserve lands.

Located within the Regional District of Comox-Strathcona, Denman Island does not have municipal status but is organized under the Island's Trust Council, which administers community planning needs (zoning and by-laws, services, environmental protection) for 13 associated trust area islands and 1 island municipality. Under the 1989 *Islands Trust Act*:

> The object of the Trust is to preserve and protect the Trust Area and its unique amenities and environment for the benefit of the residents of the Trust Area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia. (Islands Trust Council 2003: 5)

Each island has a 3 person local trust committee responsible for working with their communities to develop policy and regulations.

Denman Island has about 2000 residents (Statistics Canada 2001), although the year round population is estimated at 1250. Like other Gulf Islands, Denman is a summer haven for urban dwellers and tourists. In recent years there has also been an influx of retirees. In 2001 about one third of the population was above age 55 (Statistics Canada 2001).

Agriculture, forestry, and fishing were traditionally important following European settlement in the 1870s. However, the rising significance of other industries coincides with the island's changing character. The majority of Denman's residents now work in health and education, government, business and management, services, and manufacturing (Statistics Canada 2001). There is also a diverse community of artist's and artisans at the core of Denman's vibrant tourism industry. About 10% of the total

working population (1090 people) works in agriculture and resource industries, and more

than half of these (65) are farmers. Denman Island is not a "blue-collar" rural resource

community that depends on forestry.

4.2.2. Origins of the Denman Community Forest Co-operative

The local movement for control of forest resources on Denman Island began with a

major private land sale in May 1995 (figure 5). Long-term landowners Weldwood of

Canada Ltd. sold a 1700 hectare tract of forest land—nearly one-third of the island—to

John Hancock Timber Resources Group, a Boston-based firm. With no government on

the island, for many years the harvesting activities of Weldwood were monitored by the

Denman Forestry Committee (DFC), a sub-committee of the Denman Island Resident's

and Ratepayer's Association (DIRRA). There was sporadic logging on Weldwood's land

Figure 5. Timeline of Selected Key Events, Denman Island
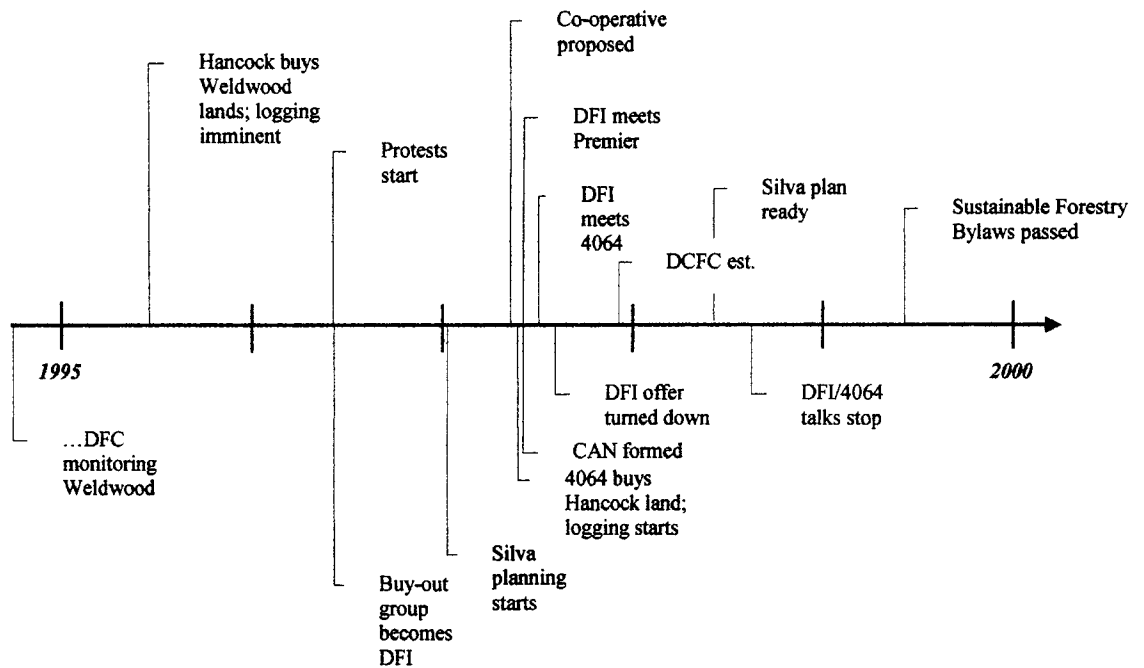
and residents used the property as "public" green space. However, meetings with the new owners revealed their plan to clearcut the property commencing November 1995, which generated great concern among residents. As an immediate response, members of the DFC branched off to develop a buy-out plan.

A public meeting was held and initial community consensus was for forest conservation, but there were many different ideas about how this should come about. By December 1995 public meetings produced three paths of action to be pursued by separate groups: 1) continue monitoring Hancock's harvesting processes; 2) buy the land from Hancock, and; 3) co-manage the lands with Hancock in order to influence practices. These separate initiatives advanced in parallel.

Hancock had indicated a willingness to work with the community in order to address local desires for sustainable forestry and a possible land sale. The "Buy-out Group" was the most productive local group. They sought funding and gathered information, and brought in practitioners and academics as guest speakers at local meetings. Based on the ecosystem-based planning principles of Silva Forestry Consultants (SFC), the Buy-out Group became the Denman Forestry Initiative (DFI) in May of 1996 exactly one year after the land sale to Hancock.

The first of many protests also came in May 1996 when concerned residents interrupted clearcutting on Hancock's lands (DCFC 2001). Residents, who were alarmed at the apparent rate of harvesting, attempted to stall the process as DFI was still in reconnaissance mode. Despite the interruption, Hancock reaffirmed its support for DFI's purchasing plans in August 1996 (DCFC 2001). However, an inflammatory letter was

sent by the DFC to Hancock's CEO, angering executives who threatened to halt communication with DFC and only deal with DFI.

Having secured grant monies from FRBC (Beattie 1997), DFI commissioned SFC to conduct long awaited ecosystem-based landscape planning and landscape assessments of Hancock's lands. In May 1997, DFI held a public meeting to discuss the appropriateness of a co-operative management structure to own and manage a community forest on Denman Island (DCFC 2001). Residents were open to the idea of a co-operative venture due to the history of co-operative volunteer efforts that went into organizing work on an island with no history of formal government. With their increasing readiness, every indication was that Hancock was prepared to sell to DFI. Then on June 30th 1997, two years after purchase, Hancock suddenly announced the sale of their forest lands to a BC company, 4064 Ltd. The community was shocked.

The sudden change of ownership set off a rapid course of events with many negative outcomes for community management goals. The new owner began moving logging equipment across to the island the day after the sale, and protesting Denman residents turned away work crews. Two-hundred Denman residents then attended an emergency meeting to discuss the land sale. Video was shown of the new owner's clearcut logging practices on Gabriola Island, another Gulf Island. This generated serious concern among residents. Unanimous support was given for continued efforts to buy and manage the land; some residents formed the Community Action Network (CAN) to engage 4064 logging crews in non-violent protests, which they did on a daily basis over the coming months.

The community managed to meet with the Premier, officials of BCMOF and FRBC on July 8th 1997 to seek backing for their buy-out plan (DCFC 2001). The Premier supported the idea but pressed the community to develop a credible business plan, which was already a work in progress. The tentative business plan addressed a cross-section of community interests, including timber harvesting, residential land development, ecoforestry education, fundraising for conservation, and an investment program for community ownership of forest resources.

The day after the meeting with the Premier, 4064 Ltd. began road building on some sensitive hilly terrain without necessary development permits from the Islands Trust. Angry Denman residents informed 4064 Ltd. and the Islands Trust. Yet 4064 Ltd. continued to work under legal advice that industrial logging rules superseded the Islands Trust bylaws. Lawyers from all sides became involved while the road construction continued.

After some heated disputes between loggers and residents, DFI representatives finally met with 4064 Ltd. on July 23, 1997 (DCFC 2001). DFI made clear its intentions to purchase the land, but accepted no responsibility for community protest actions. 4064 Ltd. shared its own Denman forest data with DFI, who became aware for the first time that detailed information did actually exist—Hancock had never provided such data to them. 4064 Ltd. appeared to be cooperating, agreeing to DFC monitoring and agreeing to hold off on logging until August 4th, 1997 to enable DFI to prepare a purchase offer. However, 4064 Ltd. also clearly indicated their interest in the timber, having prearranged its allocation through other business deals.

It took one month for DFI to secure a loan in order to make a formal offer to 4064 Ltd. During that time meetings continued for the establishment of a co-operative, which had been put on hold in the scramble that ensued with the change of ownership. The blockades also continued. Some Denman residents had also gone to the BC Legislature to stage a protest for forest protection. At the same time, sustainable forestry by-laws were being developed and hurried through with support from the Islands Trust, which were aimed at regulating 4064's logging. A cash offer of 16.5 million was made to 4064 Ltd. in late August, which was rejected based on the offer being too low, and the timber interests of company partners who were in log trading and sawmilling (Beattie 1997). Discouraged, the community held a meeting to realign divergent community actions and discuss plans to form a co-operative.

With all that had transpired so quickly, the Denman Community Forest Co-operative (DCFC) was finally officially formed on November 25, 1997 (DCFC 2001). Some months later the co-operative received the ecosystem-based Landscape Analysis and Plan from SFC. Nearly three years after Hancock's purchase, the community held a strategic meeting in June 1998 to establish long-term goals, prioritize activities, and determine a clear vision for the DCFC. However, as 4064's logging was well underway, the forest ecosystem in question had been considerably reduced. Another purchase offer was made in July 1998 based on diminishing forest resources. On August 5, 1998, the DCFC decided to break-off talks with 4064 Ltd. due to the futility of the process (DCFC 2001).

In the months that followed, hopes for a community forest on Denman Island dissolved. The rate of harvesting and volume of timber that had been removed negated any reasonable purchase of the land for a community forest. Relations declined further

into conflict; local efforts focused on disrupting logging activities and protests became especially heated. Sustainable Forest Land Use by-laws finally came into effect in May of 1999 (DCFC 2001). But the cumulative effect of these actions was that several legal battles were being fought simultaneously between 4064 Ltd., the Islands Trust, and individual residents, while logging continued.

At time of writing, 4064's Denman Island properties were in the process of being sold to a number of new owners. Residents were considering a controversial development proposal for a major part of the formally proposed community forest lands. This would add several new homes in the most scenic areas, with a small portion of land earmarked for a community forest or public green space. However, the prospect of having a successful community forest is doubtful given the small size and degraded nature of the land base in question.

4.2.3. Key Challenges to Community Forestry

The Denman Island story illustrates several key challenges to community forestry. Results show that different factors became influential at different stages, as the process unfolded. A summary of these challenges are presented in Table 4 at the end of this case study.

4.2.4. Stage 1 - Preliminary Investigation

4.2.4.1. Lack of Consensus and Weak Support for Community Forestry

Interviews showed that the earliest actions of Denman Island residents were fragmented by their inability to generate consensus as to what should be done. Although

78

the majority of residents wanted to protect the forest, there was no consensus that

community forestry, or any other action for that matter, was the single best avenue:

> I don't think there was community consensus that this was, you know, everyone's chosen course.... Groups of people coalesced and took it off in more directions than you can imagine. So, was there a collective vision? I don't think we got a collective vision until it became obvious that there was nothing we could do. Interviewee 1

> ...out of our big community meeting we decided on this: there's more than one avenue of approach. Interviewee 2

The diverse range of community values and interests surfaced at meetings and

perceived time constraints undermined group decision making processes. There was little

time for exchange of ideas to generate common understanding and shared vision. The

fact that community forestry was still an abstract phenomenon and not a widely applied

policy in BC in 1995 likely contributed to the lack of vision for its application.

Wide local support for community forestry was not established from the outset and so

a unified movement to implement it was never advanced. This also had the effect of

dividing community resources and support across many parallel policy processes.

Residents indicated that a very small group of people were trying to buy-out Hancock's

land:

> ...at that time there were a whole lot of people involved in the question of forestry in the island, but there was only a small group of us working on the angle to try and buy the land and operate it as a community forest. Interviewee 2

> I think there was an acceptance by the community that 'well ok if these few men and women want to go off in this direction and try to do something to try to capture this community forest, whatever that meant, ok...' but really it wasn't the fulltime occupation of everyone. Interviewee 1

Aside from the core group of people, there did not appear to be a collective drive to pursue a community forest. Most residents were satisfied to let the buy-out group proceed but did not actively back the movement.

Weak support may also be linked to the reality that Denman Island is not directly economically dependant on the forest industry, a common precondition of successful initiatives (Gunter and von der Gonna 2004). Less than 4.5% of Denman's working population were employed by a resource industry, indicating that fewer still workers were in forestry (Statistics Canada 1996). There was no "strong local desire to manage local forests" (Gunter and von der Gonna 2004). Denman residents wanted preservation rather than a forestry-based local economic development scheme.

4.2.4.2. Fragmented Sense of Community

Challenges with attaining consensus and support appear to be linked to a weak sense of community. The diversity of values and interests on Denman detracted from the sense of community necessary to develop a common vision, goals and objectives. While there was widespread concern among residents, and public meetings were well attended, a micro scale of analysis shows that sub-communities or factions began pursuing different courses of action in line with their own interests. As one interviewee put it, the community was:

> completely fragmented around what peoples' issues... what seemed to be a focussed issue. I think that there were, you know, a good 6 or 7 major focuses with people surrounding them. Interviewee 1

These divisions became clear after the first community meeting was held to discuss the forest transfer from Weldwood to Hancock.

Participants commented that Denman has experienced population increase and a sociocultural transition since the 1980s. This has affected community cohesiveness:

> the population increase probably diluted interest in the forest, because, you know largely people were concerned with establishing themselves and working their way into what ever kind of community was evolving... We're dealing with very few people here too. The population is very small... this is... [a] really spread out landscape here, where people live broadly all over the area. Interviewee 1

Moreover, the island's character as a summer vacation area for urbanites, as well as the influx of retirees raises questions about the level of shared kinship, culture, and history among residents thought to contribute to a strong sense of community (Jentoft 2000). New people bring new ideas, expectations, and prejudices. The island is increasingly becoming a vacation and bedroom community comprised of dispersed private land holdings owned by urban migrants and retirees. Given this transition and the presence of several different interests groups, it appears that Denman Island may not have a well defined and collective sense of community, which is requisite for the success of a community forest.

4.2.5. Stage 2 – Proposal Development

4.2.5.1. No Organizing Body

It took two and a half years after forming the buy-out sub-committee to establish an official central organizing body. While there was long a small core group of people interested in forestry on the island there was no pre-existing administration or organization (e.g. band council, municipality) to build on, other than the DFC sub-committee of DIRRA. Due to the low level of local organizational development the co-operative had to be conceived and developed from nothing. The ensuing logging added a sense of urgency that forced community action before they were really prepared:

We were about 6 months into it before we actually created the [co-op] so in the early stages we were just meeting as a group and just doing tasks as they came up. Interviewee 2

While the community demonstrated adaptive capabilities, the overall process was too unstructured, reactive, and ad hoc to be effective.

4.2.5.2. Unclear Goals and Objectives

While there was the vague goal of stopping industrial logging, clear goals and objectives were not identified early on. This was a significant challenge of the planning stage. The community forest group tried to proceed to stage 3 in making purchase offers on the land before they even had a plan devised with clear goals and objectives with genuine community support:

In all the discussions... previous discussions with Hancock... the issue of how the community was going to deal with [the community forest] and pay for it really wasn't addressed, because, you know... [it's] a very difficult issue to get, you know, consensus of people... to sit down around an issue so abstract. Interviewee 1

The fact that the community forest group could not define what they wanted and how they were going to do it was an issue and appears to be one of the reasons that Hancock would not proceed with a deal.

4.2.5.3. Lack of Resources and Information

Denman Island residents had difficulty developing support for community forestry because there was very little a priori knowledge of concept:

Of course no one, or at least shall we say collectively, didn't have a very comprehensive idea of what a community forest looked like. Interviewee 1

While they did have participation from well-educated people with professional experience, individuals did not possess the "right" range of skills necessary to pull a plan together in a timely manner. One participant stated that they did not know enough about

82

"the business of owning and managing forests" (Interviewee 2) to be successful. A great deal of time was spent collectively learning about the process while Hancock and 4064 Ltd. proceeded to log.

Generating and incorporating complete information about the forest was a key challenge. The community received grants to hire consultants to undertake ecosystem-based landscape assessments; however, the time it took to assemble the reports while Hancock and 4064 Ltd. continued logging was certainly a problem:

> ...years went by while large groups of people coalesced around committee and studying, the FRBC was a study... because it was felt that, you know, if we were going to actually become involved in purchasing the land, it would be good if we knew something substantial about it, which is completely valid. But at the same time we were just watching the trees disappear... this was all Hancock. Interviewee 1

> ...the study just went on too long and we kept on sort of bugging [Hancock]. The actual time frame was well over a year, maybe a year and a half or something... and it should have been 6 or 9 months. Interviewee 3

Insufficient data stalled preparation of the plan and, therefore, financial support.

A deal might have been reached if Hancock had been willing to share its forest information sooner. One can surmise that not sharing the data was a strategic business move by Hancock who had been aggravated by the community's protest actions. Hancock instead shared the information with 4064 Ltd. Community access to the timber profile data would have assisted the development of the business plan and attainment of financial support much sooner.

4.2.5.4. Weak Local Support

Having moved ahead without consensus or widespread community support for community forestry, DFI tried to garner support for the plan by incorporating multiple interests:

83

The co-op thing wrote up a plan that had a number of economic options to it, so it tried to spread itself around to appeal to the different talents that we felt that there were in the community that could do something related to forestry, like education and subsets of employment et cetera... but this wasn't what the community at large felt was like an important option, it was accepted that 'if these people managed to get it together... terrific'. Interviewee 1

There was a small group of community forest supporters working on the project but most of the community remained uninvolved. An official organizing body with a clear focus for action would have helped legitimize the community forest movement and build community support by giving people something tangible to rally around. As the logging continued during proposal development, community forestry had less appeal and maintaining support was difficult:

Few people embraced the idea, you know, of going out and cutting trees especially after the tree cutting started. Cutting trees was a stupid option. More of the same didn't turn anyone on, it was nonsensical. Even cutting trees correctly didn't make any sense by the time it was underway. Interviewee 1

4.2.5.5. Weak Senior Government Support

Those involved in planning the community forest cited the lack of provincial government support and policy for community forests during the mid 1990s:

I think having a provincial government sympathetic to the idea is probably the most important thing... forestry in this province particularly is kind of a sacred cow. Government doesn't dare touch it. The companies are too big. So there's two aspects to that, of course one... where it's Crown land the provinces would have to take it away from the big companies, which they seem very reluctant to do, even though they have the power to do it. And um... on private because they don't regulate forestry at all on private and won't let anyone else regulate it... won't even let a community regulate it. Interviewee 2

Even though the Premier and other provincial representatives offered their support for forming the DCFC, there was a feeling locally that it was not much more than tokenism:

...after we and a few other groups [were] badgering the people in government ferociously, then they started throwing legislation at us. 'We'll make these community forest pilot projects...' And you know... anything to prolong and out

84

last us. 'Let nature takes it course and throw government programs at them to shut up the ones that are more actively on this...' Interviewee 1

Another participant said that weak federal government support had undermined local community forest efforts:

> Maybe we had the provincial support. What we didn't have was federal support... because at the time we were going through all this, our Prime Minister had the owner of [4064 Ltd.], Mr. Kim, on a tax payer holiday to Korea to sell our trees. Interviewee 4

This participant then produced an article published by the Canadian Department of Foreign Affairs and Trade in September 1998. The article praised a 4064 Ltd. partner for setting up a deal in 1997 to market Canadian lumber (presumably Denman's), in Korea. Indeed, 4064 Ltd. had made it clear that they were more interested in Denman's timber than in selling the land because they had prearranged buyers. It appears that the federally backed marketing deal was the impetus behind 4064's purchase and rapid harvesting of Hancock's land. Thus, a lack of senior government support emerged as a political challenge and the close association of senior government and industry was perceived to be an important paradigmatic challenge to securing land tenure.

