

**AN IMPLEMENTATION ANALYSIS OF THE CLAYOQUOT SOUND SCIENTIFIC PANEL
RECOMMENDATIONS ON FIRST NATIONS PERSPECTIVES**

by

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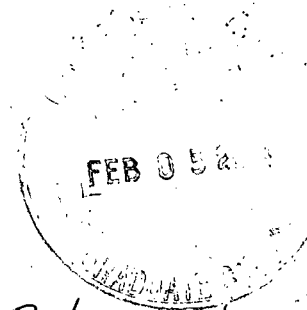
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ABSTRACT

In 1995, the government of British Columbia adopted a set of groundbreaking recommendations for addressing First Nations perspectives in forestry in Clayoquot Sound. The recommendations focus on three themes: First Nations participation in forest management and decision-making, protection of cultural values, and incorporation of traditional ecological knowledge in management. Key informants from implementing agencies and target groups including government, the forest industry, First Nations, and multisectoral planning and co-management bodies were interviewed to determine how effectively these recommendations have been implemented. Outputs of implementing agencies and their perceived impacts by target groups were assessed. Factors that act as challenges or facilitators to implementation are determined, to explain the reasons for the observed degree of implementation success in each theme. Applying a broad, adaptive approach in defining implementation success, it was found that substantial impacts have been realized. Foremost among them are relationship building between previously disparate parties, and cross-cultural learning and exchange. However, it was also found that the observed impacts cannot be attributed solely to the recommendations being studied, as there are many interacting factors.

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LIST OF ACRONYMS

The following acronyms are used frequently in the text:

CDC	Clayoquot Deputies Committee
CIT	Clayoquot Implementation Team
CRB	Central Region Board
CRTC.....	Central Region Tribal Council
CSAs.....	Culturally Significant Areas
CSPC	Clayoquot Sound Planning Committee
CSSP	Clayoquot Sound Scientific Panel
EBM.....	Ecosystem Based Management
FDP.....	Forest Development Plan
FNSPRs	First Nations Scientific Panel Recommendations
IMA.....	Interim Measures Agreement
IMEA.....	Interim Measures Extension Agreement
LBMF.....	Long Beach Model Forest
MOE.....	Ministry of the Environment
MOF	Ministry of Forests
MSRM	Ministry of Sustainable Resources Management
SP.....	Scientific Panel
SPRs	Scientific Panel Recommendations
TEK	Traditional Ecological Knowledge
TPC	Technical Planning Committee

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CHAPTER 1: INTRODUCTION

1.1 FIRST NATIONS AND FOREST MANAGEMENT

National and Provincial context

Historically, First Nations peoples owned their land and managed their resources communally. After colonization and the formation of Canada by the British North America Act in 1867, jurisdiction over lands and resources were allocated to the provinces, and “Indians and lands reserved for Indians” came under the jurisdiction of the federal government. Canada’s First Nations peoples were put on reserves and treated as wards of the state incapable of managing or governing their own peoples, lands and resources (Cairns 2000).¹

First Nations peoples have been fighting to regain their rights and sovereignty over their lands and resources ever since, and recent positive developments indicate that this struggle may not be in vain. Aboriginal rights are now protected under the 1982 Constitution Act of Canada, section 35 (1).² These rights are being defined by the Supreme Court of Canada in cases where First Nations people have argued that their rights are being infringed. “The Supreme Court’s decision in *Delgamuukw* shows that the Crown has an obligation to consult with, perhaps to obtain the consent of, and to provide compensation to First Nations for the infringement of aboriginal rights” (Richardson, 2002). Perhaps most tellingly, federal and provincial governments have finally begun to negotiate with First Nations governments for the return of some jurisdiction over lands and resources.

Many First Nations across Canada are now involved in land claims negotiations, through which they hope to regain control over their traditional lands and resources. Many of these court cases have been initiated in British Columbia (B.C.), where few treaties exist and the land question remains unresolved, with the potential for aboriginal title to be proven throughout much of the province.

¹ The Colony of British Columbia joined confederation and became a province of Canada in 1871.

² “The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.” (1982 Constitution Act, 35(1))

British Columbia has responded by initiating a tripartite treaty process, which has been ongoing since 1991 (British Columbia Claims Task Force, 1991).³ Treaty negotiation is long and tedious however, and no treaties have yet been finalized under this process. In the meantime, First Nations traditional territories remain under the jurisdiction of the provincial Crown, and the rights to harvest timber on much of these lands have been leased to large forestry companies through industrial tenures. First Nations have seen huge amounts of resources and profits from industrial logging leaving their communities, while receiving few benefits in terms of profits or jobs.

