

Community Forest Feasibility Study

**for
Haida Gwaii/Queen Charlotte
Islands**

**Prepared for:
The Islands Community Stability Initiative (ICSI)**

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Haida Gwaii/Queen Charlotte Islands Community Forest Feasibility Study

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Acronyms and Abbreviations

AAC	allowable annual cut
BC	British Columbia
BEC	biogeoclimatic ecosystem classification
CF	community forest
CFB	community forest board
CFO	community forest organization
CFT	community forest tenure
CFSP	<i>Community Forest Stewardship Plan</i>
FL	forest licence
FRBC	Forest Renewal BC
ha	hectare
HG/QCI	Haida Gwaii/Queen Charlotte Islands
ICSI	Islands Community Stability Initiative
Island Community	the collection of towns, villages and rural settlements on Haida Gwaii/Queen Charlotte Islands
LTHL	Long Tern Harvest Level
LRMP	Land and Resource Management Planning
m ³	cubic metre
MoF	Ministry of Forests
MOU	Memorandum of Understanding
NSR	Not sufficiently restocked
NTFP	Non-Timber Forest Product
QCI	Queen Charlotte Islands
SMFRA	South Moresby Forest Replacement Account
TFL	tree farm licence
the Islands	the island archipelago of Haida Gwaii/Queen Charlotte Islands
TSA	timber supply area
TSR	timber supply review
VQO	visual quality objective
WL	woodlot licence

1. Introduction

This report presents the results of a study into the feasibility of establishing a community forest on Haida Gwaii/Queen Charlotte Islands. This study was prepared by Robin B. Clark Inc. for the Islands Community Stability Initiative (ICSI). This report is intended to assist ICSI in preparing an application to the Minister of Forests for a community forest licence suitable to the Island Community.

1.1 Terms of Reference

The terms of reference for this study were to:

- consult with local stakeholders on aspects of the community forest;
- research and prepare recommendations regarding appropriate tenure and corporate and management structure for the community forest;
- research and prepare recommendations regarding licence sites, including review and verify cruise data, log grades, value and optimum utilization of fibre, harvesting methods and opportunities for 'green' certification;
- research and prepare recommendations regarding the financial viability and liability of the licensee's forest land base; and,
- research and prepare recommendations regarding business plan options for financing, including optimum local manufacturing (with a log trading strategy), local log yard, enhanced value-added and potential employment impacts.

1.2 Scope and Limitations

This report was prepared based on information gathered in a community consultation process (described below), as well as published reports and documents provided by ICSI, the MoF, and other stakeholders. Given the limited time and budget for this study, sources of data were, for the most part, taken at face value, without verification. Issues with respect to forest resource inventory data weaknesses are identified where appropriate (see for example, Sections 2.1.2 and 2.1.7.2). The authors welcome any comments on errors or omissions.

1.3 The Community Consultation Process

The community consultation process was carried out in two phases, as described below. (A summary of public input is provided in Appendix 3). The consultants were impressed by the level of interest shown and the willingness of the members of the Island Community to take the time to spell out their concerns, priorities and ideas for the community forest. It was clear that there is a tremendous level of support and alignment from all communities, sectors, and interests for the idea of an Islands' community forest.

Phase 1: Interview research in the Island Community: Jan -Feb, 1998

Four of the consulting team members visited the Island Community between Jan 31st and February 7th, 1998. These team members were: Bryan Evans, Len Apedaile, Robin Clark and Gary Robinson. The consultants first met with ICSI, and ICSI members contributed a long list of

community members to interview. The consultants split up to interview as many people as possible. The people who were interviewed suggested other people who should be interviewed and these were added to the consultants' list. The consultants tried to reach people from all the different communities and sectors of the Island Community. Thirty-seven people were interviewed in total. For a list of interviewees, see Appendix 7. The interviews loosely followed a set of questions that was prepared in advance based on the terms of reference for the project.

Phase 2: Workshops and Interviews in the Island Community: March 9-13, 1998

Consultants Len Apedaile and Julia Gardner visited the Island Community again, for a set of consultations that focused on four community workshops. Before the four meetings Len Apedaile also had a meeting with ICSI representatives and Haida Community representatives. Between the workshops more interviews with interested community members were carried out. Copies of a preliminary draft of the community forest feasibility study were circulated and many useful ideas for improvements to the strategy were gathered. Approximately 50 people in total besides the consultants and ICSI staff attended the workshops. A list of participants is in Appendix 7.

The public workshops were advertised in the QCI Observer newspaper in advance, headed: "*Robin B. Clark Inc. and Associates will be presenting their work on the Haida Gwaii / Queen Charlotte Islands Community Forest Study.*" The format of the meetings was a series of presentations on the draft community forest feasibility study by Len Apedaile. Between each presentation there were discussions facilitated by Julia Gardner. The purpose of the meetings, as advertised, was to:

- Review ideas for a preliminary community forest feasibility study and ensure they are consistent with the interests of the community.
- Explore challenges related to the strategy and generate solutions for improving the strategy.
- Seek indication of how the community would like to proceed with a proposal for a community forest pilot.

Although the four meetings were small in terms of participants, much valuable feedback was provided to the consultants and the purpose of the workshops was met.

1.4 Organization of the Report

This report has 7 sections:

- Section 2 summarizes the chronology of events leading up to this study, outlines key forestry issues on the Islands to put this study in context, and provides suggested guiding principles for the establishment of a community forest on the Islands from *The ICSI Consensus* document.
- Section 3 explores the key elements of tenure that should be considered in establishing a community forest, describes the tenure options currently available to the Island Community, and makes recommendations on a tenure option suitable for the Island Community.
- Section 4 outlines a proposed legal and administrative structure for the community forest organization (CFO).
- Section 5 is an assessment of the 8 candidate areas that have been proposed as possible community forest sites. Brief description of the location, biophysical attributes, resource values, forest profile, and opportunities and constraints of each site are provided.

- Section 6 provides a business case analysis of the feasibility of the candidate areas to support a viable community forest operation given assumptions of areas, harvest rates, revenues and costs. Two scenarios are developed consisting of just the east coast candidate areas (Scenario 1) and all the candidate areas (Scenario 2).
- Section 7 outlines a proposed operating model for the community forest, consisting of start-up, transition and fully operational phases. Actions are suggested in each stage.

2. Background

A dialogue on forestry has been on going in the Island Community for many years. Through a number of forums, Islands residents have expressed their aspirations for more meaningful input into land use planning and forest management, greater local control over the rate and allocation of timber harvest, and more local jobs and community stability.

2.1 Context and Chronology

This section provides a brief description of the chronology of events leading up to this feasibility study and some of the key forest issues on the Islands today. These factors are important context for this study and its conclusions.

2.1.1 Queen Charlotte TSA Timber Supply Review

Interest in community forestry on Haida Gwaii/ Queen Charlotte Islands has grown steadily since completion of the timber supply review (TSR) for the TSA in July 1994.¹ The TSR showed that the rate of harvest in the TSA was significantly above the long term harvest level (LTHL), with the prospect that sharp declines in timber harvest will be required in the coming decades.² As a result of the timber supply review, a new AAC for the TSA of 475,000 m³ was announced by the Chief Forester in May, 1996.³

The socio-economic analysis undertaken for the TSR also indicated a major disparity in the distribution of employment and other socio-economic benefits to the Island Community. Only about 12 percent of the TSA annual harvest is processed locally. Less than 3 percent of the combined harvest from TFLs and the TSA is processed on the Islands.⁴

Concerns about the rates and apportionment of timber harvest on the Islands had been mounting for some time but were galvanized by the 1994 TSR. In March 1995, representatives of all community and regional electoral bodies sent a letter to the Chief Forester requesting that the AAC be reduced to the long term harvest level within 3 years or less, and that areas being

¹ BC Ministry of Forests. 1994. *Queen Charlotte TSA Timber Supply Review*.

² The LTHL for the Queen Charlotte TSA was estimated to be 248,000 m³/year, 51.7 % below the AAC of 514,335 m³/year which was in effect at that time. (Ibid. p.16).

³ Pederson, L. 1996. *Queen Charlotte Timber Supply Area Rationale for Allowable Annual Cut (AAC) Determination*. Ministry of Forests. p. 4. The AAC for the TSA was reduced to 475 000 m³ from 514,335 m³, a decline of 7.6%. The new AAC included 75 000 m³ from stands of low-volume cedar not previously included in the timber harvesting land base.

⁴ BC Ministry of Forests. 1994. *Queen Charlotte Timber Supply Area Socio-Economic Analysis*. p. iii.

considered for exclusion from harvesting be removed from contributing to the AAC. In a subsequent letter to the Chief Forester in April 1995, community representatives stated that:

The current allocation of timber cutting rights in the Queen Charlotte Timber Supply Area (TSA) represents a significant threat to the future of our Islands community. The Socio-Economic Analysis prepared for the Timber Supply Review confirms that the return to our communities is unacceptably low. It is our belief that 100% of the TSA should be managed by the communities of these Islands.⁵

2.1.2 TSA Inventory Issues

In response to concerns over the accuracy and completeness of the inventory data used to determine the AAC, a study was done to assess the forest inventory for the Queen Charlotte Timber Supply Area, identify issues and make recommendations.⁶ The evaluation focused on five major issues that were identified by seventy stakeholders consulted for the evaluation. Recommendations arising from this evaluation were to:

- _ undertake terrestrial ecosystem mapping, in combination with economic and physical operability, for the entire TSA;
- _ undertake site index/BEC correlations for the entire TSA;
- _ undertake stem analysis for mature sitka spruce;
- _ begin an LRMP process for the Islands; and,
- _ enhance community involvement in all inventory projects, studies and processes.

The report was circulated to all ICSI board members and several of the recommendations have been acted upon.

2.1.3 The ICSI Consensus Document

In November 1995, the Queen Charlotte Forest District sponsored public information sessions to discuss the timber supply shortages identified in the TSR. In response to these sessions, the Island Community formed the Islands Community Stability Initiative (ICSI) with representation from each of the Islands' communities. The mission of ICSI is to be a:⁷

forum to express the collective will of the Islands people. It is established to address social, economic, and environmental issues resulting from resource extraction, and to participate in designing a future that will support a healthy environment and create a self sustaining Islands economy.

In January 1996, *The ICSI Consensus* document was produced and endorsed by leaders of all seven Islands communities following a community consultation process(See Appendix 1). *The ICSI Consensus* charts a new direction for forestry on the Islands and was supported by all the communities and rural settlements of the Islands. *The ICSI Consensus* states the Island Community's goals and guiding principles for forest management on Haida Gwaii/Queen Charlotte Islands. It outlines the Island Community's consensus around key issues of concern including the determination timber supply and the consideration of non-timber resource values;

⁵ Islands Community Stability Initiative. January 31, 1996. *The ICSI Consensus*. p.2.

⁶ Robin B. Clark Inc., 1996. *Queen Charlotte Timber Supply Area Inventory Issues and Recommendations*.

⁷ Ibid.

implementation and compliance with the Forest Practices Code; sustainable rates of harvest; promoting on-island processing and job stability; and, the establishment of a community forest tenure and Community Resource Board.

2.1.4 Memorandum of Understanding

Community work and public meetings continued through 1996, culminating in September with the signing of a *Memorandum of Understanding* (MOU) between ICSI and the MoF (See Appendix 2).⁸ The MOU addresses issues raised in *The ICSI Consensus* document and includes commitments by the MoF to re-allocate volumes from the Small Business Forest Enterprise Program (SBFEP) to stimulate local employment and on-island manufacturing. The timber supply commitments under the MOU were as follows:

- up to 35,000 m³ of the Small Business Enterprise Program (SBFEP) volume will be allocated towards a non-replaceable 10-15 year term forest licence and will be tendered reflecting the general objectives of stimulating local employment and on-island manufacturing.
- The SBFEP volumes in TFL 39, totaling 56,000 m³ annually, will be redirected into a form of community tenure. The general objective will be to designate an operating area to be managed by the tenure holder.
- The new apportionment of the TSA allowable annual cut is scheduled to be announced by the Minister. Any new opportunities in excess of existing commitments, will be directed towards community tenures. It is expected that up to 25,000 m³ and may be directed towards community tenures.

The MOU includes a *Statement of General Principles* provided by MacMillan Bloedel, TimberWest, Husby Forest Products, and Western Forest Products outlining their commitments to further enhance local community stability.

During 1997, discussions regarding community forestry continued. In keeping with MOU commitments the MoF expressed its intention to offer for tender a non-renewable, 15 year forest licence of up to 50,000 m³ from within the TSA. The terms of the licence would be written with the Island Community in mind and with the general objectives of stimulating employment and on-island processing. Seven candidate areas for a possible community chart area were identified by the MoF and a timber supply estimate was conducted.

2.1.5 Other Initiatives on Community Forestry

In June 1995, a local community group called Global Links organized a Community Forestry Workshop and a series of presentations in each community on how a community forest might be established on HG/QCI. Although the idea of community forestry had come up in the past, this was the first focused discussion and provided the basis for subsequent work by ICSI.

In September 1997, ICSI hosted a Community Forest Symposium that involved a variety of community forest practitioners and experts from within BC and abroad. The symposium created substantial panel and community discussion around a range of community forest issues. The suitability of a community forest licence on the Queen Charlotte Islands, in particular, was the

⁸ ICSI and MOF. August 28, 1996. *Memorandum of Understanding Between Islands Community Stability Initiative and B.C. Ministry of Forests*. (The Village of Old Massett is not a signatory to the MOU).

subject of extensive debate. It is clear from this forum that a volume-based forest licence would not address the stewardship aspirations and rate of harvest concerns of many Islands residents.⁹

2.1.6 Community Forest Pilot Project

As part of the *Jobs and Timber Accord*, the British Columbia government has made a commitment to design a new community forest tenure and 'pilot' the tenure in three communities. An application process is currently being conducted through the Community Forest Pilot Project. A Community Forest Advisory Committee is developing the proposed terms and conditions of this new tenure. Communities interested in obtaining a community forest pilot are required to submit a detailed proposal outlining how they would develop and manage a community forest in their locale under the new tenure.

Detailed applications will not be solicited or accepted until the Minister of Forests has approved a model for the community forest tenure and established criteria for selection of pilot sites. Such decisions are tentatively expected to occur in April 1998. At that time, a detailed application format will be sent to all communities who are registered as "Applicants". (ICSI has registered the society as an "Applicant" for a community forest pilot and is therefore eligible for a community forest pilot). The selection of pilot projects by the Minister of Forests will be contingent on the passing of necessary legislation. The minister intends to propose such legislation in the spring sitting of the 1998 Legislature.¹⁰

2.1.7 Other Land Base Issues

The context within which a community forest land base might be established on the Queen Charlotte Islands is constrained by the existing land base and current volume apportionment within the TSA. During the consultation process for this study it became clear that this is currently the single biggest concern with the community forest idea. It was also clear that there are varying expectations with respect to the role a community forest would play in resolving the key issues surrounding Islands forest stewardship, cut allocation, and rate of cut. A summary of these land base issues and the status of the TSA landbase is provided below:

(Note the following figures relating to a potential community forest apportionment are based on discussion figures and are intended to provide the context in which a community forest might be established. Although they are directly related to MOU commitments it should not be construed as fact since no official MoF apportionment for a community forest has yet been made. Any apportionment for a community forest will ultimately depend on a number of factors including: eg. the definition of a community forest area and its AAC contribution, the impact of a new community forest tenure on other TSA licence holders including the SBFEP.)

2.1.7.1 Current Land Base and AAC allocation

The timber harvesting land base of the Queen Charlotte Forest District is small in relation to many other Forest Districts and forestry potential is limited in many respects. As noted by the Chief Forester, "the most significant limiting factor in the Queen Charlotte TSA is the presence of forest types of poor timber quality or low timber volume that historically could not be harvested

⁹ Islands Community Stability Initiative. *Community Forest Symposium Proceedings*. September 26-28. 1997.

¹⁰ Ministry of Forests. January 27, 1998. *Notice to Intending Applicants for Community Forest Pilot Project*. p.3.

economically. Areas defined as unavailable for harvest because of terrain-related and economic reasons also present significant limitations to the size of the timber harvesting land base.”¹¹

Tree farm licences cover approximately 54% of the total forest land base (excluding parks, communities, and private lands outside TFLs) and contribute an AAC of 1,425,000 m³. The TSA covers 464,827 hectares (ha) (46 % of the total land area), of which 348,382 ha are considered to be Crown productive forest. The area of the productive forest land base which is considered available for conventional timber harvesting totals 64,045 ha, or 13.8 percent of the area of the TSA. In addition to this, 13 000 ha (2.8% of TSA) of low volume cedar stands were identified in the last AAC determination and added to the land base. This area is the timber harvesting land base under the current management regime. It provides the basis for the current partitioned AAC of 400,000 m³ conventional and 75,000 m³ from low volume cedar stands.¹²

2.1.7.2 TSR Data Weaknesses

There are acknowledged weaknesses (from the last TSR) in the forest resource inventory and operability information for the TSA as well as in the growth and yield data and assumed site indices for old growth stands. This has created a degree of uncertainty and lack of confidence within the community as to the validity of the timber supply review and AAC determination for the TSA. These weaknesses are currently being addressed for incorporation in the next timber supply review. Substantial progress on the priorities identified in the MOU has already been made to date.¹³

2.1.7.3 Apportionment Issues

Of the 475,000 m³ TSA AAC, approximately 26% (122,000 m³) is currently apportioned to short term sales within the existing small business program (SBFEP) while the remainder is committed to longer term forest licences and woodlot licences. It is from within this 122,000m³ that the tentative 50,000m³ community forest licence tenure would be apportioned. In lieu of a forest licence, the volume that might be associated with an area based community forest tenure would still come from TSA lands currently contributing to the SBFEP cut. Either way, with the establishment of a 50,000 m³ community forest tenure within the TSA, the SBFEP volume apportionment would drop to approximately 70 000 m³.

Local small business operators and the wood manufacturers association are extremely concerned that the establishment of a community forest tenure within the TSA will affect their viability by reducing even further, their already small slice of the apportionment pie. There is a strong feeling that this is unfair and that some of the volume required to establish a community forest should also come out of other Islands tenures. The MoF has indicated that they cannot legally consider removing additional land or volume from other tenures holders to create a community forest.