4.2.6. Stage 3 – Securing Tenure

4.2.6.1. Business Competition and Linkages to International Markets

The above observation underscores the challenge of being embedded within a globalized forest economy with corporations that have no loyalty to communities that house their land assets. The community did not have the economy of scale needed to compete with vertically integrated, well-connected companies that did have the capital to buy the land and log it quickly. Aside from the fair, yet modest cash offer that was made to 4064 Ltd., the community had little else to offer to entice the company to sell:

85

> [4064 Ltd.] could make more money by logging it... and I think that's right. Anyway, it was much more complicated than that. He had established his partnership with people who actually wanted logs. Their businesses were knowing the guys who owned the plywood mill down in Nanaimo, and they wanted logs. And then his other partner was a Korean guy who traded logs off shore and they went into it to get an ensured log supply. Just getting their money back was of no interest to them at all, and they would want a big premium that would enable them to go and get an equivalent log supply somewhere else for sure. So there really wasn't that much interest in the partnership at all in selling it out. Interviewee 2

The potential financial returns to 4064 Ltd. from existing business opportunities simply surpassed the community's offer. Logs had been promised to regional sawmills and international buyers in Korea. Neither Hancock nor 4064 Ltd. were prepared to walk away from potential profit; logging Denman's forests was "just business". The community was not equipped to be a player in BC's forest economy, let alone the international market place.

4.2.6.2. Lack of Resources

Raising capital to make an offer on the land was cited as a key challenge:

> The biggest hurdle is the economic hurdle. How does a community invest tens of millions of dollars and why should they? Interviewee 1

The initial impression was that insufficient capital was the reason the DCFC ultimately failed; however, others suggested that it was less difficult to secure financial backing than they originally expected:

> We also had to raise this... what seemed a huge amount of money... 12-14 million dollars... we thought. Interviewee 2

Another participant expressed that money was not really a challenge at all; rather, it appeared that the problem was having a willing seller.

4.2.6.3. Resistance from the Industrial Forestry Paradigm

Industry resistance and unsympathetic business at provincial to international scales

was commonly noted as a very significant challenge in purchasing the Hancock/4064

Ltd. lands. Denman residents stated that both Hancock and 4064 Ltd. simply did not

want to sell the land to the community for a community forest:

> Ah... Hancock... once we started looking like we might be successful, we got a
> government grant to do our study of the forest so we could prepare a forest
> management plan, and get serious... they started looking for another buyer....
> Anyway [it's] much more complicated then just... but you might say it is one of
> the reasons we failed. 'Cause if we'd been able to go along with a sympathetic
> owner who was actually prepared to sell out to us... We needed more time, you
> know, we ran out of time. Interviewee 2

> They never would have sold to us even if we could have sent somebody else
> in with the money. Interviewee 4

The perception was that this was the will of an industrial forestry establishment that did

not want to do business with people who might have interests divergent from there own

tradition:

> It's also an old boys' network you know. If you're not in it, you can't get the
> leads and so on. Interviewee 2

> Well in my estimation, community-based ecoforestry is 180 degrees different
> than corporate logging, bottom line. It's so different that I don't think they would
> want us to succeed on that. Interviewee 4

Another participant (Interviewee 1) said that Hancock's forest managers were "hardnosed

loggers", which contributed to the lack of sympathy for Denman's community

conservation movement. There were clear value differences between the community and

industry that did not facilitate negotiations. Community demands based on the tenets of

ecosystem-based forest management may have seemed unreasonable to companies that

were used to more traditional industry forestry methods.

4.2.6.4. Social Conflict and Poor Relations

While Denman residents believed that business was unsympathetic to their desires, the

level of conflict generated locally, provincially, and internationally certainly contributed

to the sour relations between residents, loggers, forest managers, and business executives.

Residents believed some community actions may have tarnished relations with Hancock

representatives and ruined their chances of reaching a deal:

> It devolved into an extreme level of protestation by everyone and anyone in
> the process, and Hancock got the full benefit of everyone's thoughts, which they
> probably didn't need. It might have prompted them to try and unload us 'cause
> we were collectively stupid about every [issue]. Interviewee 1
>
> I think that we weren't co-operative enough with Hancock. We were sort of
> causing them trouble all the time... whenever they would come up with a
> proposal we'd say 'ahhh, we don't like that... you're cutting too much', or
> 'you're cutting it too fast.' And I think head office in Boston—Hancock
> Insurance company—said 'that's enough, too much trouble'. Interviewee 3
>
> I think they were fearful that we would show up at their board meetings in
> Boston... that a small group of people could make a lot of noise, and they didn't
> want any noise. Interviewee 4

Indeed, Hancock stated that they sold the land to 4064 Ltd. in attempts to cut their losses

and try to recoup investments after months of unreasonable demands by Denman

residents (Beattie 1997). The company felt it had gone to sufficient lengths to work with

the community having participated in more than 20 meetings with different community

sub-groups over two years; dealing with a formal organizing body representing a unified

community movement might have fostered better business relations and given the

community more positive influence.

4.2.7. Motivations for Community Forestry

4.2.7.1. Local Control

In some respects Denman residents have more control over what happens on their island because there is no real government structure. For example, a network of volunteers manages the island and there is a tradition of co-operatives. Moreover, there is no steady law enforcement locally because police and Islands Trust by-law officers must come over from Vancouver Island. It is a quiet community where residents feel they are at arms length from many off-island or "outside" influences.

The most prevalent theme for community motivation was local control. When Hancock commenced logging, residents were up in arms due to sudden change:

> ...the community reaction was to the logging. It wasn't so much the practices as the pace of logging which they'd proposed... the island hadn't seen that in 25 years. Interviewee 2

The feeling was that outside forces were now having local impacts:

> The original goal was to prevent this multinational company from removing the forest before anybody could tell what they were doing. Interviewee 1

Denman Islanders had long enjoyed free access to the Weldwood lands and had an attachment to the lands as common space even though the parcel was privately owned. Under Hancock's ownership, things suddenly started moving too quickly for residents who were used to having more control over local events. The eventual choice of governance structure highlights local desires:

> We decided to create it as a co-operative, not a society, or not a company, deliberately because we wanted a structure with more community control, or more secure community control. We were contemplating owning a large valuable asset, we didn't want to run the risk of it getting within the control of a small group of people. Interviewee 2

The community wanted to make sure that even a small group of locals could not control the destiny of the proposed community forest. The community wanted the power to decide what happened to the forests in their community. Although the business plan included a component for local economic development, it was a secondary pursuit. The timber harvesting component would have made it possible to acquire and repay the loan. Residents were prepared to do some harvesting on the basis that they owned the land and could decide how it would proceed.

4.2.7.2. Development Pressure

The push for local control and community forestry was largely a response to development pressure that was steadily increasing. Residents were concerned about losing the forests but appeared to be really concerned about how subsequent residential development would change the local sociocultural and economic setting:

> Like people are afraid all the time that all these really ugly people are going to come, but I'm also afraid of what money and development [could do] because there's always going to be this push for development and jobs.... We've had to fight them back a development, cause we don't want timeshare lodges. We wanna have our own little B&B, you know, hire our own people, not work for you thank you very much. Interviewee 4

> My concern is it's going to change the character of the community. So you're gonna get a different sort of person here, and it's too sudden. You know if it came slowly then ok, people will gradually get a feel for the island and how it works and start dressing like islanders... city folk and this kind of thing (laughs).... What we're seeing on the island the last few years is the property values are just zooming like they are everywhere else. It's obviously going to force people off the island. The taxes are going up and so a lot of the houses being built now are million dollar houses. Interviewee 3

Residents were concerned about different values coming into the community with the influx of affluent people buying upscale housing. There were concerns that the island's economy would also change with negative implications for locals. There seemed to be

90

the perception that transition was underway that may occur too quickly and that was beyond local control. Ownership of the lands for a community forest was seen as a mechanism for controlling logging and development on a large portion of the island. Denman residents wanted to be the ones who decided on the amount and type of development that might proceed. The Denman Island case study points to the need for proactive management regulation and policies for private forest lands in BC.

Table 4. Multidimensional View of Challenges to Implementing Community Forestry, Denman Island

Denman Island						
	Social Subsystems					Biophysical Subsystem
		Political	*Social/Cultural*	*Economic*	*Institutional*	*Res. & Info.*	*Biophysical*

Stage	Level	Political	Social/Cultural	Economic	Institutional	Res. & Info.	Biophysical
Stage 1	*Local*	no consensus; weak support; unclear goals; inefficient participation; parallel policy processes			weak sense of community; presence of factions; fragmented organization		
	National	no national vision for CF					
Stage 2	*Local*	weak support; unclear goals & objectives			no central organizing body	uncertainty; no knowledge of CF concepts or process; no data	diminishing timber & forest health
	Provincial	weak provincial support					
	National	weak federal support					
Stage 3	*Local*		conflict: e.g. protests; blockades; slander; vandalism		still no central organizing body	difficulty raising capital; limited business sense & forestry training	diminishing timber & forest health
	Provincial			competition for land; poor business dealings with industry	resistance from "old boys network" of industry & government		
	International		poor relations with multinational landowners	Denman forests linked to Korean markets	resistance from industrial forestry paradigm		

91

4.3. Case Study 2: Malcolm Island Community Forest Corporation

4.3.1. Community Context

Malcolm Island is located 5 km off the northeast coast of Vancouver Island, at the entrance to the Broughton Archipelago. The island is approximately 24 km long, 4 km wide and has a land base of 113 km² (RDMW 2005a). The majority of the island is uninhabited Crown land, interspersed with some private holdings and the Malcolm Island Indian Reserve 8—lands which are also largely uninhabited. A portion of the island falls within the territorial land claim of the 'Namgis Nation of nearby Cormorant Island.

Malcolm Island is part of the Regional District of Mount Waddington (RDMW), a vast, sparsely populated forestry and mining hinterland that covers a large part of northern Vancouver Island, nearby islands, and a portion of the adjacent mainland. As an unorganized territory, Malcolm Island holds one seat on the RDMW board, but Malcolm Islanders elect a small group of island representatives to advise the RDMW on local planning issues. The Sointula Recreation Association (SRA) manages the community recreation buildings, facilities, and trail system, and fundraises for community projects (RDMW 2005b).

About 80% of Malcolm Island's small population (886 in 2001) is concentrated in the unincorporated community of Sointula (RDMW 2005b). Meaning "harmony" in Finnish, Sointula was founded in 1901 by socialist Finns who wanted to create a self-sufficient utopian commune (Sointula Museum 2005). The island has a tradition of co-operative enterprise and a distinct culture that locals believe to be different from many neighbouring communities that began as remote logging and mining camps.

Finnish settlers had great difficulty clearing the heavily forested landscape, which turned out to be very unproductive farmland. Commercial fishing instead became the economic mainstay (RDMW 2005a). Logging was important until intensive harvesting by Interfor during the 1970s and 1980s depleted timber stocks. While no "majors" now operate on the island, there are two independent woodlots. Currently, about 18% of the island's forest cover is merchantable timber, and 50% of that is protected under the provincial Old Growth Management Area (OGMA) strategy. It will be several decades before second growth forests mature and stocks are replenished.

Like many rural BC communities, Malcolm Island has experienced significant economic downturn in the last decade. This is linked to depleted stock levels, changing policies and markets in the fishing and forestry sectors (RDMW 2005a). From 1996 to 2001, about 70 jobs were lost; 30 of those were in resource-based industries and agriculture (Statistics Canada 2001). Primary industry remained the most important employer in 2001 with 32% of the working population; however, population also decreased by almost 16% during the same period and the unemployment rate increased to 17.2%. Indeed, these significant drops in population and employment illustrate the combined effect of a rural resource economy in the final stage of the "resource cycle" in fishing and forestry (Clapp 1998). In attempts to diversify the local economy, remaining fishermen are developing value-added enterprises, while others have been exploring local forest management opportunities.

4.3.2. Origins of the Malcolm Island Community Forest Corporation

The idea for a community forest on Malcolm Island came shortly after Interfor left the island in 1989 and the Crown forest lands reverted to provincial control (figure 6). For

decades prior, industrial logging interests controlled the island's Crown forest lands, providing some local employment by harvesting large volumes of timber for off-island processing. With the departure of major forest corporations, the remaining timber stocks were small and best suited to small-scale forestry operations. Residents believed that local control and management would afford greater financial and environmental returns and so during the early 1990s they began discussing community forestry as a vehicle to diversify forest use. In keeping with the local tradition of collective effort, a co-operative approach was assumed to ensure that the future community forest would be controlled by the community for community benefit.

Figure 6. Timeline of Key Events, Malcolm Island
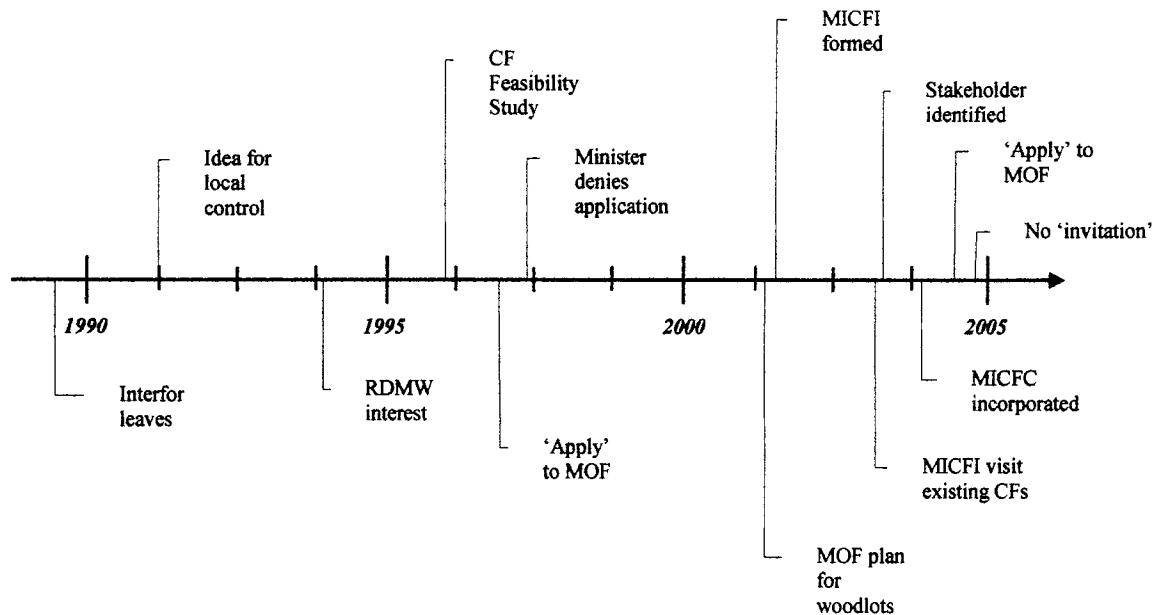
By 1994 the idea had some support from the RDMW as it was pushed by Malcolm's board member. The Malcolm Island Community Forest Feasibility Study was later commissioned under the auspices of the RDMW and completed in 1996. The report reflected residents' perceptions of three key advantages of community forestry 1) local

94

control; 2) local economic benefits and employment, and; 3) diversified use of forest resources. Due to the island's logging history and strong community environmental interests, the report adopted an ecosystem-based forest management approach. Preserving and restoring biodiversity was a key component of the plan:

> a strategy to manage the forest for biodiversity will include restricting harvesting levels to well below the long run sustained yield for at least several decades. Silvicultural systems and logging methods that preserve stand-level structural diversity (e.g. partial cutting, retention of wildlife trees, mixed species stands, longer rotations) will be worth serious consideration as a means to meet objectives for forest health. (Robin B. Clark Inc. 1996)

The report made suggestions for tenure options that would be suitable for developing a community forest on Malcolm Island: 1) acquire control from the province through a Crown land grant, or; 2) the creation of a new tenure form for community management. It was recommended that the latter tenure should afford a high level of security over the land and high degree of flexibility, as well as the ability to determine the AAC locally. While several BC communities were working on issues of local control at that time, Malcolm Island's proposal for a new community forest tenure was considered innovative (M'Gonigle 1996). The *Forest Act* had not yet been amended and so there was no supporting legislation, formal application process, or provincial support for the idea.

The community was interested in obtaining control of nearly the entire island. Crown land woodlot operators on Malcolm Island were not pleased, and other residents believed that it was a far-fetched plan. Conversely, community forest supporters anticipated wider community benefits and support, and so pressed onward with plans to make a proposal to the MOF district office in Port McNeill. The community expressed interest during the spring of 1997 and had their first request declined directly by the Minister of Forests (Personal communication, MOF, January 2006). With no foreseeable future for the

community forest, support for the co-operative effort dissolved after years of generating data, community meetings, planning, and lobbying. Ironically, in October 1997 the Minister of Forests announced the CFPP as part of the Jobs and Timber Accord. Subsequent legislation was passed to implement community forests during July of 1998. The province received 27 community forest applications in 1999, but Malcolm Island did not apply because there was low community support.

It took almost 5 years for the community to regroup and regain interest. Residents became concerned when they learned that the MOF had plans to allocate additional woodlot licences on Malcolm Island. By 2002, a small planning group, including some of the original community forest supporters, had reformed as the Malcolm Island Community Forest Initiative (MICFI). Discussions focussed on the MOF plans. There was agreement that the community should be involved and benefit as a whole from any small-scale harvesting that might be undertaken, rather than a few single woodlot operators. A mail survey was distributed throughout the community to gauge support, which indicated that interest and support for the community forest concept was still present. The core planning group continued to meet frequently for brainstorming and planning. Since the co-operative had failed, choosing an effective management model for the community forest was a primary concern. Members of the MICFI decided to visit existing community forests in BC in order to assess the experiences of other communities. In September 2003, the RDMW agreed to fund the production of a report on community forest options throughout BC (RDMW 2003). Revelstoke, Mission, and Creston were among the communities visited.

The MICFI report came back later in the fall of 2003. With much discussion, the community selected a corporate model based on the Creston Valley Forest Corporation (CVFC). The idea included multiple community stakeholders working together, which was appealing as it seemed much more efficient than a co-operative model. MICFI believed that a non-profit corporate model would streamline decision making, ensure fair representation, and return all benefits to the community. With legal advice, MICFI began to identify potential stakeholders. A small number of well-known groups from the island were selected to represent a range of community values: 1) Broughton Archipelago Stewardship Society; 2) Sointula Recreation Association; 3) Malcolm Island Lion's Club, and; 4) Malcolm Island Resource and Development Society. With the stakeholders in place full attention was given to designing the mandate and setting clear goals and objectives. The focus remained on local control and economic and environmental benefits, but was decidedly less preservationist than the former movement. Stakeholders worked together to define areas to be protected as well as workable areas more suitable to the logistics of logging. Achieving diversified use of forest resources for the purpose of benefiting the community was a clear goal. Instead of seeking control of the entire island, it was decided that a proposal outlining a smaller portion of the island would be more realistic and acceptable to government.

The Malcolm Island Community Forest Corporation (MICFC) was formalized in October 2004 (Broughton Archipelago Stewardship Society 2004). The group had been actively lobbying various governments for support including the MOF, RDMW, and 'Namgis First Nations. The North Island MLA also expressed support for the idea. As a legal entity, MICFC moved ahead with a proposal/application of minimal content, which

did not include a business plan. By this time a formal provincial process was in place for implementing community forests in BC. Discussions with the district MOF were, once again, not very promising. The community was informed that it was up to the Minister of Forests to invite applications and there had been no such invitation made to MICFC. The suitability of the land base was also given as a reason to limit new allocations to woodlot tenures. The MOF suggested that the community apply for an upcoming woodlot, but MICFC believed it to be an inappropriate tenure to meet community goals. Support for community forestry waned and volunteer energy reached its limit; the second thrust to form a community forest on Malcolm Island was unsuccessful.

There is still an active movement for community forestry but it has slowed considerably. MICFC has been negotiating with the 'Namgis First Nation as a possible fifth stakeholder in the corporation. The community also wants to develop a business plan and secure financing as steps towards establishing a community forest.