The recent B.C. Court of Appeals decision in the Haida case is important in driving change in the B.C. government's approach to aboriginal policy with respect to the forest sector. This decision stated that both the provincial government and forest licensees have a legal responsibility to ensure that First Nations are consulted, and that meaningful effort is made to include their input and to accommodate their concerns in *all* levels of decision making regarding commercial forestry activities on their claimed territories, where there is a reasonable probability that aboriginal title could be proven (Chief Justice Finch 2002).⁴

Forests are critical to the survival of First Nations culture; the forest resources are important for subsistence, spiritual, and ceremonial purposes. Furthermore, because many First Nations communities are situated in remote areas, forestry is one of their best options for local economic development (Brubacher 1998, NAFA 1996). The involvement of First Nations people in forestry on their traditional territories is a necessity to protect their rights to land and resources (Ross and Smith 2002). Understandably, First Nations are seeking avenues to gain some control over their lands and resources while they await the resolution of treaties.

International context

³ The Parties to the process are the provincial government, the federal government, and the First Nations. There are over 50 treaty negotiation tables in British Columbia at the present.

⁴ This case was regarding the Ministry of Forest's renewal of a forest tenure license with Weyerhaeuser, which was done without consulting the Haida Nation.

In addition to the above national and provincial level issues, the importance of addressing the concerns of indigenous peoples has been addressed in many international agreements on forests and the environment. The Rio Declaration, produced at the 1992 Earth Summit, and its follow-up action plan (Agenda 21) recognizes a "vital role" for indigenous peoples, and urges states to "recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development" (Mauro & Hardison 2000). This statement built upon the 1987 Brundtland Report of the World Commission on Environment and Development, which also stressed the importance of the lessons that may be learned from indigenous knowledge and practices (Berkes 1999, Ransom & Ettenger 2001). The most commonly cited agreement that requires signatories to incorporate indigenous peoples' knowledge in resource management is the 1992 Convention on Biological Diversity, specifically Article 8(j) (Mauro & Hardison, 2000; McGregor 2002; Ransom & Ettenger; 2001).⁵

1.2 THE CLAYOQUOT SOUND CASE STUDY

This study examines the relationship between First Nations and forest management by focusing on one case: Clayoquot Sound. Clayoquot Sound is comprised of over 2,600 square kilometers of temperate coast rainforest, ocean inlets, and wind swept beaches on the west coast of Vancouver Island in British Columbia. (see map, Appendix IIIA) It is one of the last remaining areas of relatively undisturbed, old growth forests on the island, and has been home to the Nuuchah-nulth First Nations since time immemorial. The abundance of natural resources and wilderness values in Clayoquot has lead to long-standing conflicts over appropriate land use in the Sound (Ministry of Forests 2000).

In the mid 1980s through to the early 1990s, these conflicts came to a head and became known across the province, the nation, and even internationally as "the War in the Woods." This conflict saw environmental non-government organizations (ENGOS) and First Nations set up blockades on logging

⁵ Article 8 (j) states that each party will: subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity...

roads, refusing to allow forest companies to proceed with their harvesting operations, in what were the largest displays of civil disobedience in the province's history (Berman 1994). Part of the government's solution to the crisis was the formation of the Clayoquot Sound Scientific Panel (CSSP) in 1993.

1.3 THE SCIENTIFIC PANEL

The CSSP was composed of scientists and First Nations representatives. The panel was charged with developing recommendations to create "world-class forest practices" in Clayoquot Sound (Iisaak Forest Resources 2002; Ministry of Forests 2000). The CSSP produced 5 reports and included over 120 recommendations, referred to as the Scientific Panel Recommendations (SPRs), among which were calls for a more detailed planning and monitoring process, reforms to specific forest practices, and recognition for the importance of First Nations values to forest management. On July 6, 1995, the government of B.C. accepted the panel's reports and the Minister of Forests, Andrew Petter, committed to fully implement their recommendations (Ministry of Forests 1995).⁶

The case study described in this thesis is focused on the CSSP's Report 3: First Nations Perspectives relating to Forest Practices Standards in Clayoquot Sound. Central to the recommendations in Report 3 is the theme of enhancing First Nations participation in forest management planning to ensure that they become equal partners in decision-making regarding resources on their traditional territories. Other major themes in Report 3 are the importance of integrating traditional ecological knowledge with scientific knowledge in resource management, and the necessity for protection of culturally important areas (CSSP 1995a). The acronym FNSPRs will be used henceforth to represent the recommendations in Report 3 (First Nations Scientific Panel Recommendations).