The perception that a community forest tenure would alienate volume from the small business community is not entirely correct. A community forest should be complementary in that it should provide opportunities for contracting to local small businesses. (This relationship is assumed throughout this report). Having a portion of the SBFEP volume apportionment administered by a

¹¹ Pederson, L. 1996. *Queen Charlotte Timber Supply Area Rationale for Allowable Annual Cut (AAC) Determination*. p. 10.

¹² *ibid.* p. 4.

¹³ see, for example, Ministry of Forests. March 1998. *Timber Supply Analysis Data Preparation Status for the Queen Charlotte TSA – Information Status Report*.

community forest will be an advantage to local independent loggers because the community will be able to restrict tender to Islands businesses as a means of enhancing local employment. In this respect, a community forest could help achieve many of the needs of the small business sector.¹⁴ This could be further enhanced through provisions for increased local processing. There should be no net loss of volume opportunity to the local sector from the establishment of a community forest except through the determination of potentially lower harvest levels from the community forest land base.

Notwithstanding, it is recognized that the small business sector with the most to lose would be the market loggers if one assumes that the community will only operate on a phase contracting basis or requires all wood to go through a local log yard or to local mills. For this reason the maintenance of a healthy small business program would still be required outside of the community forest to maintain a range of timber sale opportunities. The CFO may also elect to provide a portion of the community forest volume in the form of community timber sales (i.e., from west coast areas) if the new tenure relationship allows for this.

2.1.7.4 Deferred Areas

The SBFEP harvest apportionment within the TSA is complicated by the deferral, by the Haida Nation and Island Community, of harvesting in two large areas (the proposed Duu Guusd Tribal Park and Tlell River Watershed) that together represent over a third of the timber harvesting land base and contain over 40 percent of the mature timber volume in the timber harvesting land base.

The land use issues associated with these deferred areas are to be addressed in part through planned interim measures negotiations for forestry between the Haida Nation and the MoF (pending the resolution of Haida land claims). These land use issues are also to be addressed in part through a consensus based higher level strategic planning process (LRMP) pending some agreement on Haida involvement in that process.

The continued avoidance of harvesting in contentious areas means that the remaining areas must be harvested at higher rates. It also means that practically all the remaining areas are involved in the SBFEP five year development plans have experienced varying levels of development. If the deferrals continue, at some point, the achievement of integrated resource management objectives may prevent higher rates of harvesting in these remaining areas affecting both the potential apportionment of the SBFEP and a community forest.

2.1.7.5 TFL Take-back Volume

Finally, in addition to approximately 50,000 m³ committed from the TSA (SBFEP), the MOU also commits to redirecting the SBFEP volumes within TFL 39 (56 000 m³) into a form of community tenure. (The implication is that the total volume available to a community forest tenure will ultimately be approximately 106,000 m³.) How this volume would be transferred from within the TFL to a community tenure however has yet to be resolved by the MoF and the TFL holder.

It was noted during the consultations for this study that one of the community's preferred options for dealing with this commitment is that an area within the TFL that is associated with part of the Tlell watershed, be paired with an adjacent TSA portion of a community forest to create a

¹⁴ which were identified in Strathinnes Forestry Consultants. 1992. *Evaluation of the SBFEP in the QCI Forest District*.

contiguous, logical unit. This solution however is contentious with the TFL holder and would probably require the development of some form of partnership arrangement between the CFO, the MoF, and the TFL holder that would allow joint objectives to be pursued. No initiative on this has so far been taken. There is also no indication at this point in time as to whether the Tlell watershed portion of the TSA would be included in a community forest. There are also likely to be other ‘candidate areas’ within the TFL from where the volume could come.

The MoF has indicated that they are unwilling to make this volume commitment immediately available until a community forest operation has been established and is up and running smoothly. In the meantime, the 56,000 m³ would remain within the small business program under the current apportionment system.

2.1.7.6 Context of this Study

The resolution of the above land base issues cannot be resolved by the establishment of a community forest alone. They will certainly not be resolved by this feasibility study. (This study assesses the feasibility of a community forest established within the defined TSA candidate areas.)

The definition of a community forest area and a volume or AAC apportionment, will ultimately be determined by the Ministry of Forests (MoF) following a negotiation process between the MoF, the existing licence holders, the SBFEP, the Island Community. The broader land use issues must be dealt with through the MOU, the LRMP process and interim measures agreed on between the Haida Nation and the government pending resolution of Haida land claims. The technical issues associated with the TSR analysis will need to be addressed through MOU commitments leading to the next analysis.

This study deals with a subset¹⁵ of the broader issues. The study focuses on the establishment of a community forest within the TSA. It assumes that the community forest will be established on the basis of the MOU commitments.

2.2 Guiding Principles for the Community Forest

It is evident from the preceding section that there is considerable interest in, and awareness of, forestry issues on the Islands. The Island Community is committed to establishing a community forest and becoming more involved in land use and forest management. The forest management goals and principles contained in *The ICSI Consensus* are a logical starting point to guide the establishment and management of the community forest and are provided here as context for the remainder of this feasibility study (see Box 1).

Box 1: The ICSI Consensus: Goals and Guiding Principles

Forest Management Goals

- To ensure the long-term health of the forest and the stability of the resource-based economy by establishing an inventory and planning process to determine sustainable levels of harvest and to establish those levels within three years.

¹⁵ It is important to keep the context of a ‘community forest’ on the Queen Charlotte Islands/Haida Gwaii in perspective. At 50,000 m³ or even 106,000 m³, a community forest tenure will be but a small subset of the overall Island land base and harvest level. (50,000 m³ / 470,000 m³ = 10% of TSA AAC ; 106,000m³/ approx 1.8M m³ = 6% of QCI AAC).

- _ To provide greater local employment and economic benefits to communities through small business forestry interests having greater access to wood.
- _ To promote processing and manufacturing of timber resources on the Islands.
- _ To ensure a cooperative and responsible forest management system that incorporates the Island Community's values and knowledge.
- _ To chart a long-term land-use option for presentation to the Council of Haida Nation and the Province of BC that will bring greater certainty and alleviate resource conflict.

Social Principles

- _ Promote the well being of the Island Community, for this and future generations.
- _ Endeavor to maintain the unique qualities of life that people enjoy today.
- _ Enhance the quality of life through diversified economic opportunities on these Islands.
- _ Seek opportunities, such as education and training, that will enhance the quality of life for individuals.
- _ Set a target of full employment for Islands people.
- _ Work with agencies to establish sound principles of management that will not compromise the same opportunities for future generations.

Economic Principles

- _ Promote a dynamic Islands economy that maintains options for future land and resource use.
- _ encourage diverse and innovative options that increases the employment and other benefits derived from a given stock of resources.
- _ Promote on-Islands processing of natural resources.

Environmental Principles

- _ Support practices that maintain biodiversity.
- _ Promote forestry practices consistent with nature's inherent ability to replace the resources used.

2.3 Support for a Community Forest in the Island Community

The principles surrounding aspirations for more community involvement in forestry on the Islands are specified in *The ICSI Consensus* and are the result of many years of meetings, discussion, and community process. Many other communities interested in a community forest in B.C. will not yet have been through the years of dialogue that have lead to this consensus. The Islands Community is fortunate that in Haida Gwaii/Queen Charlotte Islands there is this strong foundation to build upon. During one interview, the central message that pulls the communities together was restated this way: “Community stability is the key. *The ICSI Consensus* document spells it out - stability is the guiding principle.”

Nevertheless, concerns were raised in interviews and meetings that divisiveness between communities may present a stumbling block for the community forest. As one person put it: “The biggest single danger to the community forest idea is the risk that the individual communities of interest on the Islands will not stay together.” Given that the Island Community is made up of at least seven distinct settlements, it is reasonable to question whether a shared interest is strong enough for all to work together on one community forest. The dominant opinion, however, seems to be that the communities will continue to pull together and make things happen, as they already demonstrated in the achievement of the *ICSI Consensus*. This will be crucial to the success of a community forest on the Islands.

While the Islands Community is made up of several distinct communities, the people of these communities come from two basic cultural backgrounds: Haida and non-Haida. While many

residents would like to take the emphasis off racial distinction, the consensus within the community clearly indicates that a shared 50-50 ‘partnership’ relationship between the two community backgrounds is the most realistic and appropriate way in which to approach the establishment of a community forest. The distinctive history and traditions of the Haida, current court rulings around the rights of First Nations, and a future that will be shaped by Treaty settlements are all factors that make a recognition of the two cultures appropriate and realistic. Generally, community members seem to agree that the community forest can move forward with this recognition, building on shared interests and providing win-win opportunities for Haida and non-Haida alike.

Most community members seem to agree with the participant who stated that, despite concerns over community cohesiveness, “. . . we are pulling together and can make it happen.” Another participant put it this way, “We are all in one canoe and need to keep paddling together, in the same direction.”

No one is under the illusion that making the community forest work will be easy, but there is optimism that the wisdom of a community that has survived “through thick and thin” can make the vision a reality. The alternative of maintaining the status quo is generally less palatable. As one community member put it, “necessity is the mother of invention.” The “dreamers” and the “doers” must pool their efforts. Hands on experience, learning and participation should strengthen the sense of community ownership over time. A workshop participant summed it up as follows: “We really do have the opportunity to manage the land sustainably and do it right.” Another indicated that “A community forest is the opportunity we have been waiting for to show the world what we are capable of, and how we can do it better than any one else.”

3. Tenure

A community forest tenure would create both substantial rights and significant responsibilities for the Island Community. This section outlines:

- _ the key elements of an appropriate tenure for communities;
- _ tenure options that are currently available to the Island Community; and,
- _ recommendations on a tenure option suitable to the Island Community.

3.1 Key Elements of an Appropriate Tenure

A community forest tenure should provide meaningful delegation of authority and responsibility for resource management to the Island Community. It should provide the Community with a sense of ownership over a defined forest area and provide the flexibility to manage for a wide range of values. Elements of an appropriate tenure to achieve these goals includes the following:

3.1.1 Area-Based

An area-based tenure is the most suitable tenure for achieving the broad range of community objectives as outlined in *The ICSI Consensus*. Volume-based tenures provide no direct link to a specific landbase that the Island Community can identify with, and exercise management control, over.

3.1.2 Community-based Determination of an Allowable Annual Cut (AAC)

The *ICSI Consensus* reflects the commonly-held view that current harvest rates are too high on Haida Gwaii/Queen Charlotte Islands and that the social and economic interests of the Island Community have not been adequately addressed in past AAC determinations. In British Columbia, AACs are determined under the *Forest Act* by the Chief Forester of the Province who considers a number of factors in his AAC determination. These factors include the rate of timber production that can be sustained on the area (given the productive land base, existing forest profile, and expected rates of growth); the capacity of timber processing facilities dependent on timber supply from the area; the economic and social objectives of the Crown (as directed by the Minister of Forests); and objectives for non-timber resource values.

The community forest tenure should allow the community to regulate the timber yield from the community forest as part of a community-based planning process that considers a full range of timber and non-timber values and community objectives.

It may also be appropriate for the community forest land base to be deleted from the timber harvesting land base used to determine the AAC for the whole TSA to prevent distortion of the TSA AAC for investments made by the CFO on community forest lands.

3.1.3 Flexible Cut Control

Cut control refers to the regulation of actual harvest volumes relative to the prescribed AAC. The purpose of cut control is to provide reasonable social and economic stability (employment and revenues) to the community and the provincial government (albeit, at considerable economic cost when licensees are forced to log during market downturns).

Cut control sets annual and periodic limits on cut levels expressed as a percentage of the AAC. For example, current cut control regulations for tree farm licences (TFLs) and forest licences (FLs) specify that licensees must harvest plus or minus 50 % of the AAC in any given year; and, plus or minus 10% of the AAC within a 5 year period. Woodlot Licences (WL) are more flexible than other tenures in that there is no annual cut control, but the licensee must harvest within 10% of the AAC over a 5 year period. Note that for volumes less than 50,000 m³, the regional manager may substitute a different requirement on application from the licensee.

A community forest tenure should provide some flexibility for communities to pursue a moderated market logging strategy yet not be compelled to harvest at a significant loss during market down cycles. Given the comparatively small timber volumes that communities will be producing, the ability to exercise flexibility in cut control may be crucial to their economic viability.¹⁶

3.1.4 Long-Term and/or Renewable in Perpetuity

In order to promote long-term stewardship options and incentives, a community forest tenure should be for a lengthy term and/or renewable in perpetuity, subject to meeting provincial and federal legislative standards. The tenure should explicitly recognize that the community is making

¹⁶ for example, a moderate market logging strategy has been used on the Mission Municipal Forest (TFL 26). See Allan, K. and D. Frank. Community forests in British Columbia: Models that work.. *The Forestry Chronicle*. Vol. 70, No. 6. pp. 721-724.

a long-term investment in its future. A tenure of 99 years, renewable every 30 years, has been suggested as an appropriate term for a community forest.¹⁷

3.1.5 Non-Transferable

The community forest tenure should not be transferable to prevent the possible reversion of a community forest tenure to corporate control that is not community-based. Retaining the option to convert the tenure to something more suitable would be appropriate.

3.1.6 Basis for Termination

Crown tenures in British Columbia generally have a 'use it or lose it' clause expressed under the cut control regulations that requires a licence holder to actively manage the licence according to the terms of the licence agreement. These conditions would need to be examined carefully, especially in light of the cut control and yield regulations applicable to the licence. There may be conditions under which the Island Community would want to relinquish the licence and these should be spelled out in the licence agreement.

3.1.7 Returns to the Crown

One of the key issues for a community forest tenure is the mechanism by which the CFO would compensate the government for the use of Crown forest assets. The objective of a fair revenue mechanism is that it return to the government fair compensation for the use of Crown forests (i.e. rent) while not excessively distorting the communities management objectives and investment behavior.¹⁸ Existing forest tenures under the *Forest Act* provide for payments to the Crown through:

- _ stumpage (a price charged {per cubic metre} for timber harvest from publicly owned forest land) ;
- _ ground rent (a charge/year for each hectare of Crown forest within the licence area);
- _ royalty (a payment {charge per cubic metre} made by the owner or leaseholder of a forest for predetermined exploitation rights); and,
- _ "bonus bid" (an amount paid per cubic metre determined by competitive sale of logs).

Stumpage is the most common form of revenue capture by the Crown. The mechanism for stumpage determination should compensate the Crown adequately but also permit the CFO to retain sufficient revenue to achieve community forest objectives. Stumpage is determined through the MoF stumpage appraisal system. The system takes account of the average costs of planning, engineering, road construction and harvesting under different harvest methods and operating conditions and determines a stumpage rate according to a comparative value pricing formula.

An issue for the CFO will be the determination of appropriate stumpage when alternative harvesting systems are used. Stumpage adjustments for alternate harvesting systems have recently been incorporated into the stumpage appraisal system. The CFO will need to work closely with the MoF to ensure that stumpages assessed for the community forest reflect the higher costs of community-based planning and alternative harvesting that are likely to be incurred on the community forest to meet non-timber objectives.

¹⁷ Dunster, J. 1989. Concepts underlying a community forest. *Forest Planning Canada*. 5:6. pp. 5-13.

¹⁸ Community Forest Advisory Committee. Community Forest Pilot Project. Background Discussion Paper 1. p.

Ground rent may be an appealing revenue mechanism for both communities and the provincial government. The government is compensated for the use of Crown Land on an annual basis, providing revenue assurance and stability. Given this stability, the Crown may be more willing to allow communities to determine the AAC and more willing to accept flexible or no cut control policies, which would be advantageous to communities. A concern here would be the community's ability to pay the ground rent if no harvesting occurred in that year.

Stumpage, royalties, and ground rent, or some combination of these may be suitable mechanisms for revenue generation to the Crown under a community forest tenure as long as the stumpage or ground rents reflect the (likely) higher operating costs of a community forest and provide the community with sufficient earnings to manage the CFO and re-invest in the forest.

3.1.8 Comprehensiveness

The community forest tenure should provide the Island Community with secure and exclusive use of the forests within the licence area (subject to provincial and federal legislation). While these areas should be open for public use, the tenure should give the Island Community the right to regulate the use of both timber and non-timber resources.

3.1.9 Subject to Provincial and Federal Laws and Regulations

Numerous provincial and federal laws and regulations affect forest management in British Columbia.¹⁹ These laws and regulations reflect contemporary values and expectations for environmental protection, worker safety, and so on. The legislation and regulations governing forest management in B.C. are substantial and the full extent of these responsibilities should be carefully considered prior to entering into a forest tenure agreement. It is unlikely that a community forest tenure would exempt communities from any laws of regulations.

3.1.10 Management Responsibility

Along with conferring rights to resource use, tenure arrangements also confer management responsibilities. As a general rule, the more stewardship rights and exclusivity that are conferred to a licensee through a tenure agreement, the greater are the management responsibilities, legal liabilities and financial obligations. For example, tree farm licences carry the greatest set of responsibilities including:²⁰

- the maintenance of resource inventories (forest, recreation, fisheries and wildlife);
- the development of a licence management plan (management objectives, preferred options, and AAC calculation - revised every five years, 20 year plan);
- the development of operational plans (annual five year development plans, cutting permit applications, silviculture prescriptions, logging plans, access management plans;
- forest protection from fire, insects and disease; and,

¹⁹ an overview of 18 pieces of provincial and federal legislation relating to forestry in British Columbia is provided in Appendix 4. This information was prepared for a community forest feasibility study undertaken for the community of Malcolm Island by Robin B. Clark Inc. and remains current today.

²⁰ The primary difference between the responsibilities of TFLs versus FLs and WLs are that the latter are not required to maintain resource inventories or develop licence management plans (including AAC options). Operational planning requirements however remain in effect. Protection responsibilities are limited to operational fire protection.

- _ basic silviculture (reforestation to free to grow).

The primary difference between the responsibilities conferred on TFLs and on FLs and WLs are that the latter are not required to maintain resource inventories or develop licence management plans (including AAC options). Operational planning requirements however remain in effect. Protection responsibilities are limited to operational fire protection.

The primary implication of licence responsibilities for a community forest relate to the financial liabilities and time requirements inherent in developing and maintaining resource inventories and in developing detailed management plans. This may affect time frames for the startup of a community forest and have a negative effect on community stability unless interim operating plans can be developed and approved.