4.3.3. Key Challenges to Community Forestry

Key challenges to establishing a community forest on Malcolm Island are presented and discussed below. Results show that several different factors were influential at different stages as the process unfolded. A summary of these challenges are presented in Table 5 at the end of this case study.

4.3.4. Stage 1 - Preliminary Investigation

4.3.4.1. Getting Community Buy-in: Low Awareness and Support

Achieving community buy-in was the biggest initial challenge for Malcolm Island. During the first attempt, community support was not universal and some people were

unconvinced that it could work. The same scepticism carried over to influence the second thrust. In the earliest stages there was potential support, but generating common awareness was necessary to convince the community that community forestry was a good idea. The community forest group had to work very hard in order to build enough momentum to take the project to the next level.

4.3.5. Stage 2 – Proposal Development

4.3.5.1. Weak Support/Maintaining Support

Maintaining local support in the community and planning group was an ongoing challenge. Support was not universal from the outset. Participants mentioned having to contend with the small town rumour mill and public fears of "back room meetings". As the project advanced through the proposal stage, some residents were still suspicious of the planning group who were working to develop the community forest:

> there are people who question us even though we have pretty widespread
> support. Like if you go on the street and talk... like I talked to a lot of people
> about it. I'll find people that say, 'just what do you think you're doing... what is
> this all about?' And then after you describe the process some of them start
> saying, 'oh, that sounds good'. Interviewee 1

Explaining that the community forest would use a corporate structure was also challenging as residents were uncomfortable with a term many associated with external control. Several town hall meetings were held to engage and inform the public in order to try and build support.

Staying motivated was also a concern for those in the planning group. Many found it hard to maintain hope and drive when it appeared that there was no progress being made:

> It's hard to maintain your focus and drive when you go for so long without
> achieving anything. Interviewee 2

99

...we've just done this a 100 times and now we're doing it again... you can go months where nothing happens. You don't hear from anybody and you think, ah it's not going anywhere. Or, you know, they phone Lands and Water to see what's going on and nothing's going on. Interviewee 3

[It's hard] keeping that drive in the core group and community when not much is happening... multiple meetings... Interviewee 4

There were often long periods between government correspondences. Then, when the news was negative, it was difficult to regroup and persevere:

One of the biggest things personally is trying to get the energy back to get started again.... We all have to try to get our energy back again. Interviewee 2

Malcolm Island's community forest movement has lasted for over ten years and the dynamics of local support remains a challenge.

4.3.5.2. Poor Leadership

Although some individuals were identified as leaders, participants indicated that there was no true champion willing to head-up the project. This challenge is highlighted in the following exchange:

A: I think the community forest, in order for it to go it needs to be driven by someone with some ambition; someone in the community who is willing to take it on and champion it, and organize it.

Q: You haven't had that yet?

A: I haven't seen that yet... even though we have been involved in it, and have shared some of the duties. But there hasn't been anybody who has been willing to step forward and take it on and run with it. That's really what's needed. Somebody to take it on and run with it. Interviewee 5

The co-operative tradition on the island may have discouraged any one person from trying to step forward and assume such a position. As a volunteer effort, the community forest was not a number-one priority for anyone; however, participants believed that the project would benefit from having a definite leader with vision and motivation to make

100

things happen in an efficient manner. Also, with no clear leader among the directors,

hiring a leader to manage the MICFC would only be an option if tenure was awarded.

4.3.5.3. Improper Central Organizing Body

Participants indicated that a co-operative model was not suitable for community forest

management because it was too inefficient and ineffective. It is uncertain if the first co-

operative was ever registered and it was not deemed to have as much legitimacy as the

corporate model. Some believed the first initiative failed because the co-operative did

not have enough "teeth" to get past the first round of challenges. The co-operative did

not provide the leverage necessary for swift action. This problem was directly attributed

to the number of opinions involved in the decision making process:

> ...where you have 200 members, you have 200 opinions, and you get
> nowhere. You go nowhere. Interviewee 3

4.3.5.4. Inefficient Participation

Under the corporate model, direct community involvement through town hall

meetings caused inefficient participation. Although town hall meetings were crucial to

building awareness and support, active community involvement was initially taxing for

everyone involved:

> We recognized the need to have more involvement from community, and the
> various values of community, and aspects of the community, but at the same time,
> if you have too many people at a meeting it can be hell. Interviewee 4

> If you get too many people, your consensus is hard to find. You get way off in
> abstract philosophies. It just gets slowed right down. Interviewee 1

Town hall meetings were especially challenging because they often ended up as a room

full of residents yelling at each other and the directors. Surveys proved to be effective

instruments for acquiring public input and gauging support. Future public meetings were

going to be designed to facilitate interaction with stakeholder representatives at individual stations to lessen the confrontational town hall approach.

4.3.5.5. Difficulty Reaching Consensus

Reaching consensus during stakeholder negotiations was identified as a key challenge. While it appeared that all stakeholders supported the goals of economic development and environmental responsibility, both environmentalists and loggers remained committed to their respective values:

> The most important challenge, I would say, was coming to an agreement with a very dedicated environmental group on the island. We came to an agreement with them on what parts of the island to save... that was a significant step for us... the challenge about it was just simply convincing them, the environmental group, that the community forest group would accept their conservation plan, you know. Interviewee 1
>
> It took a long time for us to come up our shareholder agreement, you know, finding that balance that everybody was comfortable with. Interviewee 6

Despite their difficulties, interviewees emphasized that the time taken to reach consensus was critical to attaining solidarity.

4.3.5.6. Lack of Resources

As a grassroots endeavour, MICFC relies on volunteer time and effort. Participants stated that they attended countless meetings for about two years during the proposal stage. As is often the case in small towns, most people divided their time between family, work, and several different volunteer boards:

> ...and like every other board on this island, everybody who sits on that board sits on other boards... there's always a lot to do in this community. Interviewee 6
>
> Nobody's getting paid to do this, it's all volunteer that we're looking after the community. Interviewee 3

The seasonality of resource sector employment influenced volunteer commitment, which made it difficult to maintain momentum during certain times of year:

> You know, traditionally around here at this time of year it's tough cause volunteer power and meetings and everything start to happen in September and they go through to March and then after that its tough eh. Interviewee 1

Any progress was completely dependent upon the island's volunteer network.

Lack of money/capital was also listed as a major challenge as there were resources, services, and skills that the volunteers could not provide:

> It's really nice to get those couple government grants in the beginning. You get all this great money and then it's gone and you haven't reached a point yet where you are sustainable. Interviewee 6

> You always have to worry about [money] cause there's never enough. But you know, some would be a good start. It's having enough to do what you want to do, and right now we don't... we don't have enough to get going. Interviewee 5

> Well for one thing we have to figure out funding... funding is a big deal, and that's, I would say, is next on the list. Interviewee 1

Some funding was received for the first feasibility report and reconnaissance trip, but the community forest still needed to develop a business and forest management plan, which required business, legal, and forestry consultation. A sound business and management plan is important to the provincial community forest application process. Participants also believed that having a Registered Professional Forester (RPF) to inform the planning process and endorse the plan would have promoted success.

4.3.6. Stage 3 – Securing Tenure

4.3.6.1. Unrealistic Goals and Objectives

Unrealistic goals and objectives undermined the first community forest initiative. The co-operative initiative was said to have been too "green". Moreover, the community wanted decision making power over the natural resources of the entire island, which was out of balance with existing woodlot licensees and First Nations interests. It was also

expressed that the first initiative was characterised by hasty actions and expectations, instead of careful thought and planning:

> You don't just do this and that and you get one, there's a lot more things involved. Interviewee 1

Under the corporate model, participants expressed that the overarching goals needed to become more pragmatic. For example, residents had to accept the fact that they might have to go off island to hire a forester. Residents at town hall meetings wanted to "do everything locally" (Interviewee 3) and the planning group had to explain that that was not necessarily possible to achieve success. Some planning group members also had to accept that logging would be a necessary part of a successful community forest.

There was also recognition that a formal provincial application process was in place, which required strong business planning with reasonable economic projections; a statement of interest coupled with brief and ambiguous goals was not sufficient. As one participant stated, it was a challenge to overcome the "simple thinking" (Interviewee 1) in order to realize the necessary scope for planning a viable community forest.

4.3.6.2. Weak Senior Government Support and Bureaucratic Inertia

Weak senior government support emerged as the single most significant challenge to securing tenure for a community forest on Malcolm Island. While the RDMW provided some funding, the earliest initiative did not have the full support of the board. Residents drew attention to their disproportionate representation on the RDMW board and the fact that their island was not a municipality. Overall, it was felt that they did not have enough political clout within the RDMW and could not make enough "political noise" to "become a blip on the MOF radar" (Interviewee 6). Regional government support may also have been compromised by excluding them as a community forest stakeholder.

Interviews portrayed an unfavourable rapport between Malcolm Island and the MOF

district office in Port McNeill, which had been strained by past personality conflicts and

community protest over provincial forestry practices (i.e. aerial spraying). Residents

expressed frustration with the MOF district office and believed they had shown a great

deal of resistance to the community forest concept:

> ...this office is strictly opposed to the idea. Interviewee 2
>
> You know the big problem in the process is getting MOF off the ground, or the local Ministry of Forests off the ground, you know, getting their support... we've got the community support. Interviewee 4
>
> If we had our local MOF office screaming and hollering: 'Let's get these guys a community forest... this is what we're going to do with our allocation' then at least it'd be noticed. Interviewee 6
>
> ...we met with a guy from the Ministry over there in Port McNeill, and they basically told us it wasn't on the agenda. And unfortunately, while it was claimed that it is a Ministry decision... the local [MOF] people have a lot more say in it, I believe. Interviewee 5

Support from the MOF district office was deemed very important to their chances of

getting wider provincial support and establishing a community forest.

Conversely, the MOF district office commented that they did not turn down Malcolm

Island's applications; rather it was up to the Minister to invite an application. The lack of

provincial support for Malcolm Island's community forest goals was explained to be

largely a political decision made by higher ranked provincial representatives:

> In addition, a well-organized and orchestrated process by one community to acquire a community forest could end unsuccessfully due to Minister objectives and timber availability while a less thought out community process could be successful based on economic need and political will. North Island District MOF

The MOF district office directed the community to get the support of the Minister who, in

turn, told the community that they had to get the MOF district office onside. The

protocol was not clear and residents felt each government office was "passing the buck."

There was also concern that the 2005 North Island MLA was NDP, and would have little

influence with the Liberal government:

> ...that's going to be even harder now that our current rep happens to be NDP
> and the current party in power is the Liberal government, so who's going to listen
> to us now? Interviewee 6

The MOF district office indicated that First Nations and RDMW would also likely be

interested should a community forest tenure be offered in the vicinity of Malcolm Island.

Malcolm Islanders resent what they perceive to be external government and corporate

influence; however, the MOF district office and provincial government might have been

more responsive to a community forest plan that included both First Nations and RDMW

as stakeholders. The present application process requires proof of community support

from surrounding First Nations, government, and industry. Although residents of

Malcolm Island see their community as self-contained, the MOF recognizes other groups

that may have an interest in the island's Crown land resources. Inclusion of 'Namgis and

RDMW could improve government support overall.

Malcolm Island residents are disillusioned with the lack of support from their North

Island MLAs, RDMW, District MOF, and the Minister of Forests. Residents recognize

the importance of building provincial support but feel helpless as an unincorporated

community in a rural resource hinterland dominated by corporate interests. Awareness of

the BCCFA was low and Malcolm Island was not a member at time of writing. Joining

the BCCFA could increase Malcolm Island's voice as part of BC's community forest

lobby. Support from the other groups may be fostered by expanding Malcolm Island's

idea of "community".

4.3.6.3. Resistance from the Industrial Forestry Paradigm

Malcolm Island residents believed that the lack of government support was related to the traditional dominance of large-scale industrial forestry in the region. The MOF and major forest companies have long been the most powerful institutions on the north Island. Within the RDMW 85% of the land base is Crown land, 75% of which is under five TFLs held by four major forest corporations: Western Forest Products, Canadian Forest Products, TimberWest, and Weyerhaeuser (BCMSRM 2005; Penfold et al. 2004). Many communities began as logging camps and have long standing ties to major forest corporations. However, Malcolm Island residents perceive MOF and major forest corporations as outside intruders whose interests overshadow community needs and desires. Many participants suspected an alliance that causes the MOF to favour corporate interests:

> ...they basically seem like they are just there to service the big tenure holders, not to service our district or communities. Interviewee 4

> The MOF would find it very difficult to take timber supply from the majors around Port McNiell and give it to a community forest, or give a Woodlot out around Port McNeill, because the Majors just wouldn't tolerate that. Interviewee 5

> One can surmise: why would you take 800 hectares out of Western Forest Products when you can just take it from Malcolm Island and make your quota? But that's just guessing... that relationship wouldn't exist... no. Interviewee 6

Convincing the province and forest companies to relinquish power over forest resources to the community level was seen as a major challenge to securing tenure. Participants felt it was very difficult to affect change in their region because government and corporate institutions are dominated by an entrenched industrial forestry paradigm.

While the MOF district office and RDMW were described as "archaic", even "parochial" in philosophy, participants noted that there were some junior employees in the bureaucracies who were more sympathetic to community forestry ideals and ecosystem-based management. The community had proposed cut rates and environmental goals that were not seen as acceptable as there was no promise of immediate returns to provincial coffers. Moreover, the fact that the community did not have an RPF to endorse their second "application" was thought to be a problem for the MOF. Therefore, several challenges beyond the MOF interfered with the "application" and there were continued weaknesses that made it easier for the MOF to "reject".

The MOF informed MICFC that it had planned to allocate woodlots on Malcolm Island and did not intend to change the plan. According to MOF interviews, the age class distributions on the island as well as the lack of timber allocations for community forests were key challenges to the initiative. In other words, the main issues were linked to timber resource shortages on the ground and senior-level policy constraints. From a logistical perspective, it was easier to have a number of woodlots on Malcolm Island because they would all be in the same place and so would be easier to administer. Residents were cynical and added that the woodlots were also just out of the shadow of Western Forests Products and the MOF office in Port McNeill. It could be that MOF finds it easier to administer a limited variety of tenures and deal with a small group of corporate clients that have long dominated forest policy on the North Island. Such challenges to CBNRM have also been noted in BC fisheries management (Pinkerton 1999).

4.3.6.4. Competition for Licences/Tenures

Both residents and the MOF district office acknowledged competition for cutting

licences as a challenge to community forestry on Malcolm Island. Residents said that

local individuals were vying for woodlot licences and lobbying for new woodlots to be

allocated on the island. Interviews revealed that there was a conflict of interest with one

original member of the MICFI who was really interested in a private woodlot and later

left the group to pursue that interest. The community was told that as many as 8

woodlots may eventually be allocated on the island. Supporters of the community forest

do not want more woodlots on the island because they feel that such tenures would not

benefit the wider community.

The MOF pointed out that regional competition between communities for community

forest tenures was a challenge to Malcolm Island's project:

> It is also important to note that while Malcolm Island has shown interest in
> a community forest, so have many other North Island communities. This
> combined with an increase in the size of the Woodlot program have placed a
> demand on a limited forested land base for new tenures.
> North Island District MOF

Demand for community forest tenures exceeds the present timber volumes set aside by

the province. Thus, the challenge of community competition is as much a resource

supply challenge as it is a challenge of existing provincial forest policy. The MOF is

having difficulty rebalancing timber allocations and awarding tenures in their region

according to recent program changes.

4.3.6.5. Poor Timber Profiles

The biophysical challenges to community forestry on Malcolm Island relate to its

logging history. The MOF questioned the suitability of the land base for community

forestry given the poor timber age class distribution. A participant with logging experience concurred that there was now an overabundance of hemlock on the island, which had replaced once predominantly cedar forests. Declining timber stocks and forest health was attributed to high grading by the previous major forest licensee. Less than 10% of the island's remaining forests contain merchantable timber and it will be decades before second growth forests regenerate. These issues present significant challenges to restoring the forest ecosystem and developing a viable community forest simultaneously.

4.3.7. Motivations for Community Forestry

4.3.7.1. Local Control

The residents of Malcolm Island felt very strongly about increasing local control over the island and its natural resources through a community forest. Malcolm Island is a discrete island community that does not identify with off-island culture, politics, or economy. Many were concerned about the eventual return of major forest companies and further senior government influence. The community was interested in managing local forests to ensure that community values would be reflected in planning and decision making. The above points emerged when participants were asked about the motivations for community forestry:

> We want to be managing the forest, we don't want to be having a woodlot licence and operating under the forest district's plans. We want to plan our forest. We don't want to [have] AACs that they set. We don't want to be tied to their management principles. We want to figure out what will work for our community, and make that happen. It's obvious we can't trust the district [MOF] to manage our island effectively, to manage the forest here. It's obvious by what you see when you walk around on this island. And we wanted the chance to do it differently. And we want to do that under our terms, not theirs. Interviewee 4

> ...try to manage what we considered to be our forests, within our community, for the benefit of our community. That might seem somewhat isolationist, but as I

said before this is a clearly defined, and I might also say, independent minded community, who in a lot of cases resents intrusions from off the island. Malcolm Island is well known for hating the Regional District, hating Port McNeill, and hating Port Hardy. And when I say that, I mean a good portion in the Island, not all of us. Some of us are more neighbourly. Interviewee 2

It really isn't just about acquiring a piece of land and going in and cuttin' some trees and providing a couple guys some jobs. That's great and we want to do that, but there is this bigger underlying philosophy to it: how can we as a community take control of our own destiny and promote what we as a community value and see as important? Interviewee 6

I never went into it thinking that we were going to be able to do something immediately, I went into it thinking we needed to get control of it... get control of it now so that later we could benefit from it. Interviewee 5

Having the power to make decisions locally was a common sentiment. Comments were linked to the legacy of corporate and provincial control that has influenced the community, and the lack of accountability in such institutions. The core issue was the disparity of power; economic and environmental benefits were secondary.

4.3.7.2. Economic and Environmental Benefits

Economic motivations were indeed related to the depressed local economy. The decline of fishing and forestry employment has significantly impacted the community's socioeconomic well-being and has caused population decline and youth outmigration. One resident described what it was like to live on Malcolm Island during the forestry boom, and the transition of the resource economy:

When I was a kid, I lived out in Mitchell Bay, I mean, the logging trucks... you couldn't go over that road before 6:30 in the morning... like they had to be at the camp at 6:30, couldn't go home until 5:30 cause there was, like, trucks. It was like a full scale camp... big logging camp... and equipment would go up on the [barge] every year to these camps before them. So there was not hardly a person in this town who didn't go fishing in the summer, and come September, threw the chalk boots back on and logged all winter. And that's just how we survived. And it's changed so much. I mean what little logging happens here is the little one-man show kind of thing. Interviewee 3

Residents felt they had been giving their resources and opportunities away for years,

while the benefits from forest harvesting had never reached their full potential because

they were going elsewhere:

> Probably, it's looking out your window and seein' all the jobs, and the revenue
> from those jobs, going to somebody from off-island through other forms of
> tenure. Interviewee 2
> ...it just seemed like... if there's wood going down on this island, getting taken
> on this island, getting cut, it needed to benefit the community. Interviewee 4
>
> I think it would be able to make the community to be able to see something back,
> rather than the money going off island. So creating the jobs was a big thing.
> Interviewee 3

The community wanted a community forest to create local jobs in forest management and

value-added, and increase returns by diversifying forest resource use.

Community forestry was also seen as a management model that would facilitate the

incorporation of environmental values. The issue of control of resources was often linked

to the community's desire for environmentally responsible logging practices. Though

community values were diverse, there was a common commitment to maintaining forest

and community health. For example, one participant pointed out that resident loggers

were "not just dollar making power saw operators" (Interviewee 1).

Table 5. Multidimensional View of Challenges to Implementing Community Forestry, Malcolm Island

		Social Subsystems					Biophysical Subsystem
		Political	*Social/Cultural*	*Economic*	*Institutional*	*Res. & Info.*	*Biophysical*
Stage 1	*Local*	building awareness & support					
Stage 2	*Local*	Maintaining support amidst sceptics & lack of progress; no champion; inefficient participation e.g. town halls; achieving stakeholder consensus; land claims; prov. elections.			co-operative not formalized, no effective central body.	limited forestry experience/knowledge; huge volunteer time/effort; lack of capital; no RPF.	
Stage 3	*Local*	Unrealistic goals & objectives; too green & simplistic.		competition for licences.			age class distribution; very little timber left.
	Regional	Weak support of RDMW; First Nations not included.			Resistance from industrial forestry paradigm.		
	Provincial	Weak support of Forest Minister, district MOF & MLA; Bureaucracy.		competition for CF tenures	Resistance from industrial forestry paradigm.		

4.4. Case Study 3: Cortes Ecoforestry Society & Klahoose First Nation

4.4.1. Community Context

Located at the entrance to Desolation Sound in the Straight of Georgia, Cortes Island is the northernmost Gulf Island. With a land base of 136 km², the Island is about 25 km long, 13 km wide, and has an irregular shoreline (Silva Forest Foundation 1996). The island has a variable terrain that ranges from steep-sloped insular uplands in the north, to relatively low-lying flat lands in the south (Cortes Ecoforestry Society [CES] 2002).

113

Much of the central island is characterised by a mix of rocky hills and well-drained basins of productive forest land.

Homesteaders settled Cortes during the late 1800s and early 1900s. Subsequently, most of Cortes Island was clearcut and burned as the old growth forests were cleared for agriculture (CES 2002). Given the precipitous topography in the north, settlement concentrated in the southern parts of the island. These lands represented the best sites for homesteading from the standpoint of slope and productivity, and not surprisingly, forest growth. MacMillian Bloedel (MB) began to purchase these prime lands from homesteading families in the 1950s and 1960s (Klahoose, CES, and Weyerhaeuser 2000). As a result, corporate interests now own a good portion of the best lands on the island.

Approximately 50% of the island is Crown land (39% or 5305ha) and government protected areas (10% or 1428ha) (Silva Forest Foundation 1996). Another 34% (4714ha) rests in a number of small private holdings. Major forest interests have long owned about 14% (1876ha) of Cortes, although this has decreased slightly over time with land sales. The remaining 3% forms two Indian reserves for the Klahoose First Nation (Coast Salish) who have outstanding territorial land claims on Cortes.

Cortes Island's zoning and planning is handled by the Regional District of Comox Strathcona. When regional governance was introduced in the late 1960s, the Cortes community lobbied to have the island become an electoral district unto itself, with one representative on the regional board. Due to its distinct representation, Cortes Island has more autonomy than many other small unorganized communities.

While logging has been important to local history, the island's culture and economy has changed over time. The inflow of newcomers and residential development concerns

community members who want to sustain forest lands and maintain local culture. From 1995 to 2001 the island's population increased 6% to 938 (Statistics Canada 2001). The population swells considerably during summer months with seasonal residents and tourists who come to enjoy the enchanting island setting.

Recent socio-demographic profiles reveal a highly educated adult citizenry on Cortes who are employed mainly in professional and service industries (Statistics Canada 2001). Just under half of the total population is between the ages of 35 and 64 and more than 40% of them have a university education, while an additional 29% have a college education or trade certificate. Moreover, 44% of the working population works in health and education and business services, while agriculture, resource industries, construction, and manufacturing together account for 23% of employment. Forestry is not the main economic driver. There is, however, a diverse group (about 55 persons) of craftspeople, artisans, builders, and labourers with links to local forestry and forest value-added (personal communication, CES, February 2006).

4.4.2. Origins of the Community Forest Movement on Cortes Island

The Cortes Island Forestry Committee (CIFC) was formed in 1988 in response to clearcut logging on private lands by Raven Lumber and MB during the 1980s (figure 7). The return of large-scale industrial logging practices contrasted greatly with what residents were used to: smaller operators, lower technology activities, and slower harvest rates that appeared to have less impact on the land. The CIFC negotiated with the forest companies and MOF to encourage ecologically responsible forestry practices. They also engaged Cortes residents to build awareness and support for sustainable community forestry through newsletters, conferences, and public meetings.

115

Figure 7. Time Line of Key Events, Cortes Island
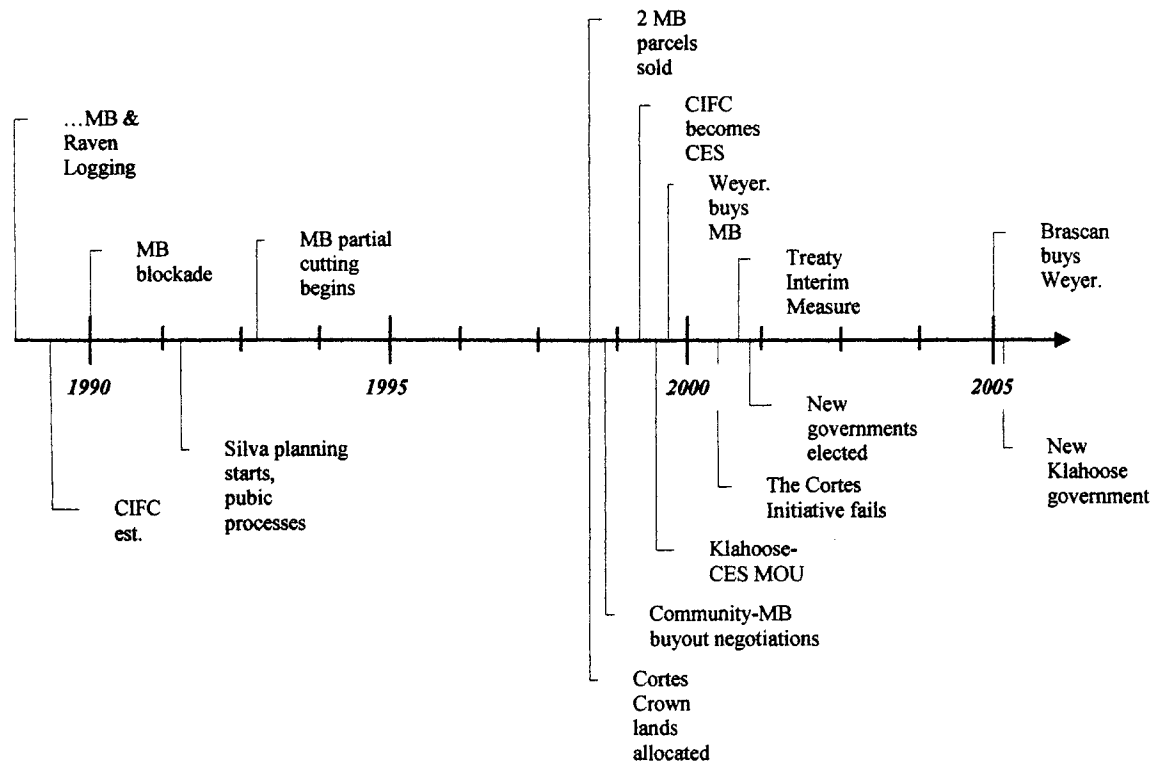
Community concerns peaked in 1990, when non-aboriginal residents joined a

Klahoose led protest of MB's plan to continue clearcutting on lands adjacent to the

Klahoose village at Squirrel Cove. It was a two day blockade of 125 men, women and

children. MB had an interest in defending their public image and recognized the

commitment of the Cortes community. They agreed to stop logging on the island until a

plan could be developed that would satisfy community interests.

At the same time, a CIFC conducted survey found that 86% (n=300) of the non-

aboriginal community wanted to maintain forest integrity as a primary value (CES n.d.).

Much at the instigation of the Klahoose Chief and Council, a good rapport between

Klahoose and CIFC was also being developed. While MB was evolving a new

harvesting plan for Cortes, the CIFC commissioned SFC in 1992 to create the Cortes

116

Island Forest Plan. The idea actually came from the Klahoose who had previously engaged SFC for planning work in their traditional territory. In preparing the plan and becoming familiar with ecosystem-based forestry principles, there was a lot of internal community debate as to the true level of harvesting that would support long-term forest sustainability. MB returned in 1993 with a partial cutting plan that was grudgingly accepted by CIFC and logging resumed for five years until 1998 (Klahoose, CES, and Weyerhaeuser 2000).

However, the residents became increasingly uncomfortable with MB's operations, and the whole concept of community forestry was gaining interest on a provincial scale. Cortes residents were alarmed by two pivotal events during the winter of 1998-1999: 1) without prior notice, MB sold two land parcels to a known timber liquidator (owner of 4064 Ltd.) and; 2) the Minister of Forests allocated the Crown lands on Cortes to Canadian Forest Products without the legally required consultation of Klahoose or community involvement (Klahoose, CES, and Weyerhaeuser 2000). These events combined to solidify desires for local control of the island's forest resources. Subsequently, the Cortes Ecoforestry Society (CES) was formed to replace the ad hoc CIFC so that non-aboriginal residents would be represented by an official entity.

Klahoose was actively pursuing a purchase proposal for MB parcels near Squirrel Cove when CES followed their example and made their own purchase proposal to MB in November 1998. These actions gained the attention of MB's environmental vice president responsible for negotiations in Clayoquat Sound and the Great Bear Rainforest. In March 1999, MB agreed to discontinue logging on Cortes until CES, Klahoose, and MB could resolve negotiations. Klahoose and CES realized the potential difficulty of

raising 15 million dollars to buy MB's land and so approached the provincial government

for ideas on how MBs land could be transferred to Cortes Island residents. Weyerhaeuser

then purchased MB in fall 1999, but was bound by provincial conditions to maintain

good faith negotiations with Klahoose and CES (CES n.d.). Purchase plans soon failed

as the parties could not agree on a price, but negotiations continued.

At the same time, Klahoose and CES learned of BC's new Community Forest Pilot

Project. The evolution of a working arrangement between the Klahoose and non-

aboriginal residents resulted in the signing of a Memorandum of Understanding in July of

1999:

> The Memorandum committed the parties to working together to implement eco-
> system forestry on Cortes Island's forestland base, and stated CES' commitment
> to a just resolution of Klahoose treaty rights. The Klahoose First Nation and CES
> determined to work together to obtain a community forest on Cortes Island.
> (CES n.d.: 1)

Community consultation was undertaken by CES during 1999 and 2000 for the planning

and preparation of a community forest proposal, while Klahoose and CES continued to

work together towards the mutual goal of forming a community forest.

Negotiations between Klahoose, CES and Weyerhaeuser led to the development of an

innovative three-way proposal to settle the Cortes land use conflict. The Cortes Initiative

proposed to convert Weyerhaeuser's Cortes lands to Crown status in exchange for Crown

lands elsewhere; a community forest could then be created on the new and existing

Cortes Crown land to be managed together by Klahoose and CES using ecosystem-based

principles (Klahoose, CES, and Weyerhaeuser 2000). The proposal was presented to the

provincial government in May 2000, but was turned down by the Minister of Forests on

the basis that Weyerhaeuser wanted too much compensation for their lands and that there

was unresolved traditional boundary issues between Klahoose and a neighbouring First Nation. The community felt this was a hollow rejection as the boundary issue had, in fact, been resolved between the two First Nations. Moreover, the proposal had First Nations, community, and industry support, a partnership structure, business plan, and management plan complete with maps.

Klahoose then pressed forward and repackaged The Cortes Initiative as a Treaty Interim Measure. With support from the Premier, MOF bureaucrats in Victoria were directed to advance the process. In March 2001, a framework agreement was finally signed by Klahoose, and the provincial and federal governments:

> This agreement provided the opportunity for the Klahoose First Nation to apply for a community forest pilot agreement for the Crown lands on Cortes as a Treaty Interim Measure, including provisions for ecosystem-based forestry and a management partnership with CES. (CES n.d.: 2)

After a decade of protest, planning, and negotiations it appeared that a community forest would finally become a reality on Cortes Island.

However, about two weeks after the Treaty Interim Measure was signed a provincial election was called and the agreement was dropped. CES also lost Klahoose support with the parallel election of a new Chief and Council during the spring of 2001. A federal declaration to expand band voting rights to off-reserve members became a significant factor in the Klahoose election. A greater number of Klahoose live in the Powell River area of mainland BC and so off-island, off-reserve votes greatly determined the outcome of the election. The new Chief and Council had other priorities and did not support the community forest movement or working relations with the non-aboriginal community.

CES continued to explore their own community forest options and provincial representatives seemed receptive but they were unwilling to support a community forest

effort without Klahoose support. Without Klahoose and government support, there was little chance for a community forest on Cortes Island. Weyerhaeuser's coastal operations were then bought by Brascan Corporation in early 2005 and their Cortes lands were taken over by a subsidiary, Island Timberlands. While communication and negotiations over the sale and management of their Cortes holdings continue, parcels have been slowly sold to independent buyers with little notice.

Although the primary mandate is to acquire lands for a community forest, CES remains active in monitoring forest related activities on Cortes Island, and has struggled to maintain community support. Klahoose elections in April 2005 resulted in a new Chief and Council who appear to be more sympathetic. Subsequently, CES was invited to the Klahoose Band Hall in November 2005 for the first time in four and a half years (CES 2005). There is a new optimism that Klahoose and CES can revitalize collaborative efforts to form a co-managed community forest.

4.4.3. Key Challenges to Community Forestry

Key challenges to community forestry on Cortes Island are presented and discussed below. Stakeholder interviews revealed several different factors that were influential at different stages as the process unfolded. A summary of these challenges are presented in Table 6 at the end of this section.

4.4.4. Stage 1 - Preliminary Investigation

4.4.4.1. Low Initial Support and Awareness for Community Forestry

Community support was high for stopping industrial logging on Cortes Island. The poor public image of MB through the mid-1990s likely contributed to opposition from

120

both aboriginal and non-aboriginal residents. Cortes residents wanted to increase their involvement in forest management, but it was not initially clear that community forestry was even an option or an appropriate vehicle. Support for the community forest concept took a long time to develop:

> I think the first challenge that any community encounters is informing and educating and engaging the depth of interest for a community forest within its own membership... and I think getting people to consider and address and discuss and debate the benefits or problems associated with local control and so on. I think that's something that's been going on in the province over the last 20 years and certainly on Cortes over the last... very close to 20 years now. Interviewee 1

> A big part of the process was trying to get as many people on the island on board with that idea and the way we approached that was mostly through education and talks. We did mail out questionnaires... pretty much our own initiative of trying to get a sense of how popular this idea was and any contributing ideas that would come from the community. And that really went on for about 2 or 3 years until we felt like we were ready to actually work on the proposal to government. Interviewee 2

Building support for community forestry was directly related to increasing community awareness, which required significant time, energy, and community discourse before moving on to the proposal stage.

4.4.5. Stage 2 - Proposal Development

4.4.5.1. Difficulty Reaching Consensus and Weak Local Support

Several large community meetings provided a forum for community discussion between individuals with different interests who, under other circumstances, might not usually have convened:

> You know, there was a lot of really tough meetings where we really had to get down to bare bones of things where it was really hard. Interviewee 3

Participants commented on the great deal of time and internal community debate necessary to reach some form of consensus as to the appropriate goals and objectives,

management approach, and organizational structure for the planned community forest. However, it was noted:

> You'll never get a complete consensus because you're always going to find some portion of the people that just won't like new ideas or changes. Interviewee 1

A high degree of support in the non-aboriginal community was evident with the formation of CES and the survey that was later conducted to gauge local forest values. Still, a portion of the community remained either opposed or indifferent to plans to pursue a community forest, which was an ongoing challenge to community involvement during the proposal stage:

> I think the biggest challenge is with nay sayers and detractors on the island that really felt that they mistrusted an open process, they felt that everything becomes personalized, and on a small island... you try to do anything and you're gonna get criticism from some faction, but um... you know, you don't just change peoples' minds, they're set in their ways, and they don't want to get on board, they'd rather out their energy into attacking it. Interviewee 2

Evidently, a similar rift existed in the Klahoose community:

> We also found out, eventually by around the year 2000 that the native community had that same sort of split in that even though we were working with people in Klahoose on this proposal, there were many people in the band that felt left out, or that this wasn't actually something that they wanted to see happen. Interviewee 2

Some Klahoose and non-aboriginal residents were quite willing to maintain the status quo and leave forestry matters to industry and the MOF.

It became very difficult to persevere after the defeat that resulted from the provincial and Klahoose elections. Community support was hard to maintain as the cause remained idle for over four years with no avenue to advance tenure negotiations:

> ...our primary reason for existing has been on hold and so it's been very difficult to continue to engage a membership when there is nothing to engage them around. And it would not behove us to continually try to engage them when it's false to do so... to have a bunch of community meetings just for the sake of community meetings. Interviewee 4

I think it's really hard when you're on a board too like that... you can't actually show the membership anything real, because it's all up in the air. Interviewee 3

Maintaining local support both on the CES board and within the community without being able to demonstrate progress was cited as an ongoing challenge.

4.4.5.2. Poor Relations between Individuals

Local consensus and support challenges are linked to poor social relations that stem from different family histories and cultural differences. The non-aboriginal community was described as being divided between descendants of early settlers employed in farming and resource extraction, and back-to-the-land migrants who started coming to the island in the late 1960s. It was suggested that this contributed to a "Hatfield and McCoy" dynamic on the island:

> ...there's constantly that duality on the island, that is rooted out of a lot of misplaced fear and anger and misunderstanding and non-listening, and typical stuff on both sides. Interviewee 4

Differences in social and cultural backgrounds contributed to stereotypes and challenged community relations and involvement in the community forest planning process.

Individual reputations were also called into question:

> You run into people who just don't see it that way and won't accept it... either philosophically or for personal reasons... take it out against you, you know... and start calling you down and spreading misinformation, and suggesting people are doing this thing just for their own personal aggrandizement, agenda, or benefit. Interviewee 1

> Individuals can both make a huge contribution and can also make a huge mess, you know, depending on how they feel about the whole thing. And it isn't always simple. The reason why one person doesn't get along with another isn't over this issue at hand, it's about something that happened 30 years ago about something they still haven't resolved, and yet they're gonna carry that on and it'll colour everything that's going on in the present moment. Interviewee 2

Personal credibility and trust between community members were ongoing challenges due to shared histories and "small-town politics".

4.4.5.3. Human Resource Limitations

Klahoose has a strong leadership tradition and good negotiators. The band has developed an effective organization for managing a range of band activities. Conversely, it was a major challenge for the non-aboriginal community to reach a similar level of organization in order to be a useful partner in collaborative efforts:

> ...in the early stages we were just so outshone by the Klahoose in terms of strategical ability and, you know, they were just so together on everything, and we're like the volunteer board with not a lot of expertise. I mean a lot of commitment and actually a good degree of expertise in terms of forest ecology, but we were just at a different level of preparation than them and we had to keep working to pull some of the weight. So that was a big challenge then, was building capacity and volunteer organization. Interviewee 5

Even though the non-aboriginal population was well educated and skilled, it was a challenge to generate individual awareness and a common understanding of the relevant issues. People with technical and professional training had to be organized into a proactive volunteer network and some planning expertise had to be contracted off-island. Dependence on a volunteer network was also a challenge as those involved in the planning process were not being paid and had other commitments to work and family. Participants described capacity limitations as a challenge of living in a small community:

> If you're dealing with a rural community, you're dealing with a finite population base, and the skills and experiences of those people is key to how you make this happen, and whether it's going to happen. Interviewee 6

4.4.5.4. Forest Health, Degraded Site Conditions, and Timber Profiles

The importance of forest health and timber profiles became increasingly clear as ecosystem-based planning proceeded. Participants acknowledged that degraded site

conditions and poor timber profiles would be a limiting factor to promoting forest

ecosystem health and economic viability:

> In terms of the forest land base itself, you're dealing with a relatively confined area. I mean it's small by forest operation standards, scale wise, and you're starting from the position of a much degraded land base. This is not old growth forest, I mean, it's forest which has been logged, or burned several times already. So we're not just talking about a community taking over and doing industrial forestry, we're talking about a community taking over and implementing ecosystem-based forest management, which among other things means aging the forests over time so we can regain some of the old growth attributes of a fully functioning forest ecosystem. Interviewee 6

Thus, the current state of the forest was seen as a challenge given the ecosystem-based

management approach the community wanted to implement.