3.1.11 Ensuring Management of the Community Forest Continues to Reflect Community Objectives.

The tenure should provide for periodic review to ensure that the Island Community's and the Crown's objectives are being met. The tenure should also be amenable to revision to reflect changing needs and values.

3.1.12 Without Prejudice to the Interests of the Haida Nation

The community forest tenure must be without prejudice to the interests of the Haida Nation. Language to that effect would need to be incorporated into the tenure agreement.

The following section describes the existing tenure options available to the Island Community and makes recommendations on a preferred option.

3.2 Tenure Options

The two tenures that are currently available to the Island Community are a non-replaceable, 10-15 year forest licence and, potentially, one of the new 'community forest licenses' being piloted under the Community Forest Pilot Project.

3.2.1 Non-replaceable, 10-15 year Forest Licence

A non-replaceable, 10-15 year term forest licence has tentatively been offered to the Island Community through the MOU. The MOU states that:

- _ up to 35,000 m³ of the Small Business Enterprise Program (SBFEP) volume will be allocated towards a non-replaceable 10-15 year term forest licence and will be tendered reflecting the general objectives of stimulating local employment and on-island manufacturing.
- _ the SBFEP volumes in TFL 39, totaling 56,000 m³ annually, will be redirected into a form of community tenure. The general objective will be to designate an operating area to be managed by the tenure holder.
- _ The new apportionment of the TSA allowable annual cut is scheduled to be announced by the Minister. Any new opportunities in excess of existing commitments, will be directed towards

community tenures. It is expected that up to 25,000 m³ and may be directed towards community tenures.

A non-replaceable forest licence is for a fixed term, in this case 10 to 15 years. Once the forest licence expires, the CFO would need to re-negotiate a new licence with the MoF, however, the ministry would be under no obligation to do so. (A “non-replaceable” forest licence differs from a “evergreen” forest licence in that the latter confers a legal right to indefinite renewal of the forest licence).

A forest licence is a volume-based tenure. The licence would confer the right to harvest a specified annual volume of wood from within the Queen Charlotte TSA. The CFO (as holder of the licence) would be directed by the MoF to a 'chart area' within the TSA to harvest the allocated volume. The CFO would then be responsible for undertaking all operational planning, road building and reforestation, and meeting all statutory and regulatory requirements for forest management. A forest licence does not, however, convey the exclusive right to manage the forest. For example, a forest licence does not permit:²¹

- _ the regulation of timber harvesting rates within specific locations;
- _ levying fees or issue licences to harvest non-timber forest products;
- _ construction of recreational facilities;
- _ the control of access;
- _ determination of landscape issues; and,
- _ determine all forms of land use, including mining and water storage.

A forest licence is designed to transfer the rights to harvest timber. It does not confer overall forest management rights and responsibilities to the licensee. The forest licence is the most common type of licence in B.C. but it is not well suited to meeting broad community objectives for forest management.

3.2.2 'Community Forest Tenure' Pilot

The development of a new community forest tenure is discussed in Section 2.1.6. The specific terms and conditions of this new tenure are not yet known, however, the Community Forest Advisory Committee has recommended to the government that the tenure be area-based, long-term and convey "stewardship rights and responsibilities beyond timber management."²² Under this tenure, the CFO would likely assume forest management for a defined community forest area, with rights and responsibilities similar to those of existing area-based tenures (TFL and WL). The CFO would likely be responsible for:

- _ preparing all development plans (e.g. Forest Development Plans, Silviculture Prescriptions, Logging Plans);
- _ obtaining all permit approvals (e.g., road permits, cutting permits);
- _ undertaking or contracting out all road engineering, layout and construction;
- _ undertaking or contracting out all cutblock layout, harvesting and basic silviculture;

²¹ Community Forest Advisory Committee. 1997. *Community Forest Pilot Project: Background Discussion Paper 1*. p. 6-7.

²² Ministry of Forests. *Committee offers initial recommendations for community forest tenure models*. Press Release, Corporate Policy and Planning Branch, January 14, 1998.

- _ ensuring compliance with all federal and provincial Acts, regulations and policies applicable to forest management in B.C.; and,
- _ stewardship and management of non-timber forest products, services, and values.

This tenure would allow the CFO the most opportunity to pursue its forest management and community economic objectives. However, the CFO would also assume all the legal, financial and management responsibilities of a major licensee which are substantial.

3.2.3 Tree Farm Licence and Woodlot Licence

Other tenures under the *Forest Act* that have been used by communities to establish a community forest are the tree farm licence (TFL) and woodlot licence (WL). These are both area-based tenures.²³

A TFL conveys the exclusive right to manage forests and harvest an AAC from the area under licence. TFLs carry additional management responsibilities over and above a forest licence. These responsibilities include maintenance of resource inventories, strategic and operational planning, road building and reforestation, and forest protection. A TFL may be a suitable tenure in the event that a community forest tenure is not available to the Island Community through the pilot project, however, the Ministry has given no indication that new TFLs will be made available province-wide.

A WL has many of the same rights and responsibilities of a TFL. A woodlot licence is not suitable for the Islands, however, because the Crown portion of a WL cannot exceed 400 hectares on the coast (600 hectares in the interior). This area would be too small to support a community forest. A more detailed description of forest tenures types is provided in Appendix 4.

3.2.4 Recommendations on Tenure

An appropriate community forest tenure should be consistent with the Island Community's aspirations to manage the forest for a diversity of economic, social and environmental objectives. The tenure should provide long-term security and management authority for the community.

A non-replaceable forest licence would not be the most suitable tenure for the Island Community. The volume-based nature of this licence is a major obstacle to the development of a comprehensive approach to forest management as it provides no direct link to control and management of a defined land base. Also, the non-replaceable forest licence would expire in 10 to 15 years which would not provide the Community with the long-term security necessary to promote investment and community stewardship.

A community forest licence under the Community Forest Pilot Project is the most suitable option for the Island Community to pursue at this time, providing that the tenure:

- _ is area-based, and located in areas which have broad support from the Island Community;
- _ provides for significant local control over management of forest values, particularly, the determination of a sustainable rate of timber harvest; and,

²³ The Mission Municipal Forest is TFL 26 and the Revelstoke Community Forest is TFL 56. There are about 25 community-based woodlots in B.C. See Community Forest Advisory Committee. 1996. *Community Forest Pilot Project. Background Discussion Paper 1*. Appendix 1 pp. 21-25 for a listing of established community forests in B.C.

- contains a revenue mechanism which fairly compensates the Crown for the use of Crown forest assets, but allows the Community to capture sufficient revenue to run a CFO and invest in the long-term stewardship of the forest lands.

In the event that the community is not successful in obtaining a community forest licence through the Community Forest Pilot Project, following up on the commitments made in the MOU would at least address some of the Community's concerns until such time as the community forest tenure is made more widely available to B.C. communities.

4. Organizational Structure

This section outlines a proposed legal and administrative structure for the community forest. The structure of the CFO should:

- reflect community values as expressed by community stakeholders and *The ICSI Consensus*;
- provide for representation of all the Islands' communities (Masset, Old Massett, Port Clements, Queen Charlotte City, Sandspit, Skidegate, Tlell and other rural settlements);
- ensure balanced representation between Haida and non-Haida communities;
- establish a decision making process that is open, and inclusive;
- ensure efficient and professional management;
- be accountable to the Island Community; and
- have a formal legal structure.

4.1 Legal Structure

[Note: this draft section is currently being reviewed by Garry Mancell, Davis & Co., ICSI legal counsel]

This section reviews the legal structures that may be suitable for establishing the CFO.

Options for a legal structure for the CFO include a corporation, a non-profit society, or a cooperative. The CFO could also be established as an administrative department under an existing municipal government. The advantages and disadvantages of these alternative legal structures is provided below.

4.1.1 Department within a Municipality

Under this option, a municipal government would enter into the licence agreement with the MoF to establish the community forest and would assume all forest management responsibilities. Day-to-day management could be undertaken by a forestry department, reporting to a municipal council. The advantage of this option is that there is clear accountability to a duly elected legislative body through the existing municipal government structure as well as an established administrative and financial structure.

This was the route chosen by Mission and North Cowichan to administer their community forests. The North Cowichan Municipal Community Forest consists of municipally-owned land held in a Municipal Forest Reserve under the *Municipal Act*. The forest is administered by a forestry

department of the Corporation of the District of North Cowichan. The Mission Municipal Forest is primarily Crown land, and some municipally-owned land, managed under a tree farm licence held by the District of Mission, also managed by a forestry department.²⁴

There are several disadvantages to this option for the Island Community. The Island Community is composed of a mix of incorporated villages, electoral areas, Indian Bands and an unincorporated community (Queen Charlotte City). No local government on the Islands is in a logical position to be the legal entity to hold the community forest licence. A licence held by the Skeena/Queen Charlotte Regional District would likely not be satisfactory for the regional district or the Island Community either. The Island Community is geographically isolated from the regional district administration which would make it difficult to maintain open communication and accountability to the Island Community. The regional district would also be assuming significant new responsibilities on top of current programs and priorities in order to provide benefits that would only accrue to residents within a portion of their regional district. Also, municipal council members may not be in the best position to undertake the long-term management responsibilities of a community forest given other municipal priorities.

4.1.2 Corporation

The CFO could be established as a corporation under the *Company Act*, with its own legal identity, shareholders and board of directors. For example, the Revelstoke Community Forest is managed under a tree farm licence by a municipal corporation, the Revelstoke Community Forest Corporation (RCFC), the shares of which are held by the Municipality of the City of Revelstoke.

The purpose of a corporation is outlined in the corporation's memorandum and can be broadly or narrowly defined by the founding shareholders. Directors can be chosen through a variety of ways by the shareholders as outlined in the shareholders agreement. As long as the corporation manages its affairs with reasonable care, the directors of a corporation are not liable for its debts and obligations except for limited statutory exceptions. Shareholders are also not liable for the corporation's debts. Corporations are required to pay all taxes, including provincial sales tax, Goods and Service tax and corporate tax. Where income is distributed to shareholders, the income is then taxed in their hands rather than the corporation. Where the corporation is a subsidiary of a municipality, the corporation is tax exempt.²⁵

A corporation may be a suitable legal structure for the CFO. The corporation's memorandum can be written such that its purpose is closely aligned with the Island Community's aspirations for the community forest as outlined in a comprehensive community forest charter. Establishing the CFO as a corporation would limit liability for the directors and shareholders which would be beneficial. Shares in the corporation could be narrowly held and not publicly traded to ensure continued community control over the community forest. The shares of the corporation could be held by:

- _ the Skeena/Queen Charlotte Regional District, on behalf of the Island Community;
- _ the ICSI Society, which already has a structure that is representative of the Island Community.

²⁴ V. Francis, District of Mission, pers. comm., March 1998.

²⁵ MacLean, J. "Organization of Community Forest Corporation". In: Islands Community Stability Initiative. *Community Forest Symposium Proceedings*, September 26-28, 1997. pp. 35-38.

The process of establishing the board of directors of the CFO would be outlined in the shareholders agreement. The board could be composed of elected representatives from the Islands communities as outlined in Section 4.

4.1.3 Cooperative

Cooperatives are established under the *Cooperative Association Act*. Cooperatives have a separate legal existence with a board of directors chosen by members. The purpose of a cooperative is described in the cooperative's memorandum or rules which can be defined narrowly or broadly. Only members can benefit from the goods or services provided by the cooperative. Profits of a cooperative are distributed to members through dividends. Profits can be retained in the cooperative for reinvestment to expand services to members.

Governance of cooperatives is based on one vote per member and is not based on share holdings. Members are not liable for the acts of the cooperative. Directors have limited liability.

A cooperative may be a suitable legal structure for the CFO, with membership in the cooperative comprised of representatives of the Islands' communities as outlined in Section 4.

4.1.4 Society

A society in British Columbia is usually incorporated under the *Society Act*. Societies have an independent legal existence with member and directors. Members and directors are generally not liable for the acts of the society.

Societies are a form of corporation but with special provisions. The purpose of a society must be clearly defined in its constitution and must be either patriotic, religious, charitable, scientific, sporting, educational, professional, or related to one of these purposes. The purposes of an incorporated society must be for the public good. Unlike cooperatives and corporations, a society must not return income to its members. Members of a society generally only have one vote but there is flexibility in structuring the society to have different classes of members.

A society may not be the most suitable legal structure for the CFO given its likely purposes. There is a diversity of views within the Island Community about the specific objectives for the community forest, but it is a common view that the CFO should ensure good stewardship but also be financially self sufficient. One of its primary purposes is to create economic activity and jobs in the community among the for-profit sector. If the community forest is profitable, many island residents expect that profits (over and above those required to establish a capital reserve and reinvest in the forest) should be disbursed in the Community. Given this orientation, a society may not be the most suitable option for the legal structure.

4.1.5 Preliminary Financial Considerations

This preliminary discussion of financial considerations is intended to highlight several of the challenges and choices involved in establishing and operating a community forest. A more definitive discussion is not possible at this time as many aspects of the operating concept are not, at this time, well articulated.

Financial considerations refer to the need for the CFO to look "outside itself" for funds to support its activities. This will occur any time expenditures exceed revenues collected. One would expect this to occur while the CFO is being established. That is, opening an office, hiring the

core staff, and commencing initial planning and forest management. This is referred to in the business case analysis as the “Start-up” phase. This might require up to \$300,000 per annum in the initial years.

After the CFO begins to generate a cash flow, it may still have financial needs because the timing of receipts does not match the timing of expenditures (i.e. the need for working capital) and to respond to unforeseen events (i.e. cost overruns, lower market prices). Financial need may also arise if the CFO wants to make a large capital investment (i.e. cost of developing a comprehensive resource inventory, GIS system, basic silviculture programs, purchase specialized equipment, cost of building primary roads, etc.) in excess of its funds available. Each of these financial requirements poses different requirements on the CFO. (It is anticipated that the CFO will remain lean and contract out the majority of operational activity to businesses on the Islands).

During the “Start-up” phase, it is typically the case that the owners of the organization contribute funds to establish the organization. When the funds are raised through the sale of shares to the owners, this constitutes the owners’ equity in the organization. The CFO will be collectively owned by the Island Community, which poses choices. For example, equity might be raised by the sale of shares to Islands residents.²⁶ Local governments might participate in this offering, or alternatively, could be the sole participants, holding the shares in trust for its residents. It is noted that the structure and decision making procedures of the CFO have implications for the raising of initial equity. There are also legal implications respecting the participation of local governments that will need to be further investigated.

The CFO may require access to funds to meet cash short falls during operations. This might be met by cash calls to the equity holders or by borrowing the funds. Depending on the legal structure of the CFO, and given the diffused community ownership, a cash call may not be a feasible or practical option. Borrowed funds, on the other hand, might consist of short term and long term debt. That is, short term debt for working capital, and longer term debt to purchase investments. The CFO may have access to grant funding (i.e. SMFRA, FRBC, Gwaii Trust, other) which could reduce or eliminate the borrowing requirement. Nevertheless, in the case of a commercial loan, a lending institution will typically ask for recourse to the assets of the borrower as security. Until the CFO has established an asset base this condition may be difficult to satisfy. The community forest licence would likely be a valuable asset, however, it is not known whether the Community Forest Board (CFB) could, or would want to, assign the licence in this way.

The business case analysis presented in a following chapter indicates that the CFO will require funding in the initial start-up years, and will be managing large sums (i.e. possibly in the order of \$5 to \$7 million annually) once timber harvesting operations begin. Clearly, prudent fiscal management is required to ensure the CFO is operated in a financially sustainable manner. Feedback from the public meetings clearly indicated that residents expect this. Fortunately, the CFO has a number of opportunities available from which it can develop a strategy for minimizing its financial risk. For example, opportunities include:

- _ the potential for grant funding from Gwaii Trust and SMFRA;
- _ project funding from FRBC;

²⁶ This could be through the establishment of a non-voting class of preferred shares which would allow equity capital to be raised without affecting the governance structure. Because the shares would be non-voting, control of the CFO would remain in the hands of the elected representatives to the board representing the Islands communities. Conditions may or may not be put on the transferability of the shares to ensure ownership is retained by Islands residents.

- structuring development so that most activities are contracted (i.e. minimize cost of expensive equipment);
- offering timber sales; and,
- establishing mutually beneficial partnerships (i.e. The Revelstoke Community TFL was established through the partnership investment of three local sawmills).

As the CFO and the community forest land base become better defined, these opportunities for financial management can be better assessed to determine the most suitable arrangements.

4.1.6 Recommendations on Legal Structure

The most suitable legal structure for the CFO is probably a corporation under the *Company Act*. A corporation would be able to enter into a forest licence agreement with the MoF but would also have limited liabilities. The memorandum, or articles, of the corporation should describe the purpose of the corporation in a corporate charter. (This may take the form of a *Community Forest Charter* which is described in more detail in the following section on organization).

The shares of the corporation could be held by each of the Islands communities, with a shareholders agreement that establishes a board of directors composed of elected representatives from each of the communities as outlined in the following section. The process of nomination should be spelled out in the shareholders agreement.

The corporate structure may also be a consideration in taxation matters. Unincorporated municipalities are tax exempt under the *Income Tax Act*. Indian Bands are also tax exempt under certain circumstances. Rather than have profits of the corporation taxed at the corporate tax rate of 23%, the Island Community may want to establish a corporate structure such that the corporation acts solely as a trustee of a trust which holds all the assets of the CFO.²⁷ The corporation would disburse all profits annually to beneficiaries of the trust. The seven Islands communities would be the sole beneficiaries of the trust and would report the income from the trust for tax purposes. This trust arrangement could avoid the corporate tax on earnings and takes advantage of the tax exempt status of the incorporated municipalities. The details of such an arrangement would need to be further investigated with a tax specialist.

4.2 Administrative Structure

The CFO should be established with an administrative structure that is responsible and accountable to the Island Community and provides efficient and professional management of the community forest. A proposed administrative structure for the community would consist of:

- a Community Forest Board (CFB) representative of the Island Community that provides strategic direction and establishes policies to guide forest development and stewardship; and,
- professional staff reporting to the Board that is responsible for operational implementation of the CFB policies and plans.

This structure is shown in Figure 1 and explained in more detail in this section.

Figure 1: Proposed Community Forest Structure

²⁷ P. Lailey, Davis & Co., pers. comm., April, 1998.