4.4.5.5. Competition

Competition for forest lands with other buyers was always a potential threat that could

erode the proposed community forest land base. The original MB lands were desirable

for logging and community forestry from the standpoint that those parcels were some of

the best lands on the island. The first two MB parcels that were sold during 1998-1999

were put on the market without notifying community stakeholders. The purchaser was

well-connected to business with financial and market backing as well as processing

capabilities. Klahoose and non-aboriginal residents had no opportunity to bid on the

properties. Indeed, land sales have been an ongoing challenge while the community

forest initiative has been dormant.

4.4.6. Stage 3 - Tenure Negotiation

4.4.6.1. Unsupportive Existing Provincial Policy

Access to land, securing tenure, and gaining the rights to manage forest land were

raised as key challenges to the Cortes community forest. Participants linked this problem

to the fact that their efforts preceded the development of supporting provincial

community forest policy:

> In the early 90s, Cortes was proposing a community forest to the provincial
> government, long before the provincial government was there policy wise. You
> know, that just went nowhere. It's really just in the last number of years that the
> provincial policy has changed sufficiently to incorporate community forestry as
> part of the forest regulatory system in the province. Interviewee 6

> We were actually talking about a community forest before that legislation came
> into place, so once that came in, then it sort of reinforced our approach, you
> know, that we weren't just going off on a tangent on something that wasn't
> practical and achievable. Interviewee 2

> ...we were sort of a proposal without a government framework. Interviewee 5

The deadline for the CFPP came and went, yet Klahoose and CES continued to explore

other avenues for the creation of a co-managed community forest and the exit of

industrial interests. Participants remarked that it seemed necessary to conceive a very

sound plan that could be simply handed over to government bureaucrats for

implementation. The local determination was there to create innovative plans, but the

lack of existing policy made it very difficult to execute.

4.4.6.2. Parallel Policy Processes and Weak Support from Klahoose and the Province

The most important perceived challenge to securing tenure was the sudden election of

unsupportive governments at the band and provincial levels in 2001:

> ...the ultimate downfall was simply elections all the way around. Interviewee 3

> ...there was the election when the Liberals first got elected, and at Klahoose there
> was an election where a more conservative chief was elected... more, you
> know... more aligned with conventional forestry. So on both sides, you know,
> there was a certain agreement, but both sides stepped away and said 'we want
> nothing to do with that.' Interviewee 5

Residents expressed their frustration with political processes that influenced them directly, but that they could not influence themselves. Neither election went in favour of the formation of a Cortes community forest.

The loss of Klahoose support was deemed more critical than that of the provincial government as the CES was committed to forming a community forest with First Nation participation. Negotiations might have continued if a sympathetic band council had been elected. Interviews with community members and the MOF indicated that the incoming Chief and Council had different priorities and did not support a Klahoose-CES community forest or ecoforestry:

> ...the new chief was completely uninterested in the whole thing. The whole thing just fell out to the way side. Interviewee 2

The 2001 new BC Liberal government was not prepared to follow through with the plans of the previous government. In the period after the elections, CES met with senior provincial representatives from the MOF, district MOF representatives, and the MLA for the North Island, but they did not support CES proposals for a community forest without Klahoose involvement:

> they were not prepared to push it against the Klahoose First Nation Chief and Council who were not in support of it. So until that changes, it wasn't going to happen as far as the Liberals were concerned. Interviewee 1

> As the provincial policy framework has evolved, and as the court decisions have come down about First Nations' rights and title in BC, it has become virtually impossible to proceed with a community forest in our circumstance without the support of the First Nation. And over the last four years the non-aboriginal community has not had that support from Klahoose. Interviewee 6

> You have to have the First Nation thinking that it's a really good thing for the land and you have to have the government behind it. Without either one of those elements it's a no-go. Interviewee 5

A MOF representative stated that the province did not support The Cortes Initiative in 2000 because it was, "leery of compensating companies with Crown land for private." It appears the provincial government was reluctant to set in motion a land exchange deal that might be seen as a quick solution to numerous other land use conflicts involving First Nations, industry, and community groups. Indeed, The Cortes Initiative was presented to cabinet as an innovative solution to such problems. The province also had concerns for the potential administrative challenges related to the reorganization of tenures, obligations to protect Crown lands, and community capacity for forest management. Low government support was also attributed to concerns for the credibility of community organizations, relinquishing power to local associations, and decreased financial returns from community managed forest land.

4.4.6.3. Poor Social Relations

Small communities are often characterised by antagonistic relationships and personality conflicts that stem from shared histories. It was apparent from interviews that Klahoose community relations were strained by personal conflicts between the candidates that ran in the 2001 band election. Misinformation was spread that contributed to a dubious election outcome, which shifted Klahoose priorities, collapsed relations with non-aboriginals, and weakened government support—a testament to the power of personalities.

4.4.6.4. Resistance from the Industrial Forestry Paradigm

Both Klahoose and CES wanted to implement ecosystem-based forest management, which contrasted with provincial government and MOF priorities. Comments reflected

key value differences that challenged provincial acceptance of a Cortes community forest:

> in dealing with the government you sort of get the feeling here, when you start to talk about ecosystem-based forestry you get the feeling that "oh, you're just a bunch of tree huggers and..." but it seems like it's really basic things that we're talking about, you know, we're talking about forests that hold the water so that the water table doesn't go dry in the summer, and it filters the water for us so we have good water, and it replenishes the air so that we have clean air. They're just fundamental really. Interviewee 5

The community was concerned with a range of values (e.g. water quality, tourism, aesthetics, wildlife habitat, forest health, local conflict resolution) while the province focussed on timber production and economic returns. There were also notable differences in what each party deemed to be a sustainable rate of harvest.

According to the MOF, the fact that the community wanted control over the entire island and a reduced cut did not sit well with the provincial government which did not want land taken out of timber production. One Cortes resident suggested that the community had a good rapport with the District MOF until they came up with the idea of establishing a community forest. The MOF wanted to support the "traditional MOF approach to managing forest lands" (interviewee 1). Participants linked government resistance to the overriding interests of large forest companies and labour unions:

> they [MOF] don't want to be seen to support something that will diminish, for the major corporations who control so much of the forest cutting in BC, something that will diminish the forestry corporations, the big corporations, from cutting as much as they would like to cut, or feel they need to cut. Interviewee 1

> even a so called progressive, left-leaning government, was not willing to go down the community forest route I think for not mysterious reasons... you know their ties to big labour. Big labour needs big corporations... big land bases on which to operate... so the IWA, the forest union historically in the province, opposed community forestry 'cause they saw it as cutting into their turf. Interviewee 6

The province remained faithful to the well-established high-volume, productionist BC forestry model, instead of adapting to facilitate a small-scale model for sustaining ecosystem-based values, which would add complexity and create more work for provincial policy makers.

From the MOF's perspective, it was a matter of mismatched ideology; the community's concept of community forestry was too preservationist and did not fit within the provincial tenure framework. The MOF also commented that the province was awarding community forest tenures as local economic development opportunities, not conservation opportunities. The community had made it abundantly clear that they wanted to take control of the island to implement ecosystem-based management— seemingly radical objectives given current provincial objectives. There had been discussion of smaller tenure or woodlot management opportunities for Cortes Island that would provide economic opportunity and a chance to gain experience. However, the community remained very dedicated to their own vision for a community forest and ecosystem-based management. Accepting a woodlot licence might provide a start, but might also detract from the primary, long-term goals. The province too adhered to its own model for community forests and did not want to make exceptions that would break the technical management mould.

4.4.7. Motivations for Community Forestry

4.4.7.1. Local Control, Responsible Forestry, Economic Stimulation

As in many other locales, the motivation for community forestry on Cortes Island began with residents who resisted the control of large-scale forestry companies and logging practices that were deemed socially, economically, and environmentally

130

unsustainable. The impetus behind community monitoring efforts and eventual logging

protests was decidedly environmental; however, interviews revealed more fundamental

issues beneath the surface that related to power and value differentials between an

isolated and independent island community and far-removed government and industry

decision-making authorities:

> I think it was... primarily it was the sense that the planning and the direction things were going in, was completely out of our hands, you know, it was in the hands of the government Ministries, the MOF in Powell River and, you know, they work on their own plans and they aren't that good at interfacing with communities. Interviewee 2

> the Crown land doesn't just belong to forestry companies, and we should have... communities should have a say in what happens to the Crown land and how it's looked after. Interviewee 3

> the community has to live with the results of whatever is done on the land base on Cortes and, therefore, I would say naturally, would like to be a player in making those decisions about how those activities are going to be carried out and what the end results are going to be like. Interviewee 1

> ...they would come from over seas and bring their plans and tell us what was good for us... similar things happened from even further a field... with the Crown operators, the Crown district manager is in Powell River as well. So it was all off-island... and Cortes didn't like people from off-island telling us what they were going to do. Interviewee 6

In many respects it is a classic hinterland dilemma, although Cortes' land base is no

longer perceived locally as a resource storehouse. There has been sociocultural and

economic transition over time so that the community does not depend solely on resource

extraction. First Nations and non-aboriginals are working to increase recognition for

what they consider to be a homeland and demand increased local involvement in forestry

matters within their community. When asked about community motivations for

community forestry, participants recognized economic and environmental opportunities,

but the underlying motive was increased local control. Participants believed that

community control would lead to more sustainable forest management, improved forest

health, and economic vitality.

4.4.7.2. Development Pressure

Concerns for development pressure were directly related to forest conservation and

quality of life. Securing control of the MB/Weyerhaeuser parcels was important to

community forest plans for economic and environmental reasons, as well as guarding

against development by off-island purchasers seeking to "log and flog" the land. There

was potential for further subdivision and development with each land sale from major

holdings:

> You know, on a place like Cortes the pressure to convert the forest into residential
> use is high, and so every road that they built was a potential subdivision.
> Interviewee 2
>
> in places like Cortes which has a constrained land base, I mean, there's the whole
> issue of ongoing population growth... agricultural and forest lands are seen as the
> natural future expansion areas for human settlement and how well we manage
> those issues as a long term planning question will be huge in terms of whether we
> continue to have an operable, viable forest land base of sufficient scale and
> quality that, you know, it makes sense to operate it as a business enterprise.
> Interviewee 6

Cortes Island is an attractive place and residents want to protect the island from rampant

development that could have environmental, economic, and cultural implications.

Continued logging on private lands could be followed by land sales, subdivisions, and

more people. In many respects, local control was a way to avoid unwanted changes to

physical and human landscapes. As well, this case study points to the need to consider

regulations for private forest lands; residents are otherwise compelled to take matters into

their own hands.

Table 6. Multidimensional View of Challenges to Implementing Community Forestry, Cortes Island

		Social Subsystems					Biophysical Subsystem
		Political	*Social/Cultural*	*Economic*	*Institutional*	*Res. & Info.*	*Biophysical*
Stage 1	*Local*	poor awareness & support for CF					
Stage 2	*Local*	maintaining support amidst detractors; difficulty reaching consensus	"Hatfields & McCoys" dynamic colours relations; personality conflicts	competition for land & land sales		building capacity; limited talent pool; organizing and all volunteer network; burnout	degraded site conditions & forest health; poor timber profiles
Stage 3	*Local*	Klahoose elections; weak First Nation support; competing Klahoose priorities	personality conflicts				
	Provincial	inadequate existing policy; provincial elections; ongoing land claims; weak provincial support			resistance from industrial forestry paradigm		

4.5. Case Study 4: Creston Valley Forestry Corporation

4.5.1. Community Context

The community of Creston is located in the Kootenay region of BC's interior, just

north of the US border. The 8.5 km² town site lies in the scenic Kootenay River Valley,

bounded by the Selkirk and Purcell Mountains. Incorporated as a municipality is 1924,

the current population is 4795 (Statistics Canada 2001). Creston is surrounded by a

number of unincorporated communities and large tracts of Crown land within the

Regional District of Central Kootenay (Creston 2005). The Lower Kootenay Indian

Band (of Ktunaxa First Nation) has 25.5 km² of reserve land in the vicinity (Department of Indian and Northern Development [DIAND] 1997).

Mining was the main interest of the first white settlers who pushed north from the US via the Dewdney Trail in the late 1800s (Creston 2001). But by the early 1900s, agriculture and forestry became the main drivers of the local economy. The first sawmill was built in the first decade of the 1900s and fruit and grain agriculture became highly productive.

As in the rest of BC there has been some recent transition in Creston's forest economy. Crestbrook Forest Industries began scaling back operations in the early 1980s, closing its Creston mill in 1990 (BC Stats 2001). Wood processing operations were moved to nearby Cranbrook so that half of the wood harvested in the Creston area is now processed in Cranbrook. J.H. Huscroft Ltd. and Wyndell Box Ltd. are the largest primary lumber mills currently operating in the Creston area, consuming about 260 000 m³ of wood annually (Creston 2004). Regional wood shortages have made these local mills considerably dependant on private wood supplies to maintain operations.

Manufacturing is important to the local economy given the links to agriculture and forestry. In 2001, 85 people were employed in agriculture and other resource-based industries, while another 335 people were in manufacturing and construction industries (Statistics Canada 2001). Planning objectives focus on the expansion of value-added and secondary industries to "help ensure raw resources from the agricultural and forestry sectors, as well as other sectors, do not leave the Valley before processing has taken place" (Creston 2005: 8). The Columbia Brewing Company, the largest brewery in western Canada with annual beer sales of $440 million, employs many local people. The

brewery, fruit industry, and town water supply depend heavily on water from the Arrow Creek watershed, an 8500 ha watershed located 8km northeast of town on Crown land.

4.5.2. Origins of the Creston Valley Forest Corporation

The Creston Valley Forest Corporation was formed due to enduring pressure to harvest the Arrow Creek watershed. Since the 1970s, residents had fought to keep clearcut logging out of Arrow Creek, largely due to concerns about the potential impacts on water quality and quantity that could jeopardize domestic and industrial water supplies (figure 8). The last harvesting in the watershed was some high grade logging done by J.H. Huscroft during the early 1970s. With their exit, local residents were adamant that Arrow Creek be preserved.

By the late 1970s the community was embroiled in a controversy over logging, wood shortages for the local mills, and claims that environmental constraints were limiting timber supplies around Creston. Both watershed protection and local economic development were major flash points and environmental values were gaining consideration in forest management. In an attempt to mitigate conflict, the Minister of Forests came to Creston in April 1977 to introduce a new idea for a Public Advisory Committee (PAC). At that time, public participation in the forest management was in vogue and growing. The first of its kind in BC, the PAC would advise on the management of Crown lands around Creston. Composed of a cross-section of community and industry representatives, the PAC had monthly meetings with presentations from the Forest Service and industry about current forest management issues. Much to the chagrin of local industry, the committee made recommendations to MOF to reduce the AAC due to depleted timber stocks and environmental concerns.

Figure 8. Timeline of Key Events, Creston
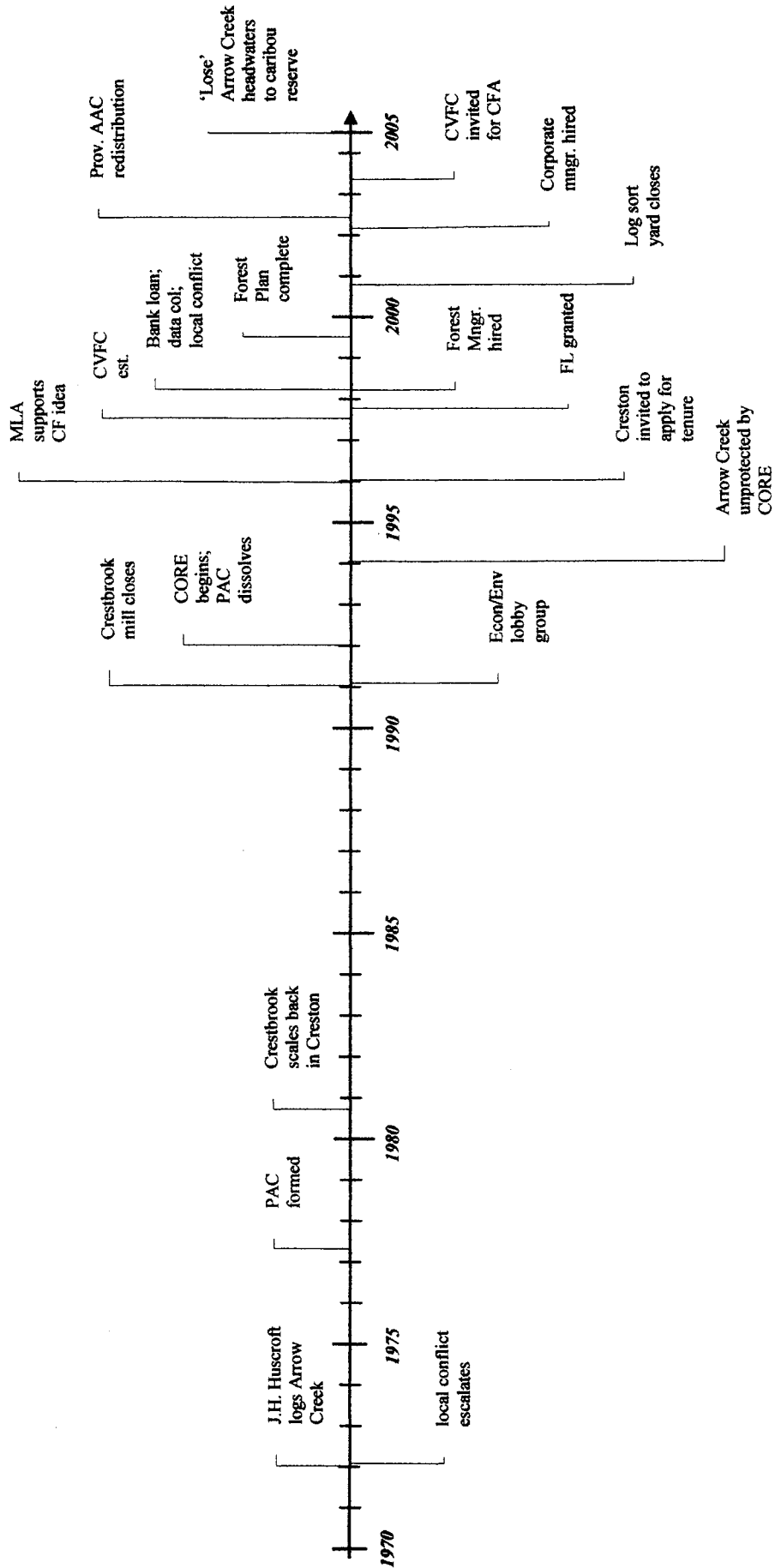
Coincidently, the local forester selected as the first PAC chairman would later become the first manager of CVFC.

The PAC committee was dissolved when the CORE process came in during the early 1990s. The province was implementing large-scale forest planning to broadly classify the Crown land base and it included mechanisms for stakeholder involvement. The Kootenay Boundary Land Use Plan was produced, but Creston failed to have Arrow Creek made into a park or taken out of the timber harvesting land base. A key stakeholder, Erickson Improvement District (EID)[1]—the board responsible for operating the water supply system since the 1920s—had strategically refused to participate. In hindsight, this may have been a poor decision.

By 1990, Crestbrook Forest Products had closed their Creston plant and was shipping wood to Cranbrook for processing (BC Stats 2001). In response, residents formed a lobby group to express their concerns over the loss of wood supply and to explore opportunities for wood manufacturing and local economic development. Participants were both environmentally and economically minded but had a common vision insofar as they wanted to see increased forest-derived benefits go to their community. Continued lobbying attracted the interest of government. When a timber review found a surplus of unallocated timber, local concern persuaded government to offer the community tenure in order to control watershed management. By 1996, the local MLA was supporting the idea of a community forest so that the community could work towards resolving local conflict.

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[1] As defined by the BC Ministry of Community Services (BCMCS) (2006): "Improvement districts are incorporated public bodies managed by elected trustees which are established to operate and administer services such as community water systems and fire departments within a specific geographic area."