**Stakeholder Input
into Forest Charter
Stewardship Plan
Annual Reviews**

**COMMUNITY FOREST BOARD
policy development
strategic planning**

Community Forest

**STAFF
development planning
implementation**

4.2.1 Board of Directors

Extensive consultation with Islands residents on the proposed structure of the CFB suggests that its composition be guided by two basic principles. The CFB should:

- _ be representative of, and accountable to, the seven distinct island communities (Masset, Old Massett, Port Clements, Queen Charlotte City, Sandspit, Skidegate, and Tlell and the rural settlements on the east coast of Graham Island); and,
- _ provide for balanced representation of the Haida and non-Haida communities.

It is recognized that each of the Islands communities has distinct characteristics and capacities that can contribute to the success of the community forest. To a certain extent, each of the communities also has distinct expectations with regard to the community forest and the benefits that the community forest will provide for local residents. A board composed of a representative from each of the distinct communities will ensure that each community's 'voice' is heard in the development of the CFO. During the consultations for this study, a board based on representation by communities was acknowledged to be the most politically acceptable and suitable option for the Islands. (Many individuals noted, however, that representatives must work together and put the collective Island Community interest and viability of the community forest ahead of their particular local interest if the community forest is to succeed).

Where island residents have come together on island-wide initiatives in the past, there has been a recognition that both the Haida and non-Haida communities must be represented with a broad balance of interests in decision making. The Gwaii Trust board recognizes this principle through composition of a board made up of Haida and non-Haida representatives. In consultation with residents for this study, it was generally accepted that a similar model is appropriate for the community forest.

Based on these two guiding principles, a proposed composition of the CFB is as follows:

- _ one (1) Director for Old Massett.
- _ one (1) Director for Old Massett CHN.
- _ one (1) Director for Skidegate.
- _ one (1) Director for Skidegate CHN.

- _ one (1) Director for CHN at large.
- _ one (1) Director elected by the residents of Skeena/Queen Charlotte Regional District Electoral Area E to represent the community of Sandspit.
- _ one (1) Director elected by the residents of the incorporated village of Masset to represent the community of Masset.
- _ one (1) Director elected by the residents of the incorporated village of Port Clements to represent the community of Port Clements.
- _ one (1) Director elected by the residents of Skeena/Queen Charlotte Regional District "Modified" Electoral Area D to represent rural communities on Graham Island. "Modified" Electoral Area D refers to the Area D excluding that part of Area D occupied by the communities of Skidegate, Old Massett and Queen Charlotte City.
- _ one (1) Director representing the community of Queen Charlotte City (QCC) through direct election by community residents based on residence within boundaries of the Queen Charlotte, Skidegate Landing Advisory Planning (QSLAP) area. If QCC becomes a municipality under the *Municipal Act*, representation would be by election by residents within the QCC municipal boundaries.

The size of the CFB allows for representation by community and potentially a diversity of expertise and interests. The CFB composition also achieves balanced representation of Haida and non-Haida community interests.

4.2.1.1 Chair Position

In consultations for this study, two options for appointing a Chair were proposed. The Chair could be:

- _ selected by the CFB from among them by consensus or vote; or
- _ appointed by the Council of Haida Nation making an eleven-member board (like the Gwaii Trust model).

The Haida individuals contacted for this study support the second option. Other individuals felt that the chair should be chosen from among the existing board. This matter requires further discussion among the Island Community.

4.2.1.2 Nominees for Board Positions

It has been suggested that nominees to board positions should demonstrate an ability to first represent the interests of the Island Community as a whole and secondly, the interests of their electoral community.

Two options have been proposed for selecting nominations to CFB positions. Some individuals suggested that nominees to Board positions must be on-Islands residents, although not necessarily residents of the community in which they are seeking election (in other words, a Sandspit resident could run as a candidate to represent Queen Charlotte City). Under this option, nominees would be drawn from at large on the Islands.

A second option would be to permit off-island residents to run for positions on the Board representing local communities. This could detract from local control over the CFO, as off-island residents would not be in as frequent or direct contact with their constituents. On the other hand, permitting off-island residents to serve on the Board would broaden the pool of talent and skills available to the Board and could enhance the viability of the community forest.

Based on stakeholder input for this study, we propose that nominations be limited to on-island residents to ensure local control and direction. Off-island expertise can be drawn upon as needed on a case specific basis.

4.2.1.3 Term of Board Directors

A proposed option would be to have six of the initial Board of Directors serve a longer year (e.g. 5 years), and the remainder serve a shorter term (e.g. 3 years) in order to establish a staggered turnover of Board positions and continuity of Board knowledge and activity. Elections to board position would need to be coordinated with municipal and band council elections to avoid the expense and administrative burden of separate elections.

4.2.1.4 Board Decision Making Process

One of the defining attributes of a successful community forest is the ability to achieve community consensus around expectations and objectives for the community forest. The Island Community has already achieved a remarkable level of consensus around goals and guiding principles for forest management on the Islands through *The ICSI Consensus* document. The Community commitment to achieving consensus would need to be carried through to the policy development and decision making of the CFB.

The Gwaii Trust provides one model for consensus-based decision making that is appropriate for the CFB.²⁸ The Gwaii Trust has the following consensus-based decision making process:

1. The Board should decide on the basis of consensus.
2. Should consensus not be reached after a decision has been before the Board for a second meeting, the rule, for the decision at hand, should be consensus minus one.
3. Should consensus minus one not be reached, the Chairperson or a person identified by the Chair, should attempt to mediate a decision.
4. Should mediation in Step 3 fail, the Chairperson should make a decision either by polling or by arbitration.

4.2.1.5 Openness and Inclusiveness

To be successful, community forests should provide for meaningful:

- inclusion of a broad range of community interests in decision-making structures and processes; and,
- participation by the community in projects to achieve community forest objectives, and in monitoring progress towards achieving objectives.

The above recommended CFB structure and consensus-based decision making process should address the issue of broad community representation, and the consideration of a variety of community perspectives on decision making. Additional steps that the CFB should consider to maintain an open and inclusive approach would be to:

- select a chair who can maintain a neutral stance, building consensus and reduce polarization on contentious issues;
- ensure that all Board meetings are open to the public, advance notice of board meeting dates and locations are made known in the Community, and board minutes are publicly available;²⁹

²⁸ *Gwaii Trust Business Plan*. 1994. p. 33.

- conduct an annual open-house to provide residents the opportunity to meet the Board of Directors and provide comments on the operation of the community forest; and,
- provide for independent review and audit of the performance of the community forest operations on a regular basis.

4.2.1.6 Board Role and Mandate

To function well, the CFB must have a clear statement of principles to guide policy development and planning. Once guiding principles and policies are established, they must be translated into forest development plans that are understood and supported by the Island Community and can be implemented by staff and contractors. One of the key roles of the CFB will be to initiate and direct a community-driven strategic planning process to generate these guiding principles and forest development plans. Two key products of this planning process could include:

- A *Community Forest Charter* outlining the values to be managed on the community forest land base, as well as specific goals and objectives for these values.

The Island Community's specific goals and objectives for the community forest will need to be clearly articulated (e.g. for community drinking water, cultural and spiritual sites, fish, recreation, timber, visual quality, wildlife habitat, etc.). The *Community Forest Charter* would be a point of reference for the CFB to develop policies and plans to guide the CFO. Reference back to the *Community Forest Charter* should help Islands residents address resource use conflicts and management priorities as these arise over time. *The ICSI Consensus* is the logical document from which to develop this charter.

- A *Community Forest Stewardship Plan* (CFSP) that identifies the activities to be undertaken on the community forest land base and in support of the CFO.

The CFSP would be the Community's long-term action plan, describing the broad types of activities that would be undertaken on the community forest land base to achieve community objectives (e.g. resource inventories and mapping; zonation for protection, special management and timber harvesting zones; proposed harvesting levels for timber and non-timber forest products (NTFP), acceptable harvesting methods, trail building, market development, etc.). The CFSP would not be a detailed operational plan. Operational plans as required under the Forest Practices Code Operational Planning Regulation would be developed by staff, consistent with the CFSP.

The *Community Forest Charter* and the *Community Forest Stewardship Plan* should be developed through a community-driven planning process, with the assistance of staff and consultants as needed. Island residents should have the opportunity to comment on draft maps and plans and have a community dialogue around the *Charter* and CFSP before they are ratified, for example, through open-houses and public meetings.

4.2.1.7 Relationship Between Board and Staff

Once the *Charter* and CFSP are ratified by the CFB, there should be a high level of assurance that staff can implement them with community support. It is strongly recommended that the board not

²⁹ One person suggested that any Island resident could be invited to attend Board meetings as an observer, but not be permitted to speak during the meeting (unless invited to do so by the Board). Any issues the person might have with the proceedings would then be resolved between the individual and his/her community representative after the meeting. This approach would retain the openness of the meetings, but allow the Board to conduct its business efficiently. This person suggested that there be no "in-camera" meetings.

become involved in implementation of the plan or day-to-day management of the CFO. Operational implementation of the CFSP should be the responsibility of staff and contractors with the operational expertise and the ability to deal with the extensive regulatory and planning requirements under the Code and other regulations.

In a general sense, the Board should prescribe the ends and outcomes of the CFO (which is the intent of the *Charter* and CFSP). They should stay out of the activities (practices and methods) of the CFO other than to say what is unacceptable. The Board's job is to provide guiding policies and strategic direction. Staff must be provided with the resources and the freedom to take the community forest in the direction the Board wants to go and manage the day-to-day business of the organization.

4.2.2 Staffing Requirements

The CFB will require professional staff and technical assistance to manage the community forest. The overall role of staff will be to implement the policies and directives of the CFB. Specifically, staff will:

- undertake strategic planning for the community forest at the direction of the Board and in consultation with the Island Community;
- prepare all operational plans, and obtain all necessary permits and approvals required to undertake forest development;
- oversee forest management in consultation with resource agencies, and working with contractors as needed;
- provide regular reporting the Board and the Island Community on implementation of forest plans and progress towards achieving community objectives;
- assist the Board with business development, budgeting and fund raising; and,
- generally ensure the prudent and professional day-to-day management of the community forest and meet all regulatory requirements and standards.

The CFO will be responsible for compliance with all provincial and federal legislation pertaining to forest management on Crown lands, including the *Forest Practices Code of British Columbia* and regulations, the *Forest Act*, the federal *Fisheries Act* and numerous other statutes, regulations and guidelines. The legislative and regulatory environment affecting forest licensees in British Columbia is substantial and creates significant legal liabilities and administrative responsibilities. The staff of the CFO must have the expertise and resources to ensure compliance and the exercise of due diligence in all matters pertaining to the community forest.

The number of staff required, and their qualifications, will depend on the size of the community forest, the responsibilities under the tenure agreement, and the scope of activities undertaken by the CFO. Other community forests in B.C. with similar forest management responsibilities to that contemplated for the Haida Gwaii/Queen Charlotte Islands community forest, have a staff complement of five to nine. For example:

- the Mission Municipal Community Forest employs a staff of seven to manage their community TFL of 10,400 hectares with an AAC of about 45,000 m³. The staff consist of two

- professional foresters and five other support staff (including a technician, forestry foreman and secretary).³⁰
- the Revelstoke Community Forest Corporation has a staff of five to manage their community TFL with a harvest of 90,000 m³/year. Staff consist of a general manager, operations manager, woodlands manager, administrator and accountant.³¹
 - the North Cowichan Municipal Forest is a 4,800 hectare forest managed by a Forestry Department of the Municipality of North Cowichan. Annual harvests range from 11,000 m³/year to 18,000 m³/year. The reserve is managed by a staff of three, which is assisted by 3 volunteer appointed foresters and 3 elected officials who serve on a Forestry Advisory Committee.³²
 - a staff of nine was proposed for the Prince George Community Forest, for a proposed harvest of 100,000 m³/year on 50,000 hectares of community forest.³³

A staff of four is proposed for the HG/QCI community forest organization. Staff would consist of a General Manager, an Administrative Forester, an Operations Manager and an Office Administrator/Controller. A preliminary list of job responsibilities for each of these staff positions is described below:

4.2.2.1 General Manager

The General Manager would play a vitally important role in the CFO. The General Manager must have extensive forest business and administration experience and act as the champion for the community forest. The General Manager would be responsible for:

- regular reporting and accountability to the Board on all operational aspects of the community forest operation;
- assisting the Board with development of guiding principles, policies and strategic plans for the community forest (including the *Community Forest Charter* and *Community Forest Stewardship Plan*) through consultation with Islands residents;
- coordinating community input into forest plan development and providing regular reporting to the Island Community on progress on forest development plan implementation;
- overseeing all staff and contractors;
- ensuring all legal requirements are met and the due diligence is exercised in all forest operations; and,
- helping the Board to raise funds and develop partnerships with organizations and individuals that can further the objectives of the CFO.

4.2.2.2 Administrative Forester

The Administrative Forester would be primarily responsible for ensuring compliance with all federal and provincial Acts, regulations and policies applicable to forest management. The

³⁰ Allan, K. Case Study on Mission Municipal Community Forest. In: *Community Forestry Symposium Proceedings*, September 26-28, 1997. p. 61.

³¹ L. Thrane, RCFC, pers. comm., March 1998.

³² Allan, K. and D. Frank. 1994. Community forests in British Columbia: Models that work. *The Forestry Chronicle*. Vol. 70, No. 6. p. 721.

³³ Cortex Consultants Inc. 1996. *Feasibility Study: Prince George Community Forest*. p. 85-86.

Administrative Forester should be a Registered Professional Forester with extensive experience with the Forest Practices Code. The Administrative Forester would:

- _ prepare forest development plans, silviculture prescriptions, and logging plans; .
- _ obtaining all permit approvals (e.g., road permits, cutting permits);
- _ undertake or develop contracts for road engineering, layout and construction; and,
- _ undertake or develop contracts for cutblock layout, harvesting and basic silviculture.

4.2.2.3 Operations Manager

The Operations Manager would oversee forest management practices in the community forest, ensuring compliance with all approved plans, permits and approvals and providing direct oversight of all contractors as needed.

Once of the most important jobs of the operations manager will be ensure quality control in all aspects of logging and hauling. The value of logs is greatly enhanced, or degraded, by decisions made in falling, bucking and hauling. As one Islands resident pointed out, many licensees “make 90% of the profit on 10% of the profile and work like hell to get rid of the rest.” The 10% of the profile containing the very high grades of wood must be cut and handled carefully to maximize their value.

4.2.2.4 Administrative Assistant

The Administrative Assistant would support the professional staff by providing office administrative service, accounting, payroll, and day-to-day liaison with community residents visiting the community forest office.

4.2.2.5 Contractors

The CFO staff would rely on qualified contractors to undertake most of the forest management activities in the community forest, including inventory work, planning, engineering, road building, harvesting, log hauling and silviculture.

5. Assessment of Candidate Areas

The identification of the candidate areas for a community forest was done by the MoF in consultation with ICSI. The original selection of candidate areas was based on a number of interests, issues, and constraints with the intention that they create a basis for discussion on the size and selection of areas needed to support a 50,000 m³ annual harvest. From the MoF perspective, the candidate areas for a community forest had to:

- _ come from uncommitted portions of the TSA;
- _ include the full profile of QCI timber types, values, operability, and access;
- _ provide an adequate productive land base to support a 50,000 m³ community 15 year non-renewable forest licence (this was the original assumption at the time of the original identification);
- _ not conflict with the current development and viability of the small business program nor substantially threaten existing program investments (five year development plans, access roads etc.); and,

- _ include deferred or contentious areas on the premise that under community forest goals and objectives, that the community might be the best agent through which to manage these areas and free up some of their AAC contribution.³⁴

Residents of the Islands expressed a range of views on candidate areas. For example, individuals suggested that candidate areas for a community forest should:

- _ include a sufficient area of productive forest landbase, with representative timber and resource values, that will be viable and satisfy the basic principles of *The ICSI Consensus*;
- _ be close and accessible to the communities to promote a sense of ownership of the forest (Ideally there should be part of the community forest close to each community with the potential to provide employment and enjoyment opportunities for that community);
- _ include some of the contentious areas where the community can demonstrate innovative and superior management according to community values and priorities in these areas (i.e. Tlell River, Queen Charlotte Watershed);
- _ include some of the deferred areas referred to in *The ICSI Consensus* but not with the expectation that the CFO should be expected to resolve broad land use questions. This would be impractical and place undue stress, cost, and internal pressure on the CFO. Some people feel that the contentious areas should be included only on the basis that land use issues are resolved through existing processes (Haida land claims or interim measures, and/or through the LRMP). If these processes result in a land use plan that identifies the candidate areas as open for resource development, then the CFO would begin operating in them, otherwise it would not (eg. West Coast Duu Guusd, Jalun River).
- _ Reflect Island Community preferences and priorities (i.e. inclusion of the Tlell River / East Coast area, and an area of forest on Moresby Island accessible to Sandspit);
- _ Not restrict the viability and continued operation of SBFEP.

In the end, six candidate areas were considered for the purposes of this study. They are:

- _ Area 1: North Coast - Jalun River - Duu Guusd
- _ Area 2: Masset - Port Clements and south to the Yakoun (opportunity woods)
- _ Area 4: West Coast - Otard River to Seal Inlet - Duu Guusd
- _ Area 5: Skidegate / Queen Charlotte Watershed - Honna
- _ Area 7: West Coast - Bottle Inlet
- _ Area 8: Tlell River - East Coast Graham

The current list is based on an original list of seven areas that were identified by the MoF Queen Charlotte Forest District as potential community forest licence operating areas (Candidate areas are shown on a key map in Appendix 8) and for which a timber supply estimate was conducted. The original list included three areas within TFL 39 that have been dropped for the interim:

- _ Area 3: Masset Inlet west of Collinson Point

³⁴ Because the deferred areas have not been removed from the AAC determination, they are still contributing to the level of cut that is currently being concentrated in the non-contentious parts of the TSA. The Ministry is anxious to spread the cut around and take rate of cut pressure off the existing areas such that they may be developed in a more sustainable manner and won't become too constrained by watershed rate of cut, adjacency, greenup, riparian issues, and/or other considerations.

- _ Area 6: Gray Bay / Cumshewa Head
- _ Area 7: Peel Inlet west along the height of land, south of Kuper Inlet and Moore Channel to the height of land between Douglas Inlet and Bottle Inlet.