In January 1996 the Creston community was invited to apply for the licence. The local sawmills went to the municipality with an offer to manage the licensed area in return for a payment of about $5/m³ to the Town. However, residents did not want an industrial forest operating behind a façade of community control, especially after decades of conflict and public involvement in forest management. Primary water users also expressed concern because they knew that Arrow Creek would be part of the assigned operating area. The residents' lobby group approached several other community groups with the idea of submitting a parallel proposal. Thus, two proposals went in for the government advertised Forest License: one from the Town and two sawmills, and one from the group of other community stakeholders. The Town quickly changed sides to join the other proposal group. There was some discussion of having the mills as partners but the community forest group decided that it presented a conflict of interest; the community was trying to get away from industry control of local forest resources.

On June 1st, 1997 an announcement was made to offer the community group a Forest Licence. The CVFC was also established in June following some debate about organizational structure. The group decided that a society was not appropriate due to concerns that it would be too easy to change the mandate. A corporation with shareholders would have better control over the directorship and, therefore, management of the company. A board of directors was assembled with 5 shareholders: Town of Creston; The Regional District of Central Kootenay; The Lower Kootenay Indian Band; The East Kootenay Environmental Society, and; The Creston Area Economic Development Society. Each shareholder had a director on the board and 5 more directors at-large were selected from the community. The corporation's constitution prohibited

stakeholder dividends. Profits would instead be put into a community fund for local projects. The first board was decidedly "green" due to suspicion in the community and strong protectionist values. A list of goals and objectives reflected this orientation.

A 15 year non-replaceable forest licence was awarded in October 1997 (Smith 2004). The total tenure area was 12800 Ha, and the operating area became Arrow Creek and some lands adjacent to the community, including several domestic watersheds. In all, 93% of the operating area was important to community water supplies.

When the directors set about hiring a forest manager, a number of contractors applied; the former chairman of the PAC was hired in March 1998. CVFC worked to secure a start-up loan for $280 000 from a local bank. This was later increased to $360 000 in order to start logging. The directors developed the structure and policies of the corporation, while the forest manager put together the operational side. For the first few years the forest manager was the sole CVFC employee. By spring of 1998, CVFC was seeking local consultants to undertake forestry reconnaissance assigned by MOF. They had to complete hydrology and soil stability assessments as part of the required Forest Development Plan and Cutting Permit.

Residents were resistant to the idea that a new forest company would be able to log in Arrow Creek. Numerous residents wrote letters to the newspaper and watershed groups were formed: The Erickson Water Users Society, Water Action Group, and EID were all involved and were opposed to logging in the watershed. The mills did not support the community forest either, because they were losing access to local wood and felt they had not been supported by the community.

Before the Forest Plan was completed in September 1999, CVFC held pubic meetings to hear about community concerns and ideas. The central theme was to prohibit logging in Arrow Creek. Discussions turned to the fact that preservation had already failed and that not logging in Arrow Creek was not a reasonable option given CVFC's operating area. The CVFC confirmed residents' concerns and challenged them to monitor CVFC operations closely. CVFC told residents not to trust them until they had proven themselves and delivered on their very green goals and objectives.

CVFC wanted to avoid Arrow Creek until they had demonstrated sound partial cutting practices and earned community trust; however, the reality of operational constraints set in immediately. Reconnaissance found some stands of lodgepole pine that had been badly damaged during the winter of 1996-1997. They planned to log the damaged stands to salvage the timber, and obtained a cutting permit that included one cutblock in Arrow Creek. Partial cutting techniques were used throughout even though the MOF urged them to clearcut the stand. CVFC knew that clearcutting even winter damaged top-broken pine in the contentious watershed would harm the credibility of the community forest organization.

Reconnaissance also revealed the legacy of industrial harvesting. Arrow Creek was really the only area that had decent standing timber, which was no surprise as it had long been protected. Much of the operating area had already been heavily cutover by Wyndell Box and other small licensees. There had also been some major fires. Timber stocks were limited.

For the next few years CVFC concentrated on doing partial cutting mainly outside of Arrow Creek to build community trust. By 2002 several hundred hectares had been

harvested using a variety of partial cutting systems. The CVFC took their critics into the woods to show them the practical results of the corporation's green goals and objectives. CVFC was slowly building community trust. Two more cutblocks were later harvested with the approval of directors who represented former CVFC opponents: Water Action Network, EID, and Erickson Water Users Society.

Nonetheless, the CVFC struggled financially. They had started a log sort yard which soon proved too costly. Excessive stumpage rates, access to markets, and low log prices further minimized potential profits. CVFC hired SFC in 2002 to develop an ecosystem-based plan and maps for future management (Silva Forest Foundation 2004), and addressed fire interface responsibilities. These tasks supported the goals and objectives promised to the community, but also added costs that were not recognized by the stumpage appraisal system. A corporate manager with business and forestry experience had to be hired in February 2003 to redress the well-intentioned yet poorly managed corporation.

With the end date of their Forest Licence on the horizon (October 1, 2012) CVFC has been working to convert their existing tenure to a CFA with an expanded operating area. When the Forest Revitalization Plan was introduced in March 2003, CVFC began to build a relationship with Tembec who would be giving up volume for reallocation in the area. CVFC identified 8000 ha that was contiguous to the existing operating area. The goal was to expand the annual harvest from 15 000 m³ to 40 000 m³, but the MOF suggested that 25 000 m³ would be more realistic. In August 2004, the MOF (2004b) invited CVFC to delineate a suitable expansion area should they be awarded a CFA and announced an offer:

Once the CVFC and Ministry of Forests finalize details of the probationary community forest agreement, the non-replaceable forest licence will be surrendered and replaced by the new probationary community forest agreement. (BCMOF 2004b).

The expansion cannot come too soon. In March 2005 the existing CVFC operating area was further reduced by Ministry of Sustainable Resource Management when the headwaters of Arrow Creek were designated as a protected area for red-listed caribou. Though not opposed to the designation, it poses yet another restriction on operations.

Despite some adversity CVFC has adapted and continued with ecosystem-based forestry. Public participation continues through the board of directors, open meetings, and open house meetings. The corporation provides local employment—about 25 people are employed during the winter logging season through logging, transportation, technical assistance, and road construction contracted locally. The local mills retain right of first refusal on CVFC logs. Over $1 million has been paid in stumpage to the province; CVFC contributes about $1.5 million directly into the local economy each year (CVFC 2005). Arrow Creek's water quality and quantity have been maintained—a primary CVFC forest management objective.

4.5.3. Key Challenges to Community Forestry

As in the other cases, the discussions about Creston show that several different factors were influential at different stages as the process unfolded. A summary of the challenges are presented in Table 7 at the end of this case study. The CVFC advanced to a stage of "active management" and continues to implement programs and policies that reflect organizational goals and objectives. This operational stage is characterised by increased

142

stability and efficiency yet is far from perfect as the agency is still embracing and adapting to new management responsibilities.

4.5.4. Stage 1 - Preliminary Research and Investigation

4.5.4.1. Weak Support

Local support for community forestry in Creston was low from the outset. The community had a long history of public involvement in forest management through the PAC and later CORE, but there was not widespread community support:

> ...public support didn't come immediately, I think it was a small innovative group and they had to sell their concept and they had build that trust up over time, it didn't happen instantly. Interviewee 1

The idea for a community forest was not broached to the community until a small group of people had worked out some details and formed partnerships. Primary water users were staunchly opposed to any form of logging in Arrow Creek and the strong preservation movement for caribou habitat and a rare strain of cutthroat trout overshadowed economic wishes, even with the mill shut down. Awareness for the concept was also low as there were only a few municipal models during the 1990s, and the CFPP had not started.

4.5.5. Stage 2 – Proposal Development

4.5.5.1. Weak support

The short duration of the proposal development stage and limited participation directly influenced the level of community awareness and, therefore, support. Having lobbied for decades, the community had obtained an unusually high level of provincial support, which accelerated the community forest movement to an advanced planning stage rather

quickly. The downside to this was that there was little time to build awareness and a common understanding for community forestry locally. Only a small number of Creston residents were involved with shareholder selection and application preparation. Although the core planning group achieved some community involvement through the community stakeholders, there were no opportunities for wider public participation in the form of town hall meetings or surveys. In contrast to the PAC and CORE processes that afforded substantial local input, the community forest proposal development process involved a small number of community representatives over a short period of time. Though partly directed by elected and appointed municipal and regional government representatives, the project advanced without community buy-in.

4.5.5.2. No Financial Resources

> We were hamstrung by having the founding partners only contributing one dollar each. Therefore, we ended up in a negative cash position from day one.
> Interviewee 2

The corporation was set-up before tenure was actually awarded, but CVFC started off with no financial backing from its shareholders. The process also advanced so rapidly that financing was postponed until tenure had been awarded. Early lack of funding snowballed into more serious problems at later stages as CVFC accrued serious debt before generating any revenue.

4.5.6. Stage 3 – Securing Tenure

4.5.6.1. Local Competition for Tenure

There were two groups competing for the same tenure locally. The two local mills were immediately interested in the Forest Licence offered to the Creston community. It would be a way for them to increase their own quotas amidst the regional timber supply

shortage. These mills provided local employment and presented Town council with a management proposal that would minimize municipal obligations. However, the residents did not want to give control to industry knowing that Arrow Creek would be part of the operating area—they had spent decades protesting against industrial logging in the watershed. The community had to organize fairly quickly to put in an application for the tenure. This offended mill managers who perceived community competition as infringing on their long-held informal sphere of influence. Nonetheless, the MOF had to consider more than one application from the "community", both of which would provide some local benefits.

4.5.7. Stage 4 – Initial Development

4.5.7.1. Contentious Area & Degraded Site Conditions

Having attained tenure, CVFC's assigned operating area presented challenges to planning and management. In the interviews participants explained that the operable land base included a number of contentious areas and features that were important to residents:

> ...of course the operating area was Arrow Creek and some additional surrounding lands adjacent to the community, including several rather large domestic watersheds and another small community watershed. So basically 93% of our operating area is either domestic or community watershed. Interviewee 3

> The community should always be in the most controversial areas. It should be in the viewscapes. It should be in the watersheds. It should be in the areas where the community doesn't trust industry to be, and where the community can do the job to satisfy community. That's where it should be. But there's some real valid costs to operating in those areas that the stumpage appraisal system doesn't address at all.... When we got our operating area, I could see that [it included] areas that nobody else wanted 'cause they were either thoroughly trashed, or else, they were so controversial that nobody wanted them. Interviewee 4

CVFC knew the community would be watching their activities very closely. Ecosystem-based forest management was more expensive, but was more acceptable to residents. Much of the area had been previously logged, which placed further limitations on planning. The sensitive nature of the operating area, degraded site conditions, and difficult site characteristics (steep slope) challenged efforts to devise a feasible plan that would not compromise ecosystem-based principles.

4.5.7.2. Low Trust and Weak Support

Building community trust and support was cited as the most significant challenge when tenure was awarded. Awareness for community forestry was very low and the prospect of a new corporation logging Arrow Creek made residents uneasy. As the following interview exchange indicates, ironically, the community forest was initially rejected by residents:

> A: There was a lot of, not just scientism but out and out resistance to it—people writing letters to the paper, watershed groups being formed. A group called the Erickson Water Society, another group called the Water Action Group, and of course the formal group that managed the watershed was the Erickson Improvement District, all of them—almost all of them—opposed in one form or another logging in the watershed.
>
> Q: Even by the community forest?
>
> A: Even by the community forest because it was an unknown entity.
>
> Q: So there wasn't 100% community support for this going in?
>
> A: Oh no, no. Not by any stretch of the imagination.

The CVFC held meetings to gauge public concerns and take suggestions regarding planning and management. There was strong resistance to logging in general:

> It was a very contentious thing to be doing, to be logging in a watershed which represents so much of the wealth of Creston. Interviewee 5

They just didn't want any logging in their watershed. And if you look at our forest development plan, there's stacks of letters saying "don't log in our watershed" ...we had to ignore that because that was not an option. Interviewee 3

The community expressed concern over water siltation, giardia, and impacts on fish and wildlife habitat associated with logging, as well as the potential for increased all-terrain vehicle traffic. To build trust, the CVFC confirmed local concerns and offered a challenge:

> I think this is key. We told people "look, you need to be concerned about this company. We don't have a track record, we don't have any experience, we've got green goals and objectives, but talk is cheap. Don't trust us..." So we just told them the truth: "you can't trust us until we see how you operate". Interviewee 3

Still, residents were sceptical and the forest development plan took almost two years to complete—a delay which did little to help build local support.

4.5.7.3. Weak Provincial Support and Bureaucracy

Though the community was awarded a tenure, Creston participants felt that the CVFC was not supported by the Kootenay Lake District MOF and provincial government:

> You sort of assume that the forest service and government is on your side because this is something starting up brand new, and they're all saying [mockingly] 'this is a great idea. Great concept... ha ha ha'. And you think they're your friends, but they aren't. They're really working behind the scenes to try and destroy you. And whereas you think that you're doing the good thing, they want to get rid of you. Interviewee 4

> I don't think we were very broadly supported by the MOF locally, they for whatever reason they saw us as... I don't know whether they saw it as against [them]... I think it was probably mandated out of Victoria that they saw a need to reduce the conflict in the woods and this one of the ways of doing it, and particularly when you're talking about watersheds. So when policy comes out of Victoria in that regard, if the people in the field... the district managers, they come from an industrial background, and I think that they largely do because they have to work with the large Tembecs and Weyerhaeusers... and it was a new concept to them. So I don't think we were supported by the MOF locally particularly. Interviewee 6

147

There was variation in the level of commitment shown by representatives of the provincial government, especially from the MOF bureaucracy. Some related this to the culture of the local District office and perceived overriding industry-government associations. But this culture can be seen at work in the other cases too.

Participants pointed out that they received little technical support from the MOF in preparing the first cutting permit, which contributed to unusually high stumpage rates and subsequent debt. Admittedly, inexperience and idealistic ecosystem-based goals were partly to blame; however, participants were disappointed that the MOF did not show the courtesy to advise them of their mistakes prior to issuing the cutting permit. Representatives from the Kootenay Lake District MOF stated that community forests do not receive special attention and are "handled as any other licensee"—an attitude that may doom what should be an innovative approach. It was also stated that technical assistance and consultation was an added challenge for the District office given the amount of time and "hand-holding" it required. Dealing with a community tenure presented different challenges for the District office, which was used to handling industrial licensees with a small number of familiar companies.

4.5.7.4. Lack of Financial Resources

Starting without money from the shareholders became troubling. Participants explained that field work and planning took almost two years and created a large debt:

> So the first two years of operation they did no harvesting, they had no revenue, no cash flow, and they racked up a big bill. Interviewee 1

> How do you get enough money to do your initial reconnaissance, and then do all the planning and everything that's required before you even cut the first tree down? Interviewee 4

> You needed personnel, so we had to make all those up front expenses before we
> generated any kind of income. All the ground work, the field work, the "how can
> this be done..." That kind of expense put us in the hole from the beginning.
> Interviewee 7

Local banks were willing to back the CVFC because municipal and regional governments

were involved. The debt accumulated during the planning stage continued to burden

CVFC when operations began.

4.5.8. Stage 5 - Active Management

4.5.8.1. Unrealistic Goals and Objectives

CVFC started off with a list of ambitious goals and objectives. Participants described

some of the initial goals and objectives as "lofty", "very green", and "idealistic". While

CVFC was able to deliver on many of the goals and objectives, they did realize the

implications of being a novice organization. For example, the costs of following an

ecosystem-based forestry plan were prohibitive as it was not supported by existing

stumpage policy; a log sort yard was not feasible with an AAC of 15 000m^3; local

markets for certain species of wood were non-existent and some mills would not buy

CVFC logs out of protest. One participant suggested:

> We should have learned how to crawl, before we learned how to walk, before we
> tried running. So we went right into running [laughing] ...fell on our face.
> Interviewee 4

Indeed, CVFC could have started with more modest goals until they had learned the

system better and matured as an organization.

4.5.8.2. Inadequate Financing and Skills

Initial financial challenges and poor management were directly related to

inexperience. CVFC had personnel with ample experience in using different silvicultural

systems to implement difficult and complex landscape level management; however,

people with business experience were also required:

> From my perspective challenges have been the management of the forest
> corporation and making sure we had qualified people to look after all aspects of
> the business. We've had qualified people involved doing things that weren't really
> they're scope and we had to make changes, bringing in more of a business
> manager person rather than a forest manager, because the forest manager was
> getting overwhelmed with the business side of the business, and it wasn't really
> his forte. Interviewee 2

Staffing was limited by the small operating budget. The corporation started out in a debt

position and continued under growing debt due to excessive stumpage rates and an

unprofitable log sort yard. Participants stated that the learning curve was steep and that

significant organizational learning had to occur for the corporation to become efficient

and profitable. For example, CVFC had to learn a great deal about log marketing, the US

scaling system, and manufacturing requirements in order to access export markets for

locally undesirable logs.

4.5.8.3. Unsupportive Existing Provincial Policy: Stumpage

> If you don't play the game the same as the majors do, you're going to get beat up
> badly. Interviewee 3

The unsupportive stumpage appraisal system was identified as the toughest current

challenge. Designed for industry by industry, the system rewarded forestry practices

contrary to ecosystem-based management. For example, road building and regeneration

silviculture are written down against stumpage rates; CVFC's first cutting permit

purposefully minimized road building and maximized partial cutting, which negated road

and regeneration costs. CVFC paid $39.75/m^3 for the first harvest; industry can pay as

low as 25 cents/m^3 in BC (Personal communication: R. Greschner, February 2006). The

stumpage system also weighed heavily against CVFC logging methods because it did not

adequately recognize the higher costs associated with intensively managing for wider forest values, which was needed to work in sensitive and controversial areas. Management practices that supported fire interface, water quality, and fish and wildlife habitat, and aesthetics were also not sufficiently compensated. Participants explained the dilemma:

> Most community forests are going to find if they want to practice forestry that is somewhat different from the norm, is stumpage rates that are calculated on the basis of industrial standards rather than environmental standards for lack of a better word. The type of forestry that we practice is not conducive to reductions in stumpage because we don't build roads, we don't do a lot of work where industrial contractors would get rebates on there stumpage. So the whole stumpage system has been set up for that model, and this new model has come into play and we are not given the benefit of practicing forestry that is more beneficial to the community or more beneficial to the watershed. Interviewee 2

> So you end up in an area where your logging costs can end up $10-$15 higher than in the great outback, but your stumpage ends up 400% higher. You get hit on both sides by the cost. Interviewee 4

> ...the cost allowances weren't for partial cutting and for visuals and that sort of thing, you know, the allowances weren't reflective. So they were paying very high stumpage rates, and so they got themselves into a stumpage problem. Interviewee 1

CVFC staff had to learn how to manipulate the stumpage appraisal system to make it work for small-scale, ecoforestry practices. The MOF provided little guidance. After hiring an industry consultant CVFC stumpage rates decreased.

4.5.8.4. Poor Markets and Little Economy of Scale

Competing in BC's forest sector was challenging for a small corporation. Accessing log markets and low log prices were notable challenges. CVFC gives right of first refusal on logs to the local mills and prefers to sell locally; however, the mills would not buy from them for some time, and when they started they could only use certain species.

Regional and international markets could absorb CVFC logs but transportation costs were high:

> ..for other species, like small diameter fir and larch, there's no local market for it. And for small diameter, and even large diameter grand fir, balsam, hemlock, there's no local market for it. The regional markets, the prices are so low you can't even afford to ship it to them and sell it to them. Interviewee 1

CVFC tried to establish a local market for their logs but soon realized that they did not have the economy of scale to run a log sort yard:

> Like we were really sure that we wanted a log sort yard, where we could sort the wood and not only send it to the highest value user, but make a friendly climate where small entrepreneurs could set up their business and access wood. And that was the concept, and it's still a good concept. The only trouble is we found out we couldn't afford it. Interviewee 4

> It turned out that 15 000 m3 was not big enough... did not have enough volume to handle the kind of overhead you need to run economically a log yard. And so we wound up losing money for a couple years. That darn near put us under... We didn't have the cash on hand to start buying logs and start running higher volume. Interviewee 3

As a small business it was often difficult to wait for markets to improve as the CVFC needed steady revenues to maintain day to day operations. There were also practical management constraints that sometimes required cutting when markets were poor or when stumpage rates were high (e.g. cutting before pests invade, or minimum AAC requirements). Conversely, vertically integrated mills could take a loss on log sales and compensate with manufacturing revenues. CVFC depends solely on log sales. A lack of diversity in revenues contributed to low economic resilience.

4.5.8.5. Maintaining Local Support

CVFC struggled to build trust with the community after operations began. Residents were still critical of logging in Arrow Creek. CVFC had to demonstrate that their

forestry practices would ensure the other values that were as important, if not more

important, than timber extraction:

> And that has been the major goal since the inception of the community forest, to demonstrate to the community that we can do this, and do it properly, and this being logging—management of our watersheds. I think we have succeeded to a great extent, we have fewer public outbursts, but our communities are watching and are concerned. Interviewee 7

Poor business management had its costs. Some residents were critical of the CVFC and

considered it a liability to the community. There continued to be a lack of awareness in

the community for the benefits of ecologically sensitive forestry. Participants agreed that

being unable to present tangible economic benefits to the community undermined

support. This participant stated that residents focussed on the challenges and did not

recognize the full scope of benefits that it did provide:

> We got a black eye from mismanaging the log sort yard. We were selling logs across the line, doing it legally but at the same time people saw that as: 'no, you wanted a community forest corporation and you got it. You've got a licence to log, you should be hauling those logs to the local mills so my neighbour can work, he works at the mill.' Or 'I work at the mill [and] you're shipping that milling work across the line'. When in fact we were somewhat forced to do that because the mills wouldn't buy from us, they wouldn't take white pine for example, so we had to find a place. Interviewee 6

It was not that there was no supporting industry locally—rather there was no industry

support. The MOF confirmed that other licensees had "complained" about CVFC's

conservative harvesting, and that the harvestable timber was not being fully exploited.

4.5.8.6 Weak First Nations Support, Personality Conflict, and Parallel Policy Processes

Maintaining First Nations support was commonly cited as a key challenge. Relations

were admittedly weak due to past personal conflict between individuals from the non-

aboriginal and First Nations communities:

The situation with the First Nations peoples here was precipitated largely by personal anger with one of our directors. And we've been struggling with that... But there became a sign of vendetta that arose, which has made any kind of reproach more difficult. Interviewee 5

So there was hard feelings... the issues that we have with the local natives largely stems over individual incidences. Interviewee 6

Although a Lower Kootenay Band representative had not recently sat at a board meeting, they had not formally withdrawn as a shareholder. The Band continues to review all CVFC planning and management documents and provides feedback:

There is, in my opinion, significant involvement; however, are they sitting at the table presently? No. Have they said that they consider that maybe their participation could jeopardize some of their dreams and aspirations? Yes they have. I never received anything formally saying 'we're going to withdraw' but there has been that kind of talk. Interviewee 7

Band governance, land claim negotiations, and the 20% provincial AAC redistribution represent parallel processes that create competing priorities and divergent interests that limit First Nations participation. Building a stronger rapport with the Lower Kootenay Band is paramount to obtaining a CFA.

4.5.8.7. Small Operating Area and Local Competition for Cut/Tenure

To have a postage stamp community forest like we have is just a constant struggle. You need to have a volume that gives you an economy of scale that gives you overhead costs that are reasonable. Right now we're suffering, like overhead costs are too high... Don't get involved in postage stamp sized community forests, you're gonna be behind the 8-ball right from the get go. Interviewee 3

CVFC's small operating area placed logistical constraints on forest management. The protected landscape network prepared by SFC, caribou reserve, culturally sensitive areas, and generally poor site conditions due to previous logging and fire significantly reduced CVFC's operable land base and, therefore, timber supply. This was a challenge from the standpoint that CVFC did not want to have to log in sensitive areas or use different

practices that might compromise ecosystem-based principles. There was consensus among participants that CVFC needed an expanded operating area and increased AAC or they were going to run out of wood:

> Right now our most significant challenge is that we have no future. The only area where we really do have any volume of timber is this upper part of Arrow Creek Interviewee 4

> That's right on the horizon that we're going to run out of wood to cut. At least to stay viable, you need x amount of wood in the AAC, and we're going to run out of the AAC. Interviewee 5

> If we don't get any more land, ya we're going to be in trouble in a few years. Interviewee 6

Moreover, CVFC is in the precarious position of competing with one of their shareholders for forest land. The 20% AAC redistribution and land claims have the Lower Kootenay Band in competition for lands in the Creston area. The Band expressed concerns with some of the areas that CVFC and Tembec had discussed for reallocation to CVFC when a CFA was granted. Add to this challenge competition with the local sawmills and BC Timber Sales and it appears that expansions of the current operating area will fall short of CVFC desires. Herein lies some problems with having a community forest under a relatively small, volume-based tenure of limited duration.

4.5.8.8. Timber Profiles, Forest Health, and Climate Change

Poor timber profiles and forest health did not afford a good supply of merchantable timber. The operating area had been previously cut-over so that much of the remaining timber was of low quality, poor variety, or immature. Some of the most valuable stands were located in contentious areas and so were not eligible for harvest by CVFC standards. Snow and beetle damaged wood was salvaged to try and improve forest health irrespective of current markets for particular species. Moreover, interviewees suggested

155

that forest health challenges were caused by dry conditions linked to climate change; repeated drought conditions stressed the trees making them more susceptible to beetle and fire disturbances. Fire interface responsibilities increased operating costs. All of these challenges had negative implications for forest planning and management and timber supplies.

4.5.8.9. Weak Provincial Support

> The lobbying *never* stops. Interviewee 7

Community stakeholders expressed concern for the low level of provincial support for community forests in general. Participants said that their concerns for the operating area and new tenure were slow to be heard. It was difficult to get the attention of provincial representatives who had the authority to influence policy for positive change:

> ...we have to be able to cajole the politicians and the ministers and the bureaucrats to see it in our light that there is some economic benefit to the province, to allow us to have situations where the stumpage may be calculated on the basis of these other benefits, and we haven't been able to do so. Interviewee 2

Several people discussed the flood of community forest offers prior to the 2005 provincial elections, and questioned political will. They were doubtful that rhetoric would be backed by action:

> They came in and did a photo-op and everone's standing around smiling and shaking hands. It didn't mean a thing. Interviewee 4

> ...about a year ago the government sent us a formal invitation to apply for a probationary community forest licence, and nothing's really become of it. The government began to throw things about just before the election, and although we've had people assiduously working, nothing has really moved the bureaucratic mire. Interviewee 5

4.5.8.10. Resistance from Industrial Forestry Paradigm

When CVFC initially presented their stumpage problems to their MLA, he fully

agreed that the policy needed to be changed but replied: "you're not the one the [Forest]

Minister has lunch with" (Interviewee 3). The community organization had little chance

of influencing government and forest industry elites. Participants stated that they met

with resistance from the old guard of industry, government, and pro-industry residents.

Resistance was attributed to the novelty of community forests in BC, environmental

stereotypes of community forestry and its supporters, traditional scientific forestry

training, and collusion. The following selection of comments highlights some of the

central themes:

> They'd sooner see community forestry fail really. There's a huge bunch of people
> in the forest service and government that don't want community forestry, because
> a lot of those people are really friends of the major industry, and major industry
> loves it the way they've had it for the last while where they have exclusive rights
> to the public domain for free. I mean, that's like being given the keys to the bank
> eh. Interviewee 4

> ...there is still a few signs around in this valley, they'll say, you know, "this
> family supported by the logging industry." So any movement to reduce the
> amount of trees they can harvest in the area might detrimentally affect the major
> bread earner working in the woods.... Another subtle factor is that the people in
> power currently, be it the forest managers in the Tembecs or Weyerhaeusers, or
> people behind the desks in the MOF level... most of them are old school still...
> from my perspective at least and come from an education and industry
> background where clearcuts was what everybody did. Interviewee 6

> ...volume isn't necessarily where it's at. You've got to be able to drop some of
> those paradigms. And foresters are notorious at not being able to think outside
> the box.... Foresters will mouth very sort of holistic statements, but seem to
> always default to the volume. They *always* default to the volume. It's this
> paradigm that they're built on, their foundation, and while they may espouse
> visuals, or caribou, or water, they can't drop this paradigm of volume.
> Interviewee 3

4.5.9. Motivations for Community Forestry

4.5.9.1. Local Control

Before community forestry was a known option, Creston residents were motivated to

protect their drinking water supply and the local environment. They also had concerns

about forestry-related economic development. Most negative environmental and

economic influences were seen to have originated outside the community, so a

preservation movement began to simply stop outside intrusions. Public involvement

processes increased active involvement in forest management, but residents feared the

uncertainty of government decisions that might further jeopardize their environmental

and economic future. Thus, increased decision-making power concerning local resources

was the primary motivation for pursuing a community forest:

> ...preservation wasn't going to work, so the community forest launched out in an
> era and a philosophy of being in control. Being in control was seen as better than
> being reactive to industrial or government agency plans. And so, this community
> forest started out very, very much with that idea in mind. If somebody's going to
> log it, it's darn well going to be us because we want to be in control.
> Interviewee 3

> First of all, a number of us really wanted a community forest. Secondly, the
> greater part of the areas that were being allocated, not as a permanent thing, but
> over 15 year period, were in our watershed, which is in fact our most valuable
> asset. And we thought that it would be better for the community to control that
> logging than for some other enterprise that was based elsewhere. Interviewee 5

> I don't think we're after making buckets of money. The goals was to...
> biodiversity, protect the water source, create local employment, and have some
> control over that as opposed to Tembec's or somebody else's operating area,
> cause all those companies come out of Cranbrook... Interviewee 6

Once CVFC had control of the watershed they came to the realization that

preservation was not an option in Arrow Creek due to the close association of the

community and the watershed. The movement changed in philosophy from preservation

to what was referred to as "intentional management", an approach that exercised a high

level of control and human-forest interaction. Ultimately, desires for increased political

control over local resources and preservation led to intensive management practices and

purposeful access designed to mitigate risks to forest health and community wellbeing.

Table 7. Multidimensional View of Challenges to Community Forestry, Creston

		Creston					
		Social Subsystems					**Biophysical Subsystem**
		Political	*Social/Cultural*	*Economic*	*Institutional*	*Res. & Info.*	*Biophysical*
Stage 1	*Local*	Weak support					
Stage 2	*Local*	Weak support/ trust				No funding; all volunteer board.	
Stage 3	*Local*			Competition for tenure with mills			
Stage 4	*Local*	Weak support & trust from residents, water groups, & mills			Contentious operating area	No money from stakeholders. Lack of revenue, debt forming. Limited business experience	Poor site conditions
	Provincial	Unconvincing support from MOF & provincial government			Senior government bureaucracy		
Stage 5	*Local*	Weak FN support; weak resident support; lofty goals & objectives	Personal conflict	Competition for cut; CF has no economy of scale	"Postage stamp" CF/ operating area too small	Debt drawing down profits; poor management/ limited business experience	Weather conditions; timber profiles; forest health i.e. beetles, fire
	Regional			Weak markets			
	Provincial	Stumpage; parallel policy processes i.e. land claims, AAC redistribution; weak gov. & MOF support		Weak markets	Resistance from industrial forestry paradigm		
	International	Softwood Dispute					Climate change

159

4.6. Summary and Conclusions

This chapter presented and discussed the case study results of four community forest initiatives: Denman Island, Malcolm Island, Cortes Island, and Creston. The community context, community forest history, main implementation challenges, and community motivations were presented for each case. The case studies examined the chronologies of events and diverse networks of actors involved in community forest implementation.

Local actors were shown to have a significant role in the instigation and development of community forest policy, beyond that of a simple government lobbying role. The analysis revealed that informal, non-hierarchical, and "entwined networks" (Wittrock et al 1982: 133) of actors and organizations were responsible for defining, forming, and implementing community forest policy in BC. This may be especially true for community forestry due to multiple stakeholder involvement. Reconciliation of public, private, non-government, and government interests were instrumental in the evolution of the community forest concept.

All communities appeared to be fighting an uphill battle. The above case studies showed that challenges evolved as the process unfolded. Only one of the four communities actually put community forestry into practice, which, in fact, introduced a variety of additional challenges. While the motivations for community forestry were basically the same in each community, environmental and economic values were emphasized to varying degrees according to local contexts. Motivations also evolved as community awareness and coordination increased through information gathering and planning processes. Development pressure emerged as a strong undercurrent for change.

5. CONCLUSION

5.1. Summary

Ideally, a community-based approach to forest management affords the opportunity to assert local values, provide local benefits, and manage resources differently than established top-down approaches. Yet community forest initiatives in BC reveal a range of constraints. This research used a multiple case study design to investigate the motivations for and challenges to implementing community forests in BC. Observations were drawn from four community forest initiatives (Denman Island, Malcolm Island, Cortes Island, and Creston) in various stages of development to consider implementation as an ongoing and dynamic process. Based on a synthesis of the CBNRM and implementation literature, the analysis used a systems approach to identify challenges at multiple spatial and temporal scales to examine the complexity of cross-scale interactions. The case studies showed that several previously identified challenges from the literature were associated with community forest implementation. Challenges originated at scales ranging from local to international and occurred at various points throughout the implementation process. This study outlines a sequence of process stages and associated challenges that are critical to developing successful community forests.

5.2. Critical Challenges to Community Forestry

This study illuminates the complex web of interrelated factors that influence evolving community forest initiatives. One must be aware that every community is not exactly the same; local conditions do vary. For example, forest conditions, community values, economic needs, demographics, capacity, and culture vary across local settings. The systems framework employed here underscores this point by highlighting the fact that

161

endogenous influences (e.g. support and awareness for community forestry; social relations; forest conditions) and exogenous influences (e.g. provincial forest policy; governments; market conditions) change through time and space. The results also confirm that while some challenges are unique and context specific, common challenges are observable for the first three phases of the process (table 8). This suggests that there are common stages with common challenges, referred to hereafter as **critical challenges**. Critical challenges are identified by two or more replications between cases[2] (Yin 2003). While replication cannot be claimed for stages four and five, the Creston case provides some later stage challenges for consideration.

Though there appears to be a common pattern of stages and challenges, the evolution of individual community forest initiatives is highly sensitive to case specific conditions. In particular, the duration of each stage varied across cases. Some communities proceeded quickly to later stages for strategic (Denman Island) and/or practical reasons (Creston). Other communities (Cortes Island) spent a long time gathering support, generating consensus, and developing plans and proposals due to the timing and unpredictability of influential events.

It is important to recognize that none of the communities in this study were originally involved in the provincial CFA program and so the evolutionary model outlined herein may change overtime in relation to changes in provincial community forest policy. To explain, prior to the introduction of the formal provincial CFA application process, communities interested in community forestry spent a great deal of time preparing and fostering local projects before proceeding to tenure negotiations. Conversely, it appears that the province has offered CFAs to some communities who do not yet understand the

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[2] Where applicable, the number of cross-case replications is indicated in brackets in Table 8.

Table 8. A Systems View of Critical Challenges to Community Forests in BC

		Social Subsystems					Biophysical Subsystem
		Political	*Soc/Cult*	*Economic*	*Institutional*	*Res. & Info.*	*Biophysical*
Stage 1	*Local*	Low Awareness & Support (4)					
Stage 2	*Local*	Low support (4); Difficulty Reaching Consensus (2)				Lack of Human & Physical Resources: Lack of skilled people (3), Volunteers (3) & funding (2)	Poor Forest Health (2); Poor Timber Profiles (2)
Stage 3	*Local*	Low First Nations support (2)		Competition for tenures & land (2)			Poor Timber Profiles (2)
Stage 3	*Provincial*	Low Provincial Support (2)		Competition for land (2)	Resistance from Industrial/Scientific Forestry Paradigm (3)		
Stage 4	*Local*	Low Support				Lack of Funding	
Stage 4	*Provincial*	Low Government & MOF Support					
Stage 5	*Local*					Poor Business Skills	
Stage 5	*Provincial*	Unsupportive Stumpage Appraisal System; Parallel Policy Processes					

community forest concept or indeed the history of its development in BC. While some communities with CFA invitations might initially forego or hastily pass through essential developmental stages to enter the process with tenure, they may not have reached the level of awareness, organization, and commitment needed to achieve success. The support and proposal stages are of vital importance to new community forest initiatives; they enable residents to interact and provide an opportunity for resolving differences and collective learning, which together can improve community cohesiveness and

organization. All successful community forests will have to work through these formative stages at some point during their development. Certainly, there are specific provincial application requirements for demonstrating community support and producing business and management plans; however, generic surveys and applications produced by professional consultants are no substitute for the difficult, yet often fruitful, local development processes driven by grassroots initiative that lead to well-developed community forest organizations.

The following section focuses on the above mentioned critical challenges to draw conclusions and offer suggestions for future academic and applied research on community forest implementation. The final section provides lessons and general recommendations for community forest organizations.

5.2.1. Low Local Support and Awareness

Garnering and maintaining local support is a persistent challenge. As is apparent from these case studies, communities are seldom homogenous. There is usually a small group of community forest proponents, a small group of opponents, and then a large group of passive potential supporters/detractors who can be persuaded, but whose support shifts over time. Demonstrating forward progress to the community is essential to maintaining wider support but is very difficult given the long proposal process, slow government application process, and limitations of volunteer power and capabilities.

Of course, local support for community forestry presupposes awareness of the concept. Here we see that community support tends to increase as residents learn more about community forestry. Community orchestrated surveys are often used to gauge local public support and awareness; however, further academic research should try to

gauge awareness provincially for community forestry and ecosystem-based management. We know that industry and government represent values that can be very different from those of the public, in spite of public opinion surveys that highlight the importance of non-timber values to Canadians (Carrow 1994; Robinson et al 2001). Increasing awareness of community forestry could mobilize that mass of potential supporters and help to increase overall success.

The BCCFA is contributing to this. Interested communities should support community forestry by supporting other initiatives and community forest associations through BCCFA membership, in order to strengthen community networks, resources, and the collective voice of community forestry. A prime example might be the need for the MICFC to join BCCFA to bolster their lobbying efforts.

5.2.2. Difficulty Reaching Consensus

It is ironic that community forest initiatives seek to resolve conflict by introducing collaborative management and mechanisms for public involvement in forest management. In some settings, multiple stakeholder involvement can create conflict and complicate management. The diversity that typifies many communities usually necessitates a long period of negotiation and communications to inform those involved and reach agreement on goals and objectives. The process of generating consensus is, therefore, time sensitive. Initiatives that try to move forward before reaching consensus will face further conflict or failure. The case studies revealed a preference for corporate management models in order to streamline decision making—a difficulty with non-profit societies and co-operative models. Results also suggest that communities would benefit from guidance on how to structure decision making processes.

5.2.3. Lack of Human and Physical Resources

Some communities are naturally endowed with ample and diverse human and physical resources. Cortes Island is a good example of what can be achieved by aboriginal and non-aboriginal groups where there is a strong sense of leadership, financial backing, and a well-informed citizenry. Still, it is more likely that communities will have incomplete skill sets at their disposal and will require professional consultation and, ultimately, money. This research found that access to funding, people with forestry and business training, and a strong volunteer network were critical challenges for community forest initiatives.

The FRBC grants once available to resource communities for community forest feasibility studies are no longer. Short of providing funding to community forest organizations, senior government could help to build local capacity through management training and technical support. But the experiences documented here show that the MOF does not presently play a supportive technical role and there is debate within the Forest Service about how much community "hand-holding" should occur. This could indicate a larger cultural obstacle with respect to the Forest Service—a certain resistance to policy innovation, especially when it threatens the long established agency-industrial client relationship. A related point, since MOF resources were scaled back, Creston no longer has a local field office to act as a liaison with the District office. Since 2001, approximately 800 MOF jobs have been cut, over 300 of which were in compliance and enforcement (Parfitt and Garner 2004). Since the mid 1990s, significant cuts have occurred in research (45%), range management (42%), and scaling (38%). In this way, local resource constraints are related to provincial resource constraints.