These three areas were deleted from the list of candidate areas on the basis that the inclusion of TFL lands within the community forest was premature and requires further study and discussion between the MoF and the community forest licence holder. Furthermore, as discussed in Section 2, the MoF does not intend to make the 5% take back volume from TFL 39 available to a community forest until the CFO is well established.

The eighth candidate area, (Tlell River Watershed) was included in this feasibility study by the MoF Queen Charlotte District at the request of ICSI. It should be noted that the candidate area defined by the MoF Queen Charlotte District does not extend to the east coast of Graham Island (i.e. Lawn Hill and points south are not included.) The timber supply estimate that was conducted for this area was restricted to the watershed portions within the TSA only.

Sandspit residents have indicated their preference for a community forest site near their community. This does not appear feasible at this time given the lack of unallocated TSA lands on northern Moresby Island. Bottle Inlet, on the west coast, is the only potential candidate area on Moresby and is included in the study but it has only limited possibilities as discussed later on in this section. Northern Moresby Island has some excellent long term potential for community forestry given extensive productive areas with advanced second growth. TSA areas in the vicinity of Moresby Lake, and area take backs resulting from the transfer of TFL 47 were suggested as possibilities. The identification of these options however is beyond the scope of this study and requires further discussion.

5.1 Assessment Context

As discussed in earlier sections, the final determination of where the community forest area will be determined by the MoF following a negotiation process between the Forest District, the existing TSA licence holders (Husby, Naden, Timberwest, Sitkana), the SBFEP, the Haida forestry committee and the community interest. The broader land use issues are to be dealt with through the MOU, the LRMP process and interim measures agreed on between the Haida Nation and the MoF pending resolution of Haida land claims.

In that context, the basis under which this study considered the candidate areas has been limited to an assessment of :

- _ an overview of the general characteristics, resource profile, operating costs, issues, constraints, and suitability of each area; and,
- _ a review of the technical assumptions and applicability of the timber supply estimates provided for each area by the Ministry of Forests;

5.2 Overview Assessment

The following section provides a brief overview assessment of each candidate area. The purpose of the assessment is to highlight the general issues, constraints and opportunities associated with each one. A summary table of the candidate area assessment data is presented at the end of this section in Table 5-1.

5.2.1 Candidate Area 1- Jalun River

Candidate area #1 is located in easy rolling terrain in the upper Jalun River watershed on the northwest coast of Graham Island and occurs within the CHN designated Duu Guusd Haida Protected Area. The Jalun River flows northward from Jalun Lake into Dixon Entrance. Although accessible from the Naden Harbour road system, the area is remote and strictly a camp show.

The area is forested with mature timber that is mostly hemlock with some spruce and cedar. The area occurs mostly within the low elevation, submontane, wet hypermaritime variant of the coastal western hemlock biogeoclimatic zone and would have an above average growth potential of an average of 6 m³/ha/yr with few regeneration problems. The opportunity to grow trees faster would provide for some intensive management opportunities but the remote location would make logistics more difficult.

5.2.2 Candidate Area 2 - Masset - Port Clements

Candidate area #2 is located in flat to gently rolling terrain east of Masset Sound to the Naikoon Park boundary and south of Port Clements along the TFL boundary. The area is readily road accessible from the Island highway and to the communities of Old Massett, Masset, and Port Clements however road development is generally constrained by the availability of ballast.

The vast area is sparsely forested and contains large areas of forest bogs and non-merchantable timber restricted by shallow soils and poor drainage. Most of the merchantable forests are predominantly low volume western red cedar forests known as “opportunity woods”. Some western hemlock and sitka spruce and minor volumes of lodgepole pine are mixed with the older cedar stands. These low elevation forests, of the submontane wet hypermaritime variant of the coastal western hemlock biogeoclimatic zone have poor growth potential at an average of 3m³/ha/yr and lots of regeneration problems related to restocking western red cedar on these sites.

Harvesting over the past 20 years has and converted 5% of the productive Crown forest area (or 30% of the timber harvesting land base)³⁵ to immature classes and may imply significant spatial and ecological constraints on remaining merchantable timber. This would require further spatial analysis of the remaining timber harvesting land base. The best potential appears to exist south of Port Clements along the TFL boundary (Farm).

Since stable employment is a community priority, the fact this area provides low to marginal economic return may be offset by providing long term silviculture, stand tending, and non-timber forest product opportunities. The smaller wood size and prevalence of pole size material could provide opportunities to develop non-traditional harvesting methods that may be more labor intensive but could offset the high cost of conventional harvesting methods.

5.2.3 Candidate Area 4 - West Coast - Otard River to Seal Inlet -Duu Guusd

Candidate area #4 is located on the central west coast of Graham Island with the Otard River in the north and Seal Inlet in the south. The occurs within the CHN designated Duu Guusd Haida Protected Area. The sprawling, slightly mountainous area is dissected by numerous river

³⁵ Queen Charlotte Islands Community Forest Licence Timber Supply Estimate, Internal Memorandum, M. Mana September 20, 1997

drainages and by the Krajina Ecological Reserve. The shorelines, beaches, and anchorages have high visual quality values, Haida spiritual values, and strong ecotourism potential.

The area consists of mature old growth forests made up of high quality western hemlock with minor volumes of good western red cedar and sitka spruce. The area occurs within the submontane and montane very wet hypermaritime variants of the coastal western hemlock biogeoclimatic zone and would have an above average growth of 6m³/ha/yr and relatively easy regeneration.

Access is difficult and by barge only. Very little harvesting has been done in the past so any activity would require the development and maintenance of a road network. The very wet hypermaritime subzone is challenging for both road building and harvesting systems. The remoteness would lend itself to a camp situation but there would be limited access during the winter months. The biggest opportunity is high quality timber that can be harvested economically with conventional equipment and/or helicopter.

The ICSI Consensus has suggested that the area be excluded from the AAC land base with a ten-year moratorium on industrial development, and that land use be determined by the Haida people. The area could be included in the community forest to be managed for Haida / aboriginal forest use and/or under scientific panel type management objectives and restrictions. Despite the remoteness from the communities, the advantages of including this contentious area within a community forest would be to maintain planning control and setting of community objectives and full representation of the HG/QCI timber value profile and wilderness recreation development potential.

5.2.4 Candidate Area 5 - Skidegate/Queen Charlotte Watershed/ Honna

Candidate area # 5 encompasses the Queen Charlotte City and Skidegate watersheds and height of land in an area that extends from the Skidegate Reserve boundary on the east to the Honna drainage on the west. The area is readily accessible to both communities and includes an extensive road network in the Honnah drainage.

The forests are primarily western hemlock, but contain some extremely valuable sitka spruce and western red cedar on highly productive sites and some yellow cypress on the height of land. The lower elevation submontane wet hypermaritime variant of the coastal western hemlock biogeoclimatic zone is highly productive with an average MAI of 6m³/ha/yr. The Honna River portions contain a large area of immature forest that could provide stand tending opportunities in the short term and commercial thinning in 20 to 30 years.

The watershed ecosystems behind the communities are environmentally sensitive and discussions about harvesting are controversial. With the use of alternative harvest systems and with good research on ecosystem succession, the possibility exists for small patch or single tree removal of high grade logs and the innovative use of strip cable systems. If a community forest area extends beyond the height of land and north to the TFL boundary, then the potential to use conventional systems in the Chinukundle creek watershed would also exist. This portion of the area is currently under the SBFEP five year development plan.

The close proximity to schools, the community, and tourists creates excellent opportunities to develop forest tours, demonstration forestry, or ecotourism. Most importantly, the close proximity to the community makes the area an obvious candidate for inclusion.

5.2.5 Candidate Area 7 - Bottle Inlet (West Coast)

Candidate area # 7 is located on the west coast of Moresby Island between Kootenay Inlet to the south and Englefield Bay to the North.

The forests are primarily western hemlock with minor western red cedar and sitka spruce but contain only 126 ha of operable timber. The remote nature, difficult access, operability, and the small volumes would require further investigation before a decision for inclusion in a community forest. The confirmation of accessible timber and logistics for removal would be critical factors. A typical west coast ecosystem with high rainfall makes road building and maintenance difficult but trees grow very well. Although the area is located on Moresby Island, it is no more accessible to Sandspit than it is to Queen Charlotte City.

5.2.6 Candidate Area 8 - Tlell River / East Coast Graham

Candidate Area # 8 is located on the east coast of Graham Island and comprises the area of the Tlell River watershed that is within the TSA³⁶. It contains the main tributary of the Tlell River and lower reaches of tributaries (Survey Creek) that cross into the TFL. It includes the ‘pontoons’ a large area of open wetlands in the upper reaches of the Tlell that are home to a small resident herd of Rocky Mountain Elk. The boundaries of the area are the same as those being considered under the current LRUP process. Road access is relatively easy from either the highway on the east coast or from the TFL to the west.

The productive forest land base is predominantly old growth dominated by western red cedar with western hemlock, lodgepole pine, and a very minor component of sitka spruce. The area occurs within the low elevation submontane wet hypermaritime variant of the coastal western hemlock biogeoclimatic zone and is characterized a low to moderate average productivity of 4.5m3/ha/yr but with high variability over the different ecosystems. Immature stands less than 100 yrs old cover less than 5% of the productive forest land base.

The ICSI Consensus requested an integrated watershed planning process be completed prior to any development and an LRUP process for the area has been ongoing. In addition the area has been identified as a Haida protected area by the CHN. A large variety of ecosystems cover the landscape making it a unique and exciting opportunity for integrated forest management. Without jeopardizing future land claim issues, this would be an ideal area to start the many conversations to resolve issues of best management practices for sensitive but highly productive area.

The close proximity to communities, gentle topography, strong willingness to experiment with alternate harvesting methods on more sensitive sites, and full partnership with First Nations make this one the most challenging and interesting sites to include in the community forest.

5.3 Determining a Community Forest Landbase

[This section still subject needs to further revision in the Final Report].

³⁶ To avoid confusion, it is recognized that the east coast of Graham Island is more than just the Tlell watershed and could broadly include the area bounded by Naikoon Park and Area #2 to the north, TFL 39 to the west, the Skidegate Reserve boundary and Area # 5 to the south and the shoreline of Hecate Strait to the east and also incorporating the Graham Island flats, a large area of older second growth created by fire to the west of Lawnhill. However at the present time, the candidate area under discussion and referred to in the analysis is limited to the watershed only.

5.3.1 General Community Forest Landbase and Volume Considerations

One of the main issues in assessing the feasibility of establishing a community forest within the defined candidate areas is the size of the forest land base required to support the assumed volume apportionment of 50,000m³. In fact the amount of area required could vary depending on the type of tenure the community forest ultimately acquires and the rate at which it wants to extract a given volume.

Since we are assuming a pre-determined apportionment of 50,000m³ (12.5% of TSA AAC) for the community forest, it is possible to work backwards for a rough estimate of the area needed. For example, if the community forest is located in a mixture of average TSA wood, it would need an area covering 12.5% of timber harvesting land base or 8000 ha of the TSA. This is assuming that the community wants to log like Husby and the MoF Small Business Program.

However, the community has indicated that they may not want to log this way and have raised two alternative issues that would affect either the land base needed or the rate of logging possible.

The first issue is related to the productive capacity of the land base or its 'long run sustainable yield'(LRSY). The community has so far indicated that it is uncomfortable with the rate of cut within the TSA and has asked that it be reduced immediately to LRSY levels (248,000m³) which are 62% of the current AAC³⁷ (400,000m³). If a similar policy were applied to an 8000 ha community forest with a conventional AAC of 50,000m³ then the CF would only be able to cut 62% of the volume or 31,000m³ in the area offered. If they wanted to cut 50,000m³ now but at LRSY, then the CF would need an area 38% larger or 11047 ha.

The second issue has similar implications. The kinds of harvesting ideas and methods that the community supports appear to suggest a lighter-on-the-land approach with selective cutting and other alternative harvesting systems being the primary objective. This may likewise require a larger land base to achieve. Furthermore, if the community forest areas awarded are areas like the watersheds behind Queen Charlotte City and the Tlell River, then these areas are likely to have higher than average constraints when compared to the rest of the TSA. Therefore if 8000 ha of representative TSA lands are offered, then the implications for the CF are that they would have to cut less in the area given, or have more area to maintain a fixed level of 50,000 m³ per year.

Given the already constrained wood supply in the TSA, the Ministry of Forests is unlikely to offer more area so cutting less in the initial stages would happen if a fixed area is offered. The overall implication is that if the MoF offers the community forest an area based on a conventional volume apportionment, it is likely that the community would end up cutting less than the apportioned volume due to internal policies. Notwithstanding, the reductions used by the MoF to arrive at the productive forest area are somewhat conservative and alternate systems such as selective helicopter logging of sensitive areas or blowdown could fully offset any of the potential reductions anticipated.

Another way to estimate what size of community forest land base would be required to support an LRSY AAC of 50,000m³.

³⁷ The current AAC for the TSA is 400,000m³ of conventional harvest based on 64,045ha of timber harvesting land base plus 75,000m³ of partition wood to come from an additional 13,000ha of low productivity cedar stands. The illustrations being used in this discussion are based on the conventional portion only although it is assumed that if a community forest were established that it would be allocated a proportion its cut from the partition wood.

If the area selected is representative of the TSA, it is assumed that it will support on average 4-5 m³ per hectare of growth per year with not much effort other than basic silviculture. This may be conservative and could be greater if intensive forest management is practiced. A rough check of this assumption can be done by taking the LRSY of 248,000 m³ and dividing it by the timber harvesting land base of the TSA (60,045) hectares which yields 4.1m³/ha/yr.

Therefore to support a long-run harvest of 50,000 m³ approximately 12,000 hectares of productive forest area would be needed at an MAI of 4m³/ha/yr. At 5m³/ha/yr, 10,000 hectares of productive forest land or 1/6 of the TSA would be required.

These scenarios are simplifications but serve to illustrate the implications of different community approaches to volume and landbase requirements.

5.3.2 Candidate Area Timber Supply Estimates

The land base information used to provide the resource information and timber supply estimates for each of the candidate areas was derived from the provincial inventory for TSA 25 and compiled by Myles Mana, R.P.F., Timber Supply Forester for the Vancouver Forest Region. The assumptions described in the business case analysis are based on this information. Detailed summary tables showing timber harvesting land base and volume data by species type, site index, and age class for each candidate area are included in the Appendix 5. Also included in Appendix 5 are the assumptions used in the timber supply estimates for each area.

The timber supply estimate describes both the productive forest landbase (gross minus non productive rock, roads and water) and the timber harvesting land base for each candidate area. The timber harvesting landbase is the productive forest landbase net of a long list of area exclusions including an additional 250-hectare area reduction for culturally modified trees, and a further 5% reduction for Forest Practices Code riparian reserves.

While concern is often expressed about the accuracy of the inventory, the more significant issue is the exclusions and reductions. In our opinion, the **mature** inventory of all candidate areas taken together is technically sound and reasonably accurate. Since the mature timber cut at 50,000 m³ per year will take 80 years to harvest, there is plenty of time to study the growth of young forests and provide new estimates for their mean annual increment (MAI). Given the ever-changing complexity of factors that determine the operating forest area, the community should focus on the “big picture” and not get bogged down in the details of forest inventory and detailed site productivity.

Similarly, while issues of annual allowable cut, rotation ages, mean annual increment, and growth and yield of young forests are important, the emphasis needs to be weighed against other community values such as the forests proximity to existing communities and the availability of labor intensive year round employment. For example, low site difficult to regenerate cedar sites between Masset and Port Clements may be more desirable and useful to the community forest than high site, naturally regenerating hemlock/spruce sites on the west coast. Furthermore, a combination of areas totaling 10,000 ha of net operable area is likely to have enough diversity to satisfy almost any scenario that might be proposed. Another difficulty in choosing the so-called best or better candidate areas is that they may be ideally suited to past or present market conditions, but the future of the global marketplace is more difficult to predict.

The timber supply estimate and data provided by the MoF suggests that “If non-timber resource management concerns are much higher than average, the sustainable long term rate of harvest

will be reduced accordingly” and “conversely, if actual MAI is higher than previously estimated, (e.g. due to underestimated site productivity estimates in older stands) the sustainable long term rate of harvest will be higher than estimated.” Both of these scenarios further complicate a definitive economic analysis but do not in any way invalidate the analysis. Our method of analysis provides the community with a template or a blueprint to evaluate various scenarios that might subsequently be presented.

For the purposes of the business case analysis long term harvest levels were assumed based on area specific site productivity averages.

Table 5-1: Summary Table of Candidate Area Assessment [to be completed]

	Jalun River	Masset/Port	Duu Guusd	QC City Watershed	Tlell River
General					
Total land area ^a	8,243	23,243	30,027	n/a	20,437
Timber harvesting land base ^a	1,308	3,716	3,200	2,388	6,500
Community					
Proximity/Access					
Visibility					
Community values					
Community support					
Resources (non-timber)					
Biodiversity					
Recreation potential	low	moderate	high (along the water)	high visual	moderate
mushroom and greenery	low	moderate	low	moderate mushrooms/ low greenery	moderate
Opportunities					
Constraints					
Timber Resource					
Standing inventory					
Dominant species/age profile					
Harvest history					
Long term Harvest Rate ^a	5,560	15,790	13,240	9,940	23,960
Opportunities					
Constraints					
Economic Potential					
Average wood value ^c (\$/m ³)	\$ 137	\$ 83.50	\$ 130	\$ 117	\$ 108
Average costs ^c (\$/m ³)	\$ 121	\$ 88	\$ 121	\$ 106	\$ 106
Capitalized net present value ^e	\$ 1,052,400	\$ (610,200)	\$ 999,800	\$ 897,000	\$ 272,000

Notes:

1. Area statistics from the Ministry of Forests
2. from memorandum "Timber supply estimate for community forest license operating areas" from Myles Mana, Timber Supply Forester, Vancouver Region (30 September 1997).
3. Estimated as the product of the timber harvesting land base and a conservative annual average growth per hectare of 4.25 cubic metres.
4. Estimated as the Vancouver log price over the past 4 years multiplied by log grades in the harvest profile less barging costs of \$13 cubic metre.
5. Average variable costs, includes stumpage payment and excludes fixed administration costs.
6. Computed as the annual revenue less costs in the first 15 years discounted at 8%. Roughly equals the current market value of the area as a community forest.