At the community level, partnerships provide opportunities to share information, expertise and technical staff and, ultimately, the financial burden associated with local resource and environmental management. Where appropriate, community forest organizations should explore the potential for partnerships with BC Improvement Districts to improve integration in forest/watershed management and service delivery. As in Creston, different local agencies have overlapping, even complementary roles with respect to water management responsibilities. Given the recent increase in attention given to water management in Canada and the widespread geographic distribution of Improvement Districts in BC (more than 85% are located in unincorporated areas within a regional district), there appears to be potential for mutual benefit. Improvement Districts could be important stakeholders in both rural and urban communities where forestry and water quality/quantity are significant issues.

Resource challenges cannot be solved without recognizing that community forest implementation involves significant individual and institutional learning. While the CBNRM literature deals quite extensively with this (e.g. Davidson-Hunt and Berkes 2003), scholars of Canadian community forest research have given it little attention to date. The case studies showed that community forest organizations can be very adaptive to deal with dynamic change in the face of uncertainty. However, there is a need to study institutional learning in these organizations as a prerequisite to building adaptive capacity and improving their success.

5.2.4. Poor Forest Health and Timber Profiles

Poor forest health and timber profiles are ecological challenges with negative implications for planning and operational viability. As a business, a community forest

requires a sufficient supply of good quality timber. The ecosystem-based management principles employed by many community forest organizations are suited to restore forest health but this will require initial sacrifice to do so. Due to depleted timber stocks and concerns for forest health, communities often plan to protect much of the best standing timber and productive sites. In the meantime community forest organizations need to make money. There is a need for community forest research that explores the potential for non-timber forest products to alleviate timber dependence and diversify local economies. First Nations in particular should have an active role in this. While community forest supporters proclaim the intention to diversify forest utilization and products, practical examples are few (e.g. Harrop-Proctor). There is a need for research on the potential of non-timber forest products; it is an area that is often talked about but rarely realized.

Fire interface and pest management represent major opportunities for "front line" communities with potential to increase forest health and, in turn, the quality and quantity of timber available for future harvest. Local community forest representatives envision a role for community forests in fire interface and have expressed concern for MOF fire readiness and response capabilities given the recent cutbacks to finances and staffing. In 2003, the seriousness of BC fire events gained national attention as fires burned residences in Kelowna. Following that wildfire season, CVFC initiated fire interface measures when fires came dangerously close to the headwaters of Arrow Creek. Given the distribution of BC's rural communities and their close association to forests, many communities are at risk. Where sufficient capacity exists, community forest agencies are well positioned to play a pivotal role in fire interface as frontline forest management

agencies working in conjunction with MOF. But the role of communities and level of responsibility in this regard has yet to be defined. Lessons from past resource management experience show us that crisis is too often the incentive for change (Clapp 1998). Thus, the province and communities should not wait for another disaster to explore the possibility of expanding the formal role of community forests in areas like fire interface and pest management.

5.2.5. Weak Senior Government Support

The communities under study were pursuing control over local forest resources long before they could be considered outliers of any provincial process. Each was part of the larger movement for local control. In many ways community forest policy originated at the grassroots level and provincial government support has been slow to develop. Now that provincial support has increased and a formally controlled, linear application process is in place, some communities face the paradox of not fitting into the provincial framework. The province has assumed a gatekeeper role, rather than that of guide or facilitator. Senior government remains hesitant to devolve power over resources to local organizations and settle into a support role; though ironically, they are pursuing policies that would see large firms self-regulate/self-monitor their use of public forest lands. True government support is accompanied by vital resources and authority.

By imposing top-down control, it can be argued that increased provincial involvement has added more barriers than it has removed. As one MOF District Manager pointed out, the application requirements for communities exceed what is required of many other tenure holders. Communities must satisfy provincial application requirements, including detailed plans and studies that are expensive in terms of time and money, which can

exacerbate future operational problems. While MOF representatives maintain that community forests are "just like any other tenure" there is clearly a double standard for industry and communities. The MOF remains an old-line hierarchical institution characterised by power differentials between district, regional, and central offices that can impede community efforts. With the 10 year anniversary of the CFPP fast approaching, future efforts should review the provincial process for awarding community forests, including the requirements placed on communities and the network of actors involved.

5.2.6. Resistance from Industrial/Scientific Forestry Paradigm

The question of government support is intertwined with paradigmatic challenges. Community forestry has been developed locally for different reasons and on different foundations than was sustained yield forestry. Small-scale, multi-valued, ecosystem-based forest management appears to be in direct opposition to the values and practices of senior government, professional (technical) forestry schools, and industry that have long controlled forestry in BC. Presently, neither realm is really satisfied. There are conflicting views of community forestry and its intended management role. As seen here, communities perceive community forests as a grassroots, conservation-oriented, and "green" approach to local economic development, while government intends it to be a simple economic development opportunity that can be administered like any other tenure.

It can be expected that government will continue to move community forest management towards a model that suits its own needs. The problem in BC is that public policy is subject to wild shifts in ideology (Bullock and Hanna in review). The current provincial framework pulls community forestry towards an industrial model. Indeed,

many community forests begin with a strong ecological orientation and then become increasingly aware of forest economics with time. Some government and community representatives attribute this to a reality check that comes with basic business management priorities. In other ways, it reflects a compromise of values as community forests must try to fit into an industrial framework of ill-suited policy designed by professionals from an industrial forestry tradition—a tradition that may no longer be capable of managing complex ecological, social, or economic systems in a rapidly changing and increasingly conflictual forestry world.

There is a rising preference for municipal and regional involvement and corporate management models in community forest management. There are also examples of industrial community forests (Beckley 1998). These developments stop short of ecosystem-based forest management in terms of democratic and ecological goals. Community forests on this path run the risk of becoming local government resource management agencies rather than grassroots community organizations. This could simply transfer bureaucratic problems from the provincial to local level. Community forest advocates too must remember that not all communities share the same values and so there can be variation in how community forests evolve. While a common criticism of CBNRM and community forests is that they often do not meet expectations, it may be that researchers do not understand the local nuances of community values as well as they would like to believe.

5.2.7. Competition and Parallel Policy Processes

Competition for forest land and tenures is great due to land claims and the 20 percent timber reallocation in BC. This is especially true when there are First Nations locally

who could be potential stakeholders in a community forest, but might also be looking to do something on their own as part of an eventual land claim. There may be other pressing commitments and issues that First Nations communities choose to address ahead of involvement in a community forest. The rising influence and variability of First Nations as important players in BC forest management could prove to be a wild card for non-aboriginal communities that seek forest tenures.

The logistics of timber reallocation will figure into MOF calculations and, therefore, community forest opportunities. Regional AAC allotments affect redistribution, so if there are a number of First Nations and other communities with interest in a particular region, it could be much more difficult to get a community forest. Competition for private land is a background force that represents a critical challenge, especially for communities where development pressure and population growth are a concern. Private competition can diminish the land base available for community forestry in places where finite land resources exist within and around communities.

5.2.8. Unsupportive Stumpage Appraisal System

Community forests that practice ecosystem-based management in their operations have faced very high stumpage fees (highest in BC at $40 per m³) simply because they choose alternative management practices (e.g. partial cutting; less road building) that do not figure into the provincial stumpage calculation framework. In response to stumpage and other challenges CVFC and CES worked with other community forest organizations in forming the BCCFA in 2002. The group has tried to change the stumpage appraisal system by developing alternative stumpage ideas and lobbying government. A main goal is to design an appraisal system that will account for forestry practices that consider

172

wider forest values and provide beneficial services (e.g. water and soils, viewscapes and aesthetics, wildlife habitat protection, fire interface). BCCFA prepared The Stumpage Alternative Paper in 2005 and presented it to the Forest Minister. The province and BCCFA are now working together to develop an alternative pricing system designed for alternative harvesters who manage for multiple forest values. This should help reduce community forest stumpage rates to more manageable levels and better reflect the services and values represented in alternative management practices.

5.3. Community Motivations for Community Forestry

This research echoes current CBNRM and community forest discourse with respect to community motivations for local control over local resources for local benefits. This remains the mantra of community forestry in BC. However, it was found that local development pressure was also an impetus for increased local control. This motivation in itself presents a challenge for communities seeking to control land use decision making over areas beyond their legal jurisdiction. The Denman Island and Cortes Island cases point to a need for proactive management regulations/policies for private forest land in BC. Creating strong sustainable forestry bylaws may be a sufficient alternative for communities that do not necessarily want to pursue community forestry for its fullest economic potential or where economic viability is questionable. Communities pursuing community forestry must be sure of their intentions and they must be sure that community forestry is really the appropriate route to achieving local goals. The MOF considers community forestry as one way to stimulate local economies and mitigate conflict. Communities with motivations that do not fit these intentions are less likely to succeed under the current provincial framework.

In these cases community forestry began as a response to local environmental and economic problems related to forest management. Each community was reacting to what were believed to be negative changes, introduced by "outside" forces. However, the driving forces varied. The main difference was between communities where forests were important to lifestyle and tourism (Denman Island, Cortes Island) and where forests were important from the standpoint of the traditional forest community-industry compact (Malcolm Island and Creston). Nonetheless, community control was the primary motivation whether it was to have increased control over residential, commercial, or industrial development in terms of local forest resources and economies. As each community sought to implement ecosystem-based forest management principles, they shared common values, though with varying degrees of emphasis. This final point illustrates the diverse values to be represented in forest management at the community level and, indeed, throughout the province.

Above all, these case studies illustrate the transition of the BC forest industry and the evolution of resource community values. Though resource development continues to play a major role in local and provincial economies, the character of resource communities has increasingly changed from hinterland to homeland. The forest-community association is evolving and forest managers face new sets of challenges in managing BC's forests. While community forestry in BC faces important implementation challenges, it is a concept that holds great promise for local economies and new approaches to forest resource management.

5.4. Lessons and General Recommendations for Community Forest Organizations

This section attempts to distil the best lessons learned through the case studies and literature review in order to make specific recommendations for practice—the third and final objective of this study. Given current provincial policy, it appears that the onus is on communities to prove that they are "ready" for involvement in forest management, and can continue as viable local resource management institutions. Thus, the following list provides practical suggestions to community forest organizations for improving success throughout the process:

- Set goals and objectives very early. These may evolve, but a definite starting point is necessary. In doing this, it is very important that residents work to *determine what they want to do, but also why.* In other words, there is a need to determine the true motivations driving pursuit of community forestry. It may be that there are other mechanisms to address some of the issues of community concern. Community forestry is not a panacea.

- Local movements typically start with a core group of supporters or an organizing committee. In the above cases each community forest organization was born of some other forestry committee. It is essential to *formalize the community forest group early on.* Irrespective of the model selected, developing some semblance of formal governance early on gives everyone something to rally around. It is an inward and outward sign of progress.

- First Nations and non-aboriginal groups should *foster good working relations* with one another even if they do not plan to work together. Having explicit knowledge that other community groups support your efforts rather than oppose them can

facilitate senior government cooperation. Document the resolution of all conflicts, no matter how small they might seem, and be able to demonstrate this to senior governments.

- The Creston example illustrates that "the lobbying never stops". *Communicate with politicians and bureaucrats at all levels of government.* You may not win their support right away, but experience shows that everyone's thinking—including that of politicians and industry representatives—can evolve over time. Be persistent.

- *Develop creative ways of engaging the public* to avoid unproductive yelling matches at the local town hall. It is important to discuss and to try and work through all conflicts within the community; however, there is a need to maximize the productivity of volunteer energy. Experiment with informal open house meetings where residents can meet community forest representatives. Use posters, flyers, and short newspaper articles or advertisements to inform the public of all community forest news. These kinds of information display and distribution techniques can be used by community forest initiatives at all stages of development. It is equally as important for novice and established organizations to maintain linkages with the community. Established organizations must not become complacent about their image in the community.

- *Explore partnership opportunities* with public and private institutions. Resource and information needs can sometimes be addressed through exchange with partner organizations. Prioritize resource and information needs early on and work with partner organizations and associations (BCCFA) to identify common information needs and facilitate data sharing. Seek university research support to develop

information. Service learning and other community-based research approaches are a good way to share expertise, technology, office space, and research funding.

- *Engage local school groups.* Education partnerships with local schools ensure that future generations will have awareness for the community forest organization and its role in the community and increase local support. It also provides training and learning for those who will form the local work force of the future.

- The BCCFA is developing a webpage where community forest organizations can post their information needs; use this website and *consider developing an independent website* as a communication tool early on.

- Community forest groups often work with hand drawn maps and illustrations as a way to create or customize existing information. Information development is a significant part of the planning process that can facilitate implementation. Where possible, *communities should try to develop their own information on their forests and community, and develop quality maps.* The case studies show that the process of developing maps and plans, albeit challenging, can be empowering. Possessing specialized information on the locale improves the organization's strategic negotiation position with government and industry, and adds legitimacy to the initiative by bolstering resources. It also provides a universal tool and data display medium to share with others, especially residents, and can be a source of pride and symbol of progress. The process of developing maps can advance sound planning by further defining goals and objectives through discussion. But clear priorities for information needs are essential; refine existing data where possible and maintain a focus on data quality and efficiency in collection.

- *Seek professional consultation.* RPFs, lawyers, planners, accountants, and consultants will play an important role in all successful community forests. In most cases financial resources will dictate how soon these individuals will be brought into the process. In some cases local volunteers possess necessary expertise and accreditation, while in other cases community organizations will have to fundraise or secure loans. Professional consultation will add a degree of legitimacy to local initiatives and provide someone who "speaks the same language" as government and industry representatives. If possible, hire the same consultants that work with industry and government forestry agencies; "learn how to play the game".

- *Foster individual and group learning* to build adaptive capacity in your organization and wider community. Organizations that can adjust to shifting demands and challenges tend to persist. One way to do this is to report on all projects to share results and provide the opportunity for others to learn from experiences.

- *Continue to innovate* in all areas of community forestry. The analysis showed that entwined networks of local actors are instrumental to forming and refining policy. Just as the stumpage appraisal system was developed by industry for industry, community forest organizations must not sit by and let others develop community forest policy. The BCCFA is presently playing an important role in this effort. Moreover, community forest organizations must further contribute to the evolution of ecoforestry and ecosystem-based planning and management techniques. Theory can also be advanced through ongoing involvement with the BCCFA and partnerships with university researchers.

- *Consider municipal and regional government stakeholder involvement* where appropriate. The growing preference for government involvement in community forests suggests that communities that do not work with local governments might be less successful in attaining community forest tenures. Including government stakeholders could improve success.

- *Always demonstrate professionalism and maintain open communication* with all parties.

The above recommendations are not meant to be a generic master list of success factors for all new community forests initiatives. What works in some communities may fail miserably in others. However, the need to build community awareness as a prerequisite for building local support and the need to demonstrate progress to those within the community and beyond are common threads that link these lessons and community experiences. In this way these community-level recommendations support the greater movement for acceptance of community forestry as a valuable mechanism for community involvement in forest management.

6. APPENDICES

Appendix 1. Interview Questionnaire

Questions

1. How long have you lived in this community?

2. How long have you been involved in the community forest initiative?

3. What is your role in the community forest effort?

4. How did the idea for the community forest come about? Specifically, what led your community to want a community forest.

5. What are the original goals? Have they changed?

6. Can you describe the process of creating the community forest? (who was involved and how, key issues and events, what has happened)

7. What challenges were encountered during the implementation phase of your community forest initiative?

8. Of the challenges you listed, which were most significant?

9. Were some challenges more significant early on and some later on? (temporal)

10. What actions were taken to overcome these challenges, if any?

11. How did these challenges ultimately affect (or not affect) the community forest initiative and its outcomes?

12. a) What options does the community forest organization have now?

    b) Where do you see the community forest in 10 years time?

    c) Where do you see the community forest in 30-40 years time? In other words, what is your long-term vision of the community forest?

13. Overall, what factors do you think are most important to a successful community forest?

14. Do you have any recommendations to improve implementation success and practice?

Appendix 2. Informed Consent Form

WILFRID LAURIER UNIVERSITY – INFORMED CONSENT FORM
(To be provided in advance to potential participants for review before interview)

<u>Project: An Analysis of Community Forest Implementation</u>
Principal Investigator: Ryan C. Bullock
Research Supervisor: Kevin S. Hanna

You are invited to participate in a research study. The purpose of this study is to investigate the community forest implementation process and assess major challenges to initiating such a program. The principal investigator is Ryan C. Bullock, Master's candidate from the Department of Geography and Environmental Studies at Wilfrid Laurier University, working under the supervision of Dr. Kevin S. Hanna, Associate Professor. This research is being undertaken as part of a larger research project entitled: Integration in Resource and Environmental Planning and Management: Concepts, Methods, and Evaluation at Multiple Scales. The research is being funded by the Social Sciences and Humanities Research Council and Ontario Graduate Scholarship.

INFORMATION

The research in question takes a multiple case study approach and involves interviews with government and community forest representatives. Individual interviews will take the form of a conversation and will be guided by a list of questions used to prompt the investigator. You will be asked questions related to your experience with community forestry. Each interview should take approximately one hour to complete. Generally, about five or more participants from four different communities will be interviewed.

With your permission, your interview will be tape recorded and later transcribed to ensure accuracy during data analysis. If you do not wish to be tape recorded, the investigator will instead take handwritten notes during the interview. Also, you may refuse any question(s) that you do not wish to answer.

RISKS

There are no anticipated risks. Full confidentiality will be upheld by protecting your name, identity, affiliation, and any comments made during the interview.

BENEFITS

By contributing to the development of community forest theory and community-based resource management theory, this research will be of benefit to other scholars and researchers in the field of resource and environmental management. More importantly, theoretical development and recommendations for practice will be of benefit to local people and government policy makers involved in managing community resource and environmental programs. This research is specifically designed to be of benefit to rural resource communities that are challenged by economic transition due to the decline of primary industries. The study of community forest policy and operations can help communities to overcome project challenges and improve the overall success rate of community forests, producing local economic, social, and ecological benefits. The researchers welcome comments and questions from any interested parties. Please do not hesitate to contact Ryan C. Bullock or Kevin S. Hanna if you would like more information.

CONFIDENTIALITY

Full confidentiality will be ensured by protecting the names, identities, affiliations, and comments of all participants. As a neutral investigator, no reference of other participants will be made. The focus of each interview will remain on the participant being interviewed. Only the principal investigator and the project advisor will have access to the data, which will be stored in an office at an undisclosed location. All audio tapes and transcripts of interviews will be destroyed upon completion of the research. Also, participants will not be identified by name or affiliation in the final research report or presentations without prior verbal consent from the participant(s) in question.

A manuscript containing the research results will be submitted to the Department of Geography and Environmental Studies, Wilfrid Laurier University as part of the Investigator's MES degree requirements. A manuscript will also be submitted for publication to a scholarly journal upon completion of the research. As well, research results may also be later posted on the project website, yet to be constructed. Quotations from interviews could be used in the research report, in which case all personal identifiers will be stripped to protect participant identities. Participants will be able to vet any quotations before they are used in write-ups or presentations and may also choose to participate without being quoted.

CONTACT

If you have questions at any time about the study or the procedures, you may contact the researcher, Ryan C. Bullock, Department of Geography & Environmental Studies, Wilfrid Laurier University, 75 University Ave. West, Waterloo, ON, N2L 3C5, phone: (519) 880-8811, email: bull2807@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Bill Marr, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, extension 2468.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed. You have the right to omit any question(s)/procedure(s) you choose.

FEEDBACK AND PUBLICATION

A manuscript containing the research results will be submitted for publication to a scholarly journal and to the Department of Geography & Environmental Studies, Wilfrid Laurier University, upon completion of the research. As well, research results may also be used in presentations or later posted on the project website, yet to be constructed. Copies of the final report will be made available to all participants through their respective community forest organization when the project is completed. The current study is set to be completed by April 30, 2006.

CONSENT

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study. Verbal consent has been obtained.

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187

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191

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