6. Business Case Analysis

The purpose of this section is to test the financial viability of a community forest operated in a manner that generally meets the strategic objectives as expressed by the Island Community in *The ICSI Consensus*, the MOU, and in our discussions with community residents. The analysis is necessarily strategic, as many of the key elements of a community forest that establish expenditure and revenue parameters are not well defined at this time. For example, the operating area, specific tenure arrangements, and the organization's operating regime have not been determined. Hence, the quantitative assessment is built on representative values and reasonable assumptions that should reliably indicate the financial robustness of the community forest. Our findings are appropriate to the state of planning for the I community forest concept in that it will assist fundamental decisions regarding the direction and scale a financially sustainable community forest could take.

The following section discusses the revenue and expenditure assumptions and develops a pro forma cash flow assessment of the proposed operating model. The final section presents the findings of sensitivity analysis and considers other key elements not addressed in the quantitative analysis.

6.1 Discussion of Components of Business Case Analysis

The financial analysis embodies the operating model described in section 7. Revenue and expenditure projections corresponding to that operating model were developed to conduct a preliminary cash flow analysis of the concept. The assumptions and methods used to generate the forecasts are discussed in the following.

6.1.1 Community Forest Tenure Area and Harvest level

At the time of writing, several candidate areas have been identified by the MoF District Office as available for the community forest. The characteristics of these areas were presented in the preceding section. From a financial perspective, the species profile of each area implies particular log values hence revenue implications, and the area characteristics have associated with them cost factors. As well, the areas have different potential for the management and sale of non-timber forest products such as mushrooms and greenery, and other forest values such as recreation.

The harvest level of each of the candidate areas is reported in the Summary Table of Candidate Areas (see Section 5). At this time, there has been no decision regarding the preferred candidate area(s) that would constitute the community forest. The MOU provides some firm guidance in that a harvest volume of some 50,000 m³ is available initially for the community forest, which may increase to around 100,000 m³ at some later time.. For the purposes of the business case assessment, two scenarios are proposed; Scenario 1 consists of the three relatively accessible areas (i.e. QC watershed, Tlell River, and Masset/Port Clements); Scenario 2 adds two west coast candidate areas (Duu Guusd and Bottle Point). For both scenarios, the aggregate harvest level is fixed at 50,000 m³.

The financial analysis embodies the operating model summarized above and several other key assumptions. These assumptions are presented first, followed by a presentation of the preliminary financial analysis.

6.1.2 Community Forest Revenue Elements

The following are potential sources of revenue from the community forest.

6.1.2.1 Revenue from the Sale of Timber Harvest

The magnitude of the community forest revenue is a key factor in determining its financial viability. There are various strategies the CFB may choose to derive revenue from the timber harvest. Examples include auctioning the standing timber, contracting the harvest and auctioning the logs, selling the logs on a local log market, processing the logs on the Islands and obtaining residual value from the sale of product, and so on. Presently, the accepted practice for valuing on-Islands logs is with reference to the prevailing price on the Vancouver log market, less the costs of transportation, insurance and shrinkage (currently amounting to about \$13 per cubic metre). The Vancouver log price is also monitored by the MoF and is used in the deriving the stumpage charge. For the purposes of the business case analysis, it is assumed that the Vancouver log price will continue to be the standard for valuing on-island logs.

Vancouver log prices vary widely among the species and grades, as well as from month to month due to changing market conditions. To account for this variation, average log prices were estimated as the annual average prices over the last 4 years, which includes highs and lows in the market cycle. The average values by species and grade are summarized in Table 6-1. The variation in price among log grades is clearly evident in the table. With respect to the variation of log price for a given log grade, in general the lowest price was about 20% below the average value and the highest log prices were generally about 30% higher than the average value. The impact of these relative price extremes on the financial viability of the community forest will be seen in a sensitivity test presented later.

Table 6-1 Summary of Average Values (1997-1994)

Grade	Cedar	Spruce	Cypress	Hemlock
D	\$ 272	\$ 828	\$ 630	\$ 297
E	\$ -	\$ 701	\$ -	\$ -
F	\$ 239	\$ 648	\$ 475	\$ 224
G	\$ -	\$ 486	\$ -	\$ -
H	\$ 152	\$ 261	\$ 302	\$ 140
I	\$ 118	\$ 202	\$ 194	\$ 108
J	\$ 97	\$ 83	\$ 91	\$ 77
K	\$ 134	\$ -	\$ -	\$ -
L	\$ 116	\$ -	\$ -	\$ -
M	\$ 82	\$ -	\$ -	\$ -
U	\$ 52	\$ 83	\$ 64	\$ 61
X	\$ 41	\$ 59	\$ 41	\$ 56
Y	\$ 26	\$ 56	\$ 26	\$ 56

Source: Ministry of Forest, Log and Lumber Selling Price System

The average prices report above were matched with the typical harvest profile for each of the areas as reported to us by the MoF from specific sales (summarized in Appendix 6). This

produced an average price per cubic metre of harvest from the respective area. From this, transportation costs are removed to derive the on-island log value which is reported in Table 6-2.

Table 6-2 Average Estimated Log Values by Candidate Area

Area	\$/m3
Jalan River	\$ 136.99
Masset/Port Clements	\$ 83.47
Duu Guusd	\$ 129.95
QC City Watershed	\$ 117.20
Bottle Point	\$ 135.76
Tlell River	\$ 107.66

It is important to note that to the extent the historic harvest profile does not correspond to the profile of the remaining forest, the value represented here may be higher or lower than what might be achieved. In the case of the Masset/Port Clements area, relatively little data was available so the estimate might be subject to greater error than that for the other areas.

6.1.2.2 Potential Revenue from the Sale of Non-Timber Forest Products

The production of non-timber forest products (NTFP), such as mushrooms, floral greens, Christmas ornaments (such as boughs and wreath), and taxol (from Yew trees) may be commercially viable in several of the candidate areas, as well as providing employment opportunities to Islands residents. Mushroom harvesting (Chanterelle, King Belitus) regularly occurs in the fall. A preliminary estimate indicates about 100 people (not all Islands residents) may be involved in this activity island wide, with the total value of the production approaching \$ 1 million. Reasonable mushroom potential is felt to exist in the QCC Watershed, and the Tlell River candidate areas. There is also an abundance of floral greenery plants in these areas, but the commercial viability of this product on the Islands is not well established. The NTFP potential of the other candidate areas is generally thought to be low.

Specific management for NTFPs is in its early stages of development. Most areas where harvest occurs in BC, intensive management is not practiced. The minimum management level is access control. If we presume that the community forest tenure confirms the right to exclusive use of the NTFPs in the tenured area, the CFO may decide to pay individuals to harvest the product, or license individuals to harvest the NTFPs for their own sale. At this time we have no basis for projecting how much revenue this opportunity could support. Also, it is noted that (at the minimum) access management costs will be incurred to ensure the crop is available. Further work is required to determine the revenue potential of NTFPs to the community forest.

6.1.2.3 Potential Revenue from the Licensing of Other Activities

At the present time, the various forest tenures give the holder specified rights to timber harvest. However, this is not necessarily exclusive use of the land area, as other resource users may hold tenure to other resources, or activities on the land base (i.e. grazing, mineral exploration, guide hunting/fishing.) It may be the case that the terms of the community forest tenure will confer to the community exclusive use of the tenure area. If this is the case, the CFO may considering promoting/licensing other compatible activities e.g. guiding activities, eco-tourist which could

generate additional revenue . Future work could better define the revenue and cost potential if the community forest tenure does allow for this possibility.

6.1.3 Community Forest Cost Elements

The following costs can be anticipated to operate the community forest organization.

6.1.3.1 Fixed Administration Costs

A distinction is made between administration costs that are essentially constant regardless of the level of harvest (termed fixed costs) and administrative costs that are related to harvest rate/level (termed variable costs). The administrative structure was discussed in Section 4. The fixed cost share of administrative costs are shown in Table 6-3 below:

Table 6-3 Fixed Administrative Costs to Operate the CFO

Item	Cost
3 senior staff at average salary \$ 70,000	\$210,000
1 office assistant @ \$30,000	\$30,000
office rent(includes utilities) @ 800/mo.	\$9,600
Office equipment (furniture, computers)	\$7,200
office supplies and phones	\$7,200
operating 2 trucks	\$10,000
depreciation on 2 trucks	\$20,000
Total costs	\$294,000

For the purposes of the analysis, the initial fixed administrative cost is rounded to \$300,000. The administrative costs are similar in magnitude (i.e. \$/m³) to the experience of other operating community forests in BC such as the Revelstoke³⁸, and the estimated costs of operating the Prince George community forest. It is assumed that this cost will be commenced at start-up.

Variable administrative costs are assumed to range from \$11 to \$15 per cubic metre. This includes planning, engineering, crew costs and a remoteness factor. The latter two elements account for the higher costs attributed to Honna and the west cost. In aggregate, the community forest administrative costs assumed here are likely somewhat higher than would be the case for a logging company operating on a similar land base.³⁹

6.1.3.2 Variable Cost Related to Timber Harvesting and Forest Management

The total cost of timber production within any of the candidate areas, and among the candidate areas is site specific and highly variable. In general, the east coast areas are lower cost relative to

³⁸ The permanent staff of the Revelstoke Community Forest Corporation (RCFC) is currently 5 persons with a total administration budget of \$660,000. They manage a TFL with an annual harvest of 90,000 cubic metres. (L. Thale, RCFC, pers. comm., March 1998).

³⁹ By way of comparison, the Revelstoke Community Forest has budgeted \$2.03 million for planning activities, or \$22.50 per cubic metre, for 1998 (L.Thale, RCFC, pers. comm., March 1998).

most west coast sites. For example, a representative total cost of timber production in the Masset/Port Clement area may range from \$ 66 to \$78 per cubic metre, while on the west coast the range is between \$ 86 to \$114 per cubic metre. For the most part this can be attributed to the generally flatter terrain which reduces the cost of building roads and harvesting costs, and easier access. There are exceptions however, which gives rise to the cost ranges reported in the table. For example, where rock ballast might be required for road building on the east coast, road costs may approach those typical of the west coast. While site conditions influence costs, the proximity to environmentally sensitive areas, the existence of cultural resources, and the requirements set out by the MoF also have a material impact on total production costs.

It is important to recognize the real variation in costs, our objective here is to develop costs that are representative of the candidate area. Information was gathered from independent loggers, major licensees and the MoF District Office. The latter provided the appraised costs on actual sales which were felt to be representative. There was consensus that representative costs could be derived for 3 regions: the east coast, west coast and the Honna. There was variation among the estimates based on the respective party's experience. A summary of cost estimates is presented in Table 6-4.

Table 6-4 Timber Production Cost Range (\$/m3)

Cost Element Area	East Coast	West Coast	Honna
Administration			
Variable (\$/m3)	\$ 11	\$ 15	\$ 12
Road construction \$/km	\$50,000 to 90,000	\$80,000 to 120,000	\$70,000 to 90,000
\$/m3	\$ 8-18	\$ 16-24	\$ 14 - 18
Road maintenance	\$ 2	\$ 4	\$ 3
Harvesting			
Falling	\$ 8	\$ 10-14	\$ 8.50-12
Yarding and sorting	\$ 7.50-10	\$ 7-23	\$ 8.50-12
Loading	\$ 5	\$ 5	\$ 5
Total	\$ 20.50 - 23	\$ 22 - 42	\$ 22 - 29
Transport (35 m3/truck)			
Cycle time(hr.)	2.5	2.75	2
Cost/hour	\$ 85	\$ 85	\$ 85
\$/m3	\$ 6.07	\$ 6.68	\$ 4.86
Scale/sort/boom	\$ 13	\$ 16	\$ 14
Silviculture costs	\$ 5.50	\$ 6.50	\$ 5.50
Total Cost Range @ Conventional Methods	\$ 66 -78	\$ 86 -114	\$ 74 -85
Representative Value	\$ 66	\$ 90	\$ 74
Community Forest Cost Premium	\$ 2	\$ 4	\$ 3
Total Cost (\$/m3)	\$ 68	\$ 94	\$ 77

As is evident in Table 6-4, for several components there was significant cost variation. Based on our discussions, a representative value was also derived. This is notionally a representative average value weighted by proportion of relatively high and low cost sites in the area. The estimates are reported in Table 6-4 to be \$66 per cubic metre for the east coast, \$90 for west coast areas, and \$74 areas in the Honna.

Finally, the costs are based on conventional logging systems and harvest volumes. Timber harvesting in the community forest may or may not conform to these practices, depending on future management decisions. While it is plausible to anticipate that the management objectives of the community forest might lead to higher costs, it is difficult to anticipate its magnitude. For stumpage cost appraisal purposes, MoF recognizes the higher unit costs associated with harvest volumes of less than 5,000 m³. This low volume additive factor ranges from \$5.00/m³ for volumes below 2,000m³, declining to zero at 5,000 m³⁴⁰. This provides a plausible order of magnitude for considering the potential effect of the community forest objectives on harvesting costs. On the assumption that the community forest cost impact would be in proportion to total harvesting costs, a community forest cost premium was estimated to add about 3% to the representative cost estimates presented in Table 6-4. The total timber harvesting costs for the respective areas is reported in the last line of Table 6-4.

6.1.3.3 Stumpage

It is not known at this time whether the community forest would face the same forest charges as industrial forest users, or forest charges that acknowledge the non-financial objectives embodied in community forest management as well as the increased costs which may ensue. This matter is expected to be clarified by the Minister of Forest in announcing the Community Forest Policy later this year. There are a number of forest taxation regimes available that could be applied. The different approaches may affect how a community forest is managed and how profitable it is. For example, a fee levied on a per hectare basis would encourage harvest to be at least a minimum level to recover the payment, while a fee levied on harvest does not pose this incentive. In addition to its basic structure, the magnitude of the charge is also important (i.e. the lower the fee the more profitable the community forest).

We expect that the community forest will compensate the Crown for the tenure, however we can only speculate at this time what the form and level this payment might take. In order to illustrate the potential significance of the payment on the financial performance of the CFO, the current stumpage regime applied to industrial forest operations is assumed. This we feel is the maximum community forests would be assessed for the use of Crown timber. British Columbia's stumpage system is complex. It is an administered system which is adjusted to changing market prices and production costs, among other things, on a site specific basis. Representative stumpage values were estimated based on the regional aggregation of candidate areas (i.e. east coast, west coast, Honna). The regional aggregates were estimated as the average stumpage charge assessed on small business sales (i.e. upset price) on representative sites in the areas over the period 1991 - 1997. The average values are shown in Table 6-5. (See Appendix 6 for calculation). It is noted that implicit in the estimate is the appraised cost of conventional logging operations, which are

⁴⁰ It is noted that a partial harvesting cost adjustment has been included in the Coast Appraisal Manual since May of 1997. The adjustment increases the tree to truck appraised cost by \$10.00 to \$12.00 per cubic meter. This adjustment was not included in the business case analysis as it is not known the extent to which the community forest would practice this method, and its effect on the stumpage payment.

likely lower cost than the corresponding costs of the community forest. This being the case, the stumpage payment would be relatively more onerous on the community forest.

Table 6-5 Average Stumpage Payments

Area	Average Stumpage Payment per m ³
East Coast areas	\$ 11.14
West Coast areas	\$ 23.77
Honna areas	\$ 21.19

6.2 Findings

The purpose of this initial business case analysis is to indicate whether the community forest might be expected to attain financial sustainability. This analysis is founded on the best information available to us and reasonable assumptions about the future. To the extent these assumptions are replaced by fact, such as the clear identification of community forest land base, the government announcing the forest fees that will apply to community forest tenure, and the like, the findings reported here may need to be reworked. The business case analysis also identifies the relative significance of the various components (i.e. harvest levels, costs and revenues) in promoting financial sustainability. The analysis should be considered a starting point, indicating the strategic directions the community might take to enhance the financial performance of the community forest.

As discussed earlier, two scenarios are presented to examine the financial sustainability of the community forest under alternative, plausible configurations. The first scenario is comprised of the three areas that are relatively assessable to communities (i.e. the areas identified as Masset/Port Clements, Tlell River, and Queen Charlotte City watershed). The findings of the respective scenarios is reported below.

6.2.1 Scenario 1 (East Coast Areas)

The findings of the business case analysis for the three east coast candidate areas is summarized in Table 6-6. During the first two years the community forest will establish itself, define its strategic objectives and undertake the necessary planning to commence operations. Once production begins in year 3 it is assumed that it will not reach full production until year 5. As indicated in Table 6-6, the CFO does not begin to generate positive cash flow during the Start-up (years 1 and 2) or in the Transition Phases (years 3 and 4). This suggests that the extent to which these stages can be compressed the more quickly the community forest would begin to generate positive cash flow. Strategies that might address the cash short fall in the initial periods could include log sales where approvals are readily available and special sales to artisans. In year 5 and thereafter at the full licensed volume, a positive net cash flow of \$190,000/yr. is estimated. This is not large relative to total revenues of \$5 million (i.e. 4%). About year 8, the positive cash flow is expected to equal the earlier net outflows, and the community forest “breaks even”. The net present value of \$ 672,000 is an estimate of the market value of the community forest licence prior to start-up. It is estimated as the stream of net revenue over a 15-year period (assumed to be the life of the tenure) discounted at an 8% interest rate. The latter is the interest rate on corporate bonds of similar risk.

The average net revenue is in the order of \$ 2.30 per cubic metre. This is a relatively small difference between two large numbers (i.e. total revenues less total costs). Hence relatively small variations in total revenues or costs will have a large impact on the net value and the likelihood of achieving long term financial sustainability. Another way to interpret this is that for much of the harvest profile, it is costing the community forest more to harvest it than the logs can be sold. The conclusion is that this scenario marginally attains financial sustainability.

Table 6-6 Business Case Analysis for Scenario 1 (East Coast Candidate Areas)

Year	1	2	3	4	5	6
Aggregate Harvest (m3)			15,000	30,000	50,000	50,000
Net log Revenue:						
Masset/Port Clements		\$ 279,157	\$ 558,314	\$ 930,524	\$ 930,524	\$ 930,524
QC City Watershed		\$ 493,239	\$ 986,477	\$ 1,644,128	\$ 1,644,128	\$ 1,644,128
Tlell River		\$ 801,739	\$ 1,603,478	\$ 2,672,464	\$ 2,672,464	\$ 2,672,464
Total Revenue		\$1,574,135	\$3,148,269	\$ 5,247,116	\$ 5,247,116	\$ 5,247,116
Total Expenditure						
Masset/Port Clements		\$ 267,361	\$ 534,722	\$ 891,204	\$ 891,204	\$ 891,204
QC City Watershed		\$ 426,662	\$ 853,324	\$ 1,422,206	\$ 1,422,206	\$ 1,422,206
Tlell River		\$ 732,679	\$ 1,465,358	\$ 2,442,264	\$ 2,442,264	\$ 2,442,264
Fixed Admin. Cost	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Total Costs	\$ 300,000	\$ 300,000	\$ 1,726,702	\$ 3,153,404	\$ 5,055,674	\$ 5,055,674
Net Revenue	\$ (300,000)	\$ (300,000)	\$ (152,568)	\$ (5,135)	\$ 191,442	\$ 191,442
Cumulative Revenue	\$ (300,000)	\$ (600,000)	\$ (752,568)	\$ (757,703)	\$ (566,261)	\$ (374,820)
Net Present Value at 8%	\$672,270					
Average Net per m3	\$2.27					
Payback Period	year 8					

Table 6-7 Business Case Analysis for Scenario 2 (All Candidate Areas)

Year	1	2	3	4	5	6
Aggregate Harvest	-	-	15,000	30,000	50,000	50,000
Net Log Revenue						
Masset/Port Cl.			\$ 162,767	\$ 325,533	\$ 542,555	\$ 542,555
QC City Watershed			\$ 493,239	\$ 986,477	\$ 1,644,128	\$ 1,644,128
Tlell River			\$ 467,402	\$ 934,805	\$ 1,558,008	\$ 1,558,008
Duu Guusd			\$ 555,318	\$ 1,110,635	\$ 1,851,058	\$ 1,851,058
Kootenay Inlet			\$ 30,789	\$ 61,579	\$ 102,631	\$ 102,631
Total Revenue			\$ 1,709,514	\$ 3,419,029	\$ 5,698,381	\$ 5,698,381
Total Expenditure						
Masset/Port Clements			\$ 155,889	\$ 311,777	\$ 519,629	\$ 519,629
QC City Watershed			\$ 426,662	\$ 853,324	\$ 1,422,206	\$ 1,422,206
Tlell River			\$ 427,141	\$ 854,283	\$ 1,423,804	\$ 1,423,804
Duu Guusd			\$ 503,480	\$ 1,006,961	\$ 1,678,268	\$ 1,678,268
Kootenay Inlet			\$ 26,722	\$ 53,444	\$ 89,074	\$ 89,074
Subtotal Costs			\$ 1,539,894	\$ 3,079,789	\$ 5,132,982	\$ 5,132,982
Fixed Admin. Cost	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Total Costs	\$ 300,000	\$ 300,000	\$ 1,839,894	\$ 3,379,789	\$ 5,432,982	\$ 5,432,982
Net Revenue	\$ (300,000)	\$ (300,000)	\$ (130,380)	\$ 39,240	\$ 265,399	\$ 265,399
Cumulative Revenue	\$ (300,000)	\$ (600,000)	\$ (730,380)	\$ (691,141)	\$ (425,741)	\$ (160,342)
Net Present Value at 8%	\$1,145,646					
Average Net per m3	\$ 3.74					
Payback Period	year 7					

1.1

6.2.2 Scenario 2 (All Candidate Areas)

The business case assessment of Scenario 2 is summarized in Table 6-7. The start-up and transition phases follow the same pattern as was the case for Scenario 1. The harvest volumes assumed in this scenario are shown in Table 6-7.

Table 6-7 Estimated Harvest Volumes by Candidate Area

Candidate Area	Harvest Volumes
Port/Masset	6,500
Duu Guusd	14,244
QCI Watershed	14,028
Bottle Point	756
Tlell River	14,472
Total Volume	50,000

Although the west coast candidate areas are relatively more costly to operate, the wood value more than compensates, such that the CFO breaks even 1 year sooner (7 years) and has a slightly higher net margin of \$3.74/m³. Nevertheless, net revenue of \$265,000 relative to total revenues of \$5.7 million is not large. In other words, the addition of the west coast areas enhances the net cash flow, but financial sustainability remains very sensitive to small changes in revenue and costs.

Several sensitivity tests are discussed below which further examines financial sustainability to key operating assumptions and their implications.

6.3 Sensitivity Tests and Other Considerations

The findings of the business case analysis are based on the expectation of future events and incomplete information with respect to likely harvest profile and harvesting costs, harvest level, log prices, and how the Community Forest might organize itself. Informed opinion may vary with respect to the magnitude of values adopted. Hence it is important to understand how the results might be affected if other assumptions were adopted. The sensitivity of the analysis to changes in these values is illustrated in Figure 6-1. An indicator of the Community Forest financial sustainability is the average net value per meter, where a negative net value is not sustainable. The sensitivity tests are reported for Scenario 2 and a similar pattern is valid for Scenario 1.

Figure 6-1 Scenario 2 Sensitivity to Key Variables

The sensitivity tests were conducted by making $\pm 10\%$ and $\pm 20\%$ changes in the particular variable and recording the resulting net value, while holding all other variables to Scenario 2 values. For example, a 10% increase in the harvest volume (10% increase in all candidate areas) increases the net value to \$ 5.12 m3, and 20% increase raises the net to \$ 6.21. The resulting values for each of the variables are connected by a line. A line sloping up from right to left indicates that increases in that variable also increases the net value (e.g. log price, harvest level). Conversely, a line that is sloping down from right to left indicates that increases in that variable reduces the net value (e.g. variable costs, stumpage). The steeper the line, the greater sensitivity there is to changes in the particular value. The figure indicates that the CF is most sensitive to variable costs and log prices, and less sensitive to changes in the harvest level, the stumpage rate. The implications of the sensitivity tests are discussed further below.

6.3.1.1 Sensitivity to Log Prices

The average log prices over the last four years were used in the base case analysis. However, it was noted that during that period log prices had ranged from 20% below the average value to 30% above. This provided a range for testing the financial sustainability of the CFO to changing prices. As indicated in Figure 6-1, an aggregate price decline of 3-4% erases the CFO positive margin. Price declines in excess of this lead to growing negative margins. Similarly, higher than average prices enhance the profitability of the CFO substantially. The degree of this sensitivity clearly shows the potential advantage of maintaining a flexible harvest control which would enable the CFO to take advantage of rising log prices and minimize its loses during market lows. This may not stabilize employment, but it does stabilize CFO revenue. An increase in the proportion of higher grade logs in the harvest profile would have a similar effect as rising prices.

A community objective is to promote on-island processing of the harvest. A possible strategy the CFO might consider to promote this is to offer logs at a discount to on-Islands processors. This sensitivity analysis suggests that the CFO would have limited scope to offer a discount during much of the price cycle and maintain a positive margin. In fact, there is less latitude than is indicated in Figure 6-1 because the sensitivity test recognized that the CFO's stumpage payment would rise and fall with revenue. If the CFO were subject to the current stumpage system, the

stumpage payment would be based on the Vancouver log price (less transport), however it would not collect that revenue if it were discounting logs to on-island processors. Under this circumstance, the community forest net value goes to zero more rapidly than is suggested in the sensitivity test.

6.3.1.2 Sensitivity to Fixed and Variable Costs

The basic model assumes high proportion of variable costs, with the only fixed costs being administration. This presumes an operation model where the CFO contracts out most of the forestry work and doesn't own major pieces of equipment. That is, the CFO is relatively debt free. Because fixed costs are a relatively small proportion of total costs (about 5%), changes in this variable do not have a material impact. Conversely, the level of the variable cost will greatly influence whether the CFO is financially sustainable. This suggests that the CFO's capacity to pursue objectives that increase costs is quite limited beyond those assumed in the representative cost assumptions. The CFO will need to put in place effective cost controls and management policies. As is clearly evident in the survey of costs, there are sites in all of the candidate areas where the aggregate costs exceed those assumed in this business case analysis.

6.3.1.3 Sensitivity to the Harvest Level

The sensitivity analysis indicates that the CFO is not particularly sensitive to changing harvest volume. This is a consequence of our assumption that most of the planning and production related activities would be contracted out. Consequently, as harvest volumes increase or decrease, so do costs and revenues with only a marginal impact on the net margin. In spite of this relative insensitivity, the analysis indicates that the smallest harvest that would support the CFO discussed in this report is around 40,000 m³. Increasing harvest volume increases the net margin. A substantial harvest volume increase (to say 100,000m³) would call for an increase in fixed costs, but the net value would increase (provided the log revenue exceeds costs).

6.4 Promotion of the HG/QCI Wood Manufacturing Activity

Historically, less than six percent of the timber harvested on the Islands is processed there. Most of it is barged south as round logs to primary breakdown plants. Furthermore, a recent survey found that most of the wood sold at the wholesale (for further processing) and retail levels on the Islands is delivered from off the Islands. There are a number of factors that collectively contribute to this circumstance, including:

- _ small local market;
- _ high cost of transporting goods, materials, and products to/from the island;
- _ limited energy capacity;
- _ limit of appropriate skilled labour force; and.
- _ erratic timber supply.

Presently there are two relatively large primary breakdown mills on the island, Adfam Enterprises Ltd. and QCI Sawmills. Both mills were established under non-renewable forest licenses which expired in June of 1994. At the time of the February interviews the Adfam mill was not operating, and the QCI mill had focused on log homes manufacturing. There were also some 14 micro-processors operating intermittently. Value-added operations are generally defined as ones that further process lumber from primary breakdown plants. Little of this presently occurs. It is restricted to specialty runs at the primary mills and specialty orders to contractors. Typically kiln

dried lumber is required for value added products and there is little drying capacity on the Islands. There are also a number of artisans. The on-Islands log demand by sawmills and other users is comprised of nearly 75% cedar logs.

The CFO can play a role in assisting the further expansion of on-Islands processing. It can do so by, for example entering into long term supply contracts with Islands processors. However, its direct assistance is fairly limited given the relatively small volume it can potentially make available (i.e. 50,000 m³, with a fraction of this being cedar) Its influence and impact would expand if the CFO were able to generate larger volumes.

The sensitivity analysis indicates that the financial viability of the CFO is very sensitive to decline in log values. The CFO will have limited financial ability sell logs at a discount to the price it could obtain in its highest valued alternative market (e.g. Vancouver log price less transport).

6.5 On-Island Log Market

Where there is sufficient volume of logs, and a sufficient level of buyers, a log market can be an efficient mechanism for Islands processors to secure their particular fibre needs. A fundamental conditions for a market to persist is that the cost of using the market (i.e. transaction cost) must be small and its functioning relatively transparent. Generally, the larger the volume traded on the market, the lower the unit transaction costs. Electronic “trading” of logs can also reduce the transaction costs.

A primary advantage of an island log market to the CFO is that it would provide an arms length mechanism for allocating its produce to on-Islands and off-Islands buyers so that it fetched the highest value. Presently, a formal log market does not exist. This may because relatively little volume is available for trading. The community forest initial harvest volume of 50,000 m³ is not sufficient in itself to support a log market. However, the CFO could act as catalyst, increasing the volume to include that from major licensees which would be available under the terms of the MoU.

7. Community Forest Operating Model

This section describes an operating model of how the CFO might be established and operate. It is broadly divided into four parts.

The first and second parts present a proposed three phase operating strategy and action plan that forms the basis for the business case analysis and a foundation for the startup and development of the community forest initiative. It provides a flexible approach that identifies initial goals, priorities and interim measures that recognize the current resources (i.e. human, financial) available to the Island Community and those required to conduct a forestry operation. The third part discusses operating issues and opportunities for the CFO. The fourth part discusses issues, assumptions, and ideas about how a CFO might fit into the existing forest sector. It describes the community forest as one small part of a potential forest sector economic development strategy and discusses how the development of local relationships with small business, industry, and community initiatives will be key ingredients for success and can help achieve the broad Island Community goals and principles as expressed in *The ICSI Consensus* document.

7.1 Operating Concept

The CFO will necessarily pass through several phases, like the establishment of any viable business entity. This includes the start-up phase, a transition phase, and a fully operational phase.

The start-up phase is generally characterized by an emphasis on planning, establishing the entity's presence, and securing the necessary legal (e.g. forest tenure) and financial arrangements to proceed to the next stage. The start-up phase is typically characterized by negative cash flow, with the organization's "owners" advancing or acquiring funds in anticipation of future operating surpluses.

The next phase is a transition stage. Operations commence during this stage, though under temporary arrangements, in order to establish a cash flow and gain operating experience. This stage is a transition in that the organization may not have sufficient skills, information, market relations, financial resources, and the like to realize its long term operating objectives.

The final phase is obtained once the organization is sufficiently developed that it can realize its long-term objectives. It is noted that the final stage is characterized as attaining long term objectives in a financially sustainable manner. Growth is sustained in this latter phase.

In this concept, the phases are evolutionary in nature. They allow the CFO and the scope of its activities to develop sustainably over time according to the social, economic, and ecological (or biological) goals and priorities of the Island Community. It is anticipated that the CFO will evolve from an initially simple operation based on existing resources into a gradually more complex operation characterized by a higher diversity of management approaches and outputs.

The development of the CFO is anticipated to occur in parallel with the development and diversification of the local forest sector.⁴¹ Although the CFO will generate a small part of the overall forestry activity on the Islands, (3-6% of QCI AAC), it has the potential to become an important force in the sustainable development of the local forest sector. Its small volume contribution will be a limiting factor to the nature and rate of growth possible, but it will provide a basis for the Island Community to demonstrate what is possible, and foster opportunities for further community involvement by local industrial tenure holders.

7.2 Action Plan

The specific tasks that comprise each of the phases are described as the Action Plan for establishing the CFO. These are the activities and considerations that a CFO will have to undertake (especially in the startup phase) to get up and running and begin to work towards achieving long term goals.

⁴¹ At present there is no overall forest sector economic development strategy for the Islands but a number of initiatives exist. The most important is the recently completed value added business study commissioned by the QCI/HG Wood Manufacturers Association which identifies weaknesses and makes recommendations for stimulating a local manufacturing and value added sector. In addition, some communities have economic development strategies that include strong forestry components but these have yet to be fully coordinated with other initiatives on the Islands. The recommendations of the 1992 Strathinnes report are also related to the economic development requirements of the local small business logging and processing sector. One of the recommendations of this report is ICSI, in cooperation with local community economic development initiatives, acquire funding and develop an overall, coordinated, community forest sector development strategy for the Islands as a whole.

Table 7-1 shows the relationship between the phases, and the relative timing of key activities. The core activities for each phase are described below. The level of detail is highest for the startup phase and becomes more general for subsequent phases. The details for these subsequent phases will emerge as the CFO develops.

The time lines shown for the startup and transition phases are reasonable assumptions of how long it might take the organization to become well established and fully operational. They have also been described to provide a context to potential involvement in a community forest tenure pilot project.

In reality, the speed with which the CFO is able to move through the startup and transition phases will depend on entirely on the united will and resolve of community and by how quickly and efficiently they are able to accomplish the various activities.

There is a potential risk inherent in the unique character of the Islands Community, with its range of diverse and distinct community and sectoral interests, that short term interest and focus on too many details during the startup and transition phases could bog the initiative down and result in failure. It will be crucial therefore that the Island Community stay together and keep the long term common vision and interests for a community forest as expressed in *The ICSI Consensus* clearly front and centre in everybody's minds. The community forest initiative is a long term undertaking with benefits that will transcend sectoral interests and extend to future generations through the creation of a diverse, viable and sustainable forest sector economy on the Islands. Everyone will ultimately benefit through its success although no one will benefit through its failure.

7.2.1 Startup Phase

The start-up phase will potentially include the following activities:

- _ establishing a legal structure,
- _ establishing the organization structure (CFB),
- _ acquiring community forest tenure,
- _ defining and elaborating interim goals, objectives and priorities for the startup phase (ICSI Consensus provides basic principles),
- _ creating a community 'Forest Charter',
- _ preparing an interim and long term business plan,
- _ securing the necessary financial arrangements,
- _ hiring initial staffing requirements: (general manager, forester, administrator),
- _ establishing infrastructure requirements (office, vehicles),
- _ initiating a community forest strategic management planning process,
- _ initiating an interim comprehensive resource inventory and mapping project,
- _ rationalize an interim AAC based on available data and current determination
- _ producing an interim five year forest development plan and acquiring road and cutting permit approvals: operational cruising, field engineering, mapping, resource assessments (e.g. stream , VQOs, geotechnical, recreation, wildlife etc.), silviculture prescriptions, logging plans, access management plans etc. (1-3 year process),

- _ assessing land base for status of basic silviculture liabilities (NSR) and requirements (planting, weeding).

Other startup activities could include:

- _ developing relationships with small business, local wood processors, industry, and community initiatives; and,
- _ providing the initiative to set up and implement an Islands wide log market.

It is envisaged that the startup phase may span the first 1-2 years of the CFO. During this phase, no revenues from logging are anticipated. The degree by which this stage can be compressed will have an important bearing on the initial success and viability of the community forest operation. Pragmatically it will be very important to begin to generate revenue by starting operations (transition phase) as soon as possible under interim measures, and in advance of detailed community based strategic planning.

Some strategies and options for shortening this phase could include:

- _ The establishment of an interim CFB appointed by ICSI to undertake the startup phase of the community forest. The board might initially be smaller (i.e. 6), balanced, and made up of experienced, capable persons primarily from the business community (Haida and non-Haida). They would be responsible for setting up the legal and financial structure of the CFO, hiring the staff, and generally getting the operation up and running in an efficient manner. The advantages of this approach are that it would allow the community to respond and act quickly and efficiently to a pilot project, and go through the startup phase while providing adequate time for the definition of terms of reference and election of CF board members. The elected board would take over from the interim, appointed board as soon as either the startup phase or the elections were completed.
- _ The inclusion of approved blocks within the community forest area that have already been developed within the SBFEP five year development plan. This will depend on what parts of the TSA are ultimately included in the community forest tenure, but it would allow the community forest to start generating revenue quickly thus limiting its startup liabilities. This option would require negotiation with the SBFEP to recover development costs but allow the community forest to realize the profit. (This approach is being used by a first nations community forest licence tenure on Nootka Island who have traded volume with an adjacent industrial forest licence holder, Western Forest Products, for pre-developed blocks. This is allowing the Band to get right to work and generate revenue while they continue with their five year development planning. Incidentally, the five year development planning also is being contracted to WFP.)

Table 7-1 Community Forest Operation - Operating Model and Action Plan

Activity	<i>time</i>		
	startup phase (1-2yrs)	transition phase (3-5yrs)	fully operational phase (10yrs+)
_ set up management structure (CFB)			
_ elaborate interim management objectives			

- _ secure necessary legal and financial arrangements
- _ hire operational staff
- _ initiate resource inventory
- _ develop interim management objectives and short-term AAC determination
- _ complete interim five year development plan and secure cutting permits
- _ develop long term strategic forest management plan, AAC determination
- _ build relationships / partnerships
- _ support / build upon existing infrastructure and initiatives
- _ start operating to establish a cash flow using existing resources and expertise
- _ build operating experience, capability, market relations
- _ develop, test, and implement new approaches, markets, and revenue sources including NTFPs
- _ develop long term financial, biological, and social sustainability
- _ diversify local economy/ sector
- _ diversify management approaches
- _ establish community forest reserve fund
- _ diversify value added sector
- _ forest certification

7.2.2

Transition Phase

In the transition phase, logging will begin using existing techniques and resources under the interim management objectives, goals and conditions of the CFO. It is assumed that road construction and logging will be contracted or sold to local logging companies bidding on the opportunity. The CFO will begin to generate revenues and start operating in a financially sustainable manner. The start of operations in this phase will allow the CFO to:

- build experience and capability,
- start to develop new operating approaches and systems for sensitive areas,
- start to develop and explore market relationships,
- start to develop alternative revenue streams from the community forest (alternative uses {recreation, education}, licensing of other resource uses {guiding, fishing, if applicable under tenure}, and non-timber forest products),
- begin to supply logs through a local log market to local users (primary breakdown, salvage operators, artisans, micro sawmills), and
- begin to generate jobs through silviculture activities and assessment work on previously logged lands that might fall within the community forest boundaries.

In the meantime, strategic planning and inventory work will continue towards realizing the long term objectives which comprise the final phase. By the end of the phase, the *Community Forest Stewardship Plan* (see Section 4) would be completed and its integration into future development planning and operations would begin. The CFO would continue to build and strengthen relationships and partnerships within the Islands Community and forest sector. This phase is assumed to continue 2-3 years following the close of the start-up phase.

During the final phase of the operating model, the CFO should be sufficiently developed that it can begin realizing the Island Community's long-term goals and objectives for the community forest. The beginning of this stage would be represented by a shift from operating under interim planning measures and operating standards, to operating under the terms of the completed and fully integrated *Community Forest Stewardship Plan* (CFSP).

Through the implementation of this plan, it is assumed that the long term silviculture and harvesting regimes that are compatible with the CFSP will be developed and established. This process is expected to create a secondary transition from traditional harvest methods to a mix of traditional and alternative harvest methods.

The ongoing development of initiatives and partnerships started during the startup and transition phases would continue to pursue wider social and economic objectives (e.g. increase local employment, increase on-Islands wood processing, economic diversification). Other initiatives that could begin once the CFO has become fully operational would include: the establishment of a community forest reserve fund from operating profits; and the application to acquire forest certification to enhance the value of the community forest through increased recognition and market opportunities. (Certification is discussed in more detail in the next section.)

7.3 Operating Issues and Opportunities

In addition to the nuts and bolts operating requirements, the CFO will have to deal with a series of operating issues. One of the primary issues it will have to consider as it begins operations is

how it will deal with the development and apportionment of harvest volumes. The apportionment and utilization issues cut to the heart of one of the main goals for a community forest: This and a number of other issues are discussed in the following sub-sections.

7.3.1 Community Stability

The community forest will have the capacity to produce an even flow of outputs (timber and non-timber) over time according to a defined management plan (CFSP). In practice however, harvest flows will be subject to complicating factors that will cause short and medium term disruptions, namely seasonal factors and market conditions. The community forest will be faced with these disruptions just like any other operator and will be forced to make difficult decisions regarding its operations that will likely have short term impacts on community stability.

With a harvest volume of only 3-6% of the total AAC of the Islands, the community forest alone will not have a big impact on current community stability problems. It does have the potential however to have an impact on long term community stability through diversification of the local forest sector and the development of alternative revenue streams and activities that can provide employment during log market downturns (subject to the financial limitations as noted in Section 6). However, even under these circumstances, the stability of employment opportunities for all employment groups within the sector cannot be guaranteed. In fact a strategy of skills and employment diversification by businesses and residents within the community as well as within the CFO will be necessary elements of the community stability equation.

7.3.2 Distribution of the Economic Effects of the Community Forest Operation

The CFO will effect economic activity on the Islands through the purchase of goods and services, and the sale of its produce. The basic options affecting the distribution of economic consequences are the following:

- _ long term contracts for road building and harvesting (phase contracts),
- _ short term revolving contracts for road building and harvesting,
- _ revolving timber sales of variable volume and durations, (SBFEP model - tenure permitting),
- _ log and short term log supply agreements with local manufacturing facilities,
- _ sale of logs through a local log market only (open vs. closed),
- _ sale of logs on the open market,
- _ log trading agreements with other licensees to balance volume and grade requirements and trade pulp grades that cannot be processed on Island.

Ultimately, a range of these options is recommended. The key principle suggested during consultations is that the volume from the community forest not be locked away into a few long term arrangements, but that it be allocated through rotating, variable term and variable size opportunities in order to foster and maintain a healthy, and diverse local forest sector economy. The CFO will have to carefully consider the special needs and requirements of each sector in deciding the best way to allocate the wood to enhance value, employment, and economic development. Some of the requirements heard during consultations included:

- _ That there are a spectrum of sizes and capabilities of operators and manufacturers on the Islands all with their own special volume requirements. These range from artisans and alaska millers who use very small volumes annually (<100m³) to micro sawmillers and hand loggers who use relatively small volumes annually to make a living (<1000m³) to the whole range of

- small medium and large sized operators who use and require between 2000 m³ to 50,000 m³ or more per annum.⁴²
- The volumes used and required by the higher number of small scale operators is relatively small in proportion to the volumes used and required by the fewer larger scale operators.⁴³
 - A mix of small and medium sized annual as well as multiple (3-5) year opportunities would best suit the independent logging sector.
 - Longer term (5-15 year), medium sized volume commitments would best suit the existing and developing manufacturers.
 - The two largest sawmills on the Islands indicated that they could use a minimum long term wood supply of between 10,000 m³ and 30,000 m³ respectively to sustain their existing operations. (note this applies to specific species and grades and not necessarily the harvest profile of the community forest).
 - Development of log trading agreements and strategies to balance species and grade requirements for local use as well as the sale of species and grades (i.e. pulp) that cannot be used locally.

7.3.3 Harvesting Methods

There is significant expectation from the community that the establishment of a community forest will lead to the development and use of alternative harvest systems to clearcutting. Some of the suggestions included:

- favor the use of more labor intensive high lead and skyline cable harvest systems over conventional systems;
- use alternative, specialized cable systems and harvest configurations (i.e. strips, patches etc.) to minimize coupe size and road requirements;
- use more ‘selective cutting’ from small group selection to individual tree selection and uneven aged management; and,
- use smaller clearcut patch sizes (<10 ha).

There exists in the literature and in practice (in BC and abroad) a broad range of alternative harvest systems and practices, many of which might be applicable to the Islands. Indeed, the wide range of sites, locations, timber types, and environmental constraints create the opportunity to use a variety of innovative approaches. The successful development and application of new approaches will depend on the economics, resources, and the entrepreneurial spirit and determination of the CFO.

Once again, the use of a diversity of operating systems, block sizes, and silvicultural approaches from conventional clearcut harvesting to individual tree selection is considered to be the most appropriate approach with the greatest potential for creating and sustaining a diversity of employment and forest sector development. The diversity of harvesting approaches could easily

⁴² A discussion of the profile of QCI wood users and their volume and species uses and requirements can be found in *Market Review of and Recommendations for the Queen Charlotte/Haida Gwaii Value Added Sector* (March 1998).

⁴³ An internal MB report estimated the local manufacturing consumption of the Islands to total less than 90,000 m³ of which 86,000 m³ was consumed by three major users - QCI Sawmills, Abfam, and K. Foote Contracting. (Dobson, P.O. 1996. *Investigation of opportunities for the local manufacture of value added wood products in the Queen Charlotte Islands.*)

be married with a diversity of apportionment approaches, especially at the small scale operator end of the spectrum.

One of the biggest current impediments to the broader implementation of alternative harvesting approaches is related to the stumpage and appraisal system. If alternative and innovative approaches to logging are to become the cornerstone of the community forest approach then their implementation will require flexibility, commitment, and support from the MoF in the areas of :

- _ appraisal and valuation approaches tailored to reflect alternative / innovative approaches; and,
- _ administrative support, timely approvals, entrepreneurial spirit.

On the community forests side, the development and implementation of alternative systems must be based on sound biological, economic, and social principles.

7.3.4 Forest Certification

In the terms of reference for this feasibility study the consultants were asked to evaluate the potential opportunities for 'green' certification of a community forest.

Forest certification is an environmental and market based initiative that provides for the recognition of good, or sustainable forest management based on defined standards. The certification of a forest creates a level of market recognition that in turn creates additional opportunities for the forest managers to sell their products.

In the case of the Haida Gwaii/ Queen Charlotte Islands community forest, certification would allow for the CFO to market and sell logs to processors as coming from a certified origin. Then through chain of custody accreditation, the processing and value added sector utilizing these logs, would be able to market the end product as originating from a certified forest. Therefore, to create the benefit from community forest certification implies that some form of cooperative, facilitative partnership arrangement will need to develop between the community forest, the local manufacturer, and the purchaser of the certified product. If the local manufacturer is not selling community forest products into markets requiring certification, then there would be little point in the CFO acquiring certification other than for the recognition.

At present, the demand for certified wood products is in fact increasing. This is mainly occurring in northern Europe but is gradually spreading to the United States and Canada. Although premium prices for certified products have not really emerged (except possibly in some high value niche markets), the main benefit is in the market access to major buyers groups who sell wide variety of products. These groups are currently having trouble acquiring enough certified wood for their needs which creates excellent opportunities and incentives for operations like the CFO and the local QCI manufacturing sector to develop stable new markets. The shortage of certified wood to meet growing demands is expected to continue through the next decade and so the earlier one can get into the market the better.

There are currently several options for certifying forests. These are based on a number of certification schemes that have emerged in the last 5-10 years and that have gained wide recognition globally, in Canada, and in BC (FSC, ISO14001, CSA Z809-SFM, SFF).

7.3.4.1 Forest Stewardship Council

Globally the most recognized certification scheme is that of the Forest Stewardship Council (FSC), which is developing standards based on a multi-stakeholder approach led by the non-governmental, environmental sector (ENGOS). The standard is based on a set of ten principles with corresponding criteria which must be satisfied by the proponent for forest certification. This standard has wide support from environmental organizations and from several powerful buyers groups in Europe and increasingly in the United States. The standard is tailored for small community forest organizations and certainly would be the most appropriate for the CFO to pursue. Notwithstanding, there are a number of issues raised by the standard that are relevant to BC forests and could have implications on the CFO harvest in 'primary' (old growth) forest types, conflicts over native land claims, pesticide use, (biodiversity) monitoring, and exotic plantations. The standard allows for product labeling.

7.3.4.2 ISO 14001

The International Standards Organization (ISO) 14001 standard is a generic environmental management system standard that is accompanied by an internationally derived briefing document for interpretation for forestry organizations. This standard is more appropriate for large integrated industrial forestry companies and is not recommended for the CFO. It also does not provide for product labeling.

7.3.4.3 Canadian Standards Association Z809

The Canadian Standards Association (CSA) Z809 Sustainable Forest Management (SFM) Standard was developed in Canada by a multi-stakeholder process. It is based on the ISO 14001 management system standard but also incorporates strong public participation requirements, and performance and monitoring standards for locally derived indicators based on the Canadian Council of Forest Ministers (CCFM) list of criteria and indicators. This standard is still quite new and perceived to be difficult and expensive to achieve due to the comprehensive requirements. Notwithstanding, the standard would provide a useful framework for the development of the CFO and provide a useful orientation to the national and international concepts of sustainable forest management. At present the standard has little market recognition and does not provide for product labeling.

7.3.4.4 Silva Forest Foundation

The Silva Forestry Foundation (SFF) standard is an ecosystem based wood standard developed in British Columbia by the Silva Forestry Foundation (Herb Hammond). It is based on the principles that:

- fully functioning ecosystems must be maintained both during and after timber cutting;
- ecosystem functioning must be protected at all times (both short and long term) and at all scales (stand and landscape levels);
- forest based communities must have fair and legal access to and benefit from the forest close to them.⁴⁴

The standard is well known in the Pacific Northwest but not widely recognized in the broader domestic and international market. While it would provide the CF with a basis for pursuing ecosystem based forest management according to SFF's approach, certification to SFF will not necessarily result in substantial market opportunities without extra marketing effort.

7.3.4.5 Certification Process and Costs

⁴⁴ Silva Forest Foundation: www.silvafor.org

The certification process involves inspection of the forest organization and area by a third party, independent certification body. In general the process involves:

- a pre-assessment to establish initial contact and ensure that there are no substantial gaps or issues that cannot be resolved or would prevent certification;
- a main assessment in which the forest organization is examined through a detailed audit of its operation for compliance and non-compliance to the 10 principles and associated criteria. If the performance is satisfactory, then a certificate is issued to manager of the forest certifying that the forest is well managed;
- once a certificate has been issued then a third type of assessment called chain of custody can be conducted to verify the production process from the forest through all manufacturing stages up to delivery to the customer. This assessment allows for the labeling of the product; and,
- annual surveillance visits are then conducted to monitoring performance and ensure continued compliance with the standard and the terms of the certificate. Re-assessments are conducted periodically, usually every five years.

The costs of certification for a community forest would be in range of \$25,000 to \$75,000 with annual maintenance costs of \$3000-\$5000.

7.4 Partnership Opportunities - The Community Forest within the QCI Forest Sector

An important characteristic of successful community forest ventures is the ability to build on existing structures and community strengths to achieve forestry goals in partnership with communities, local groups, local business and industry.

Partnerships are seen to be a key ingredient to the success of the community forest initiative. Working together on projects of joint interest strengthens the web of community economic development and creates new opportunities for all players. In particular:

- local band councils and communities can provide land for industrial parks and incentives for small businesses. Band councils and communities can also access resources not available to industry to develop complementary economic development initiatives. They in turn strengthen their social and economic base through increased employment and generate increased tax revenues.
- the local small business logging community can provide valuable business, technical, and operational expertise to the community forest. They in turn will depend on the opportunity to work for the CFO or bid on community timber sales while creating local employment.
- the local processing and value added community likewise can provide valuable business, marketing, technical, and operational expertise to the community forest. They will depend on the opportunity to access dependable supplies of logs in order to maintain and develop the manufacturing and value added base on the Islands while creating stable local employment.
- local licensees can also provide valuable business, technical and operational expertise to the community forest and are interested in working relationships that maintain or create local employment. Because of inevitable adjacency between a community forest tenure and existing licences, shared interests will arise that will need to be developed into working relationships. Since the major licensees operate with large volumes and have substantial infrastructure in place, they will play a key part in the development of log trading agreements, could provide markets for lower value pulp and commodity grades that can't economically be

utilized on island, the establishment of a local log market, and potential piggyback transportation arrangements.

Partnerships need not be financial in nature but encompass the range of cooperative and facilitative type partnerships.

The Islands Community is very fortunate to already have a well established forest infrastructure. In addition there are several active funding programs which have recently supported several independent forest sector studies and initiatives, some of which are about to be implemented. These resources and complementary initiatives create obvious opportunities and strengthen a community forest initiative.

7.4.1 Supporting and enabling initiatives

The following lists identifies a sample of the enabling and supportive initiatives on the Islands that could assist in establishing a viable community. This list does not specifically identify other commercial initiatives, businesses and facilities that already exist. For a list of wood users and categories of wood users refer to the recently published Wood Manufacturers Association study of the value added sector on the Islands. Funding bodies whose mandates include aspects of a community forest initiative:

- _ Gwaii Trust
- _ South Moresby Forest Replacement Account (SMFRA)
- _ Forest Renewal BC
- _ Federal Business Development Programs

Community and Forest Sector Initiatives, Resources, and Associations:

- _ Masset Community Skills Centre.
- _ Forest Industry Training Centre Feasibility Study, Dec 1997 (FRBC).
- _ Haida Gwaii/Queen Charlotte Islands Community Centre-Wood Products Training (implementation) Proposal. (FRBC) January 1998.
- _ Old Massett Band Council micro sawmill which currently produces lumber for community use and special projects.
- _ Market Review of and Recommendations for the Value Added Sector (WMA/FRBC) March 1998.
- _ Community Industrial Parks/Log Yards (Masset, Port Clements, Skidegate, Queen Charlotte).
- _ Planned Skidegate Band joint venture project with MacMillan Bloedel to establish a secondary processing facility on reserve land that is now being developed for use as a forestry industrial park.
- _ Skidegate Band Council micro sawmill which currently produces lumber for community use.
- _ Thermal-electric generation plant: A 7.5 megawatt electric generating plant is to be built in Port Clements next to the ABFAM mill. The plant will produce electricity for the north-end of Graham Island supplementing existing diesel generation facilities in Masset. The plant will use hog fuel created from waste wood material from logging, dryland sorting and processing. Heat generated by the plant could be used to run a proposed kiln facility allowing for greater use of QCI white woods and provision of raw materials for secondary value added processing.

- Queen Charlotte Islands Independent Forestry Association: represents members from the small business logging community.
- Queen Charlotte Islands/Haida Gwaii Wood Manufacturers Association: represents members from local wood manufacturing and value added sector. This organization is actively developing business plans and programming aimed at developing the sector. They commissioned the newly published “*Market Review of and Recommendations for the Queen Charlotte/Haida Gwaii Value Added Sector*” report. (March 1998).