1.4 THE RESEARCH PROBLEM

It has been suggested that a framework similar to the CSSP recommendations should be adopted

⁶ The Panel actually adopted reports 3 and 5 only. These contain all the actual recommendations. Reports 1 and 2 were more general progress reports, and Report 4 was about the global context of the work of the Panel.

elsewhere on the B.C. Coast. However, there has been little analysis of what the Scientific Panel Recommendations have actually achieved. Although there has been some analysis of the recommendations on ecosystem management, notably by Friends of Clayoquot Sound in 1998, there has been no similar analysis for the recommendations on First Nations perspectives.

Seven years have passed since the government adopted the Panel's recommendations. It is important to determine what the successes and challenges have been with their implementation, and to analyze the outcomes of this new paradigm of forest management. This will be of value not only for the communities of Clayoquot Sound, but also to help to discern whether the Scientific Panel Recommendations concerning First Nations perspectives should be used as a model for other parts of the province. As First Nations become more involved in forestry in the province, through the treaty process and Interim Measures Agreements, it is important to understand and learn from the successes and shortfalls of existing cases.

Through the Interim Measures Agreement and the Scientific Panel Recommendations, First Nations in Clayoquot Sound have more power to make decisions, and to otherwise influence forest management in their traditional territories, than almost any other First Nations in the province⁷. Therefore it is the best possible example in British Columbia of First Nations co-management of forest resources, and may provide useful insight into how First Nations values and knowledge can be incorporated in forest management.

1.5 RESEARCH QUESTIONS AND OBJECTIVES

Research Questions

- How are the FNSPRs being implemented?
- What are the effects of their implementation?

⁷ The exception is the Nisga'a Nation in northern B.C., who signed a treaty giving them self-governing powers over their treaty lands and resources in 2000. The Nisga'a can manage their lands as they see fit, subject to the requirement that they must meet or beat current provincial and federal environmental guidelines.

- What factors have contributed to the successes and challenges with their implementation?

Objectives

1. To determine what government, industry, First Nations, and the Central Region Board have done to implement the recommendations.
2. To determine the extent and quality of First Nations participation in forest management.
3. To determine the extent to which Culturally Significant Areas (CSAs) are being protected.
4. To determine how Traditional Ecological Knowledge (TEK) is being incorporated into forest management
5. To examine factors that challenge or facilitate the implementation of the FNSPRs.

Organization of the thesis

This thesis is organized as follows. In Chapter 2, a review of the relevant literature is presented. In Chapter 3, the methods of data collection and analysis used to meet the objectives are described. In Chapters 4 to 6, results of the implementation analysis are presented and discussed. Chapter 7 presents the conclusions.

CHAPTER 2: LITERATURE REVIEW

This section presents background information on Clayoquot Sound, in order to provide necessary contextual information for the case study. Following that, the relevant theory behind each of the three themes of the FNSPRs will be discussed. Finally, theory and frameworks of implementation analysis are presented as they apply to the case study.

2.1 BACKGROUND ON CLAYOQUOT SOUND

2.1.1 The Biophysical Environment

Clayoquot Sound has a complex geography of mountains, valleys, ocean inlets, lakes, rivers, and islands. The terrestrial environment is covered with large tracts of primary temperate rainforest, characterized by heavy precipitation, large trees, and steep terrain. This makes it very sensitive to drainage disturbances and landslides, an obvious challenge for forestry operations.

Most of the forests of Clayoquot Sound (85%) are in the Coastal Western Hemlock (CWH) biogeoclimatic zone.⁸ The dominant tree species are western hemlock, western red cedar, and amabilis fir. The principal natural disturbance agent is wind throw (CSSP 1995b).

2.1.2 Social characteristics

The Nuu-chah-nulth people have lived on Vancouver Island, by their own account, since time immemorial. Archaeological evidence has revealed that there has been human occupation in the Clayoquot Sound region for at least 4,200 years (Efrat and Langois 1978).

The Nuu-chah-nulth Tribal Council (NTC) comprises 14 First Nations on the west coast of Vancouver Island. Three of these First Nations have traditional territories in Clayoquot Sound.

⁸ Forests over 900m elevation are in the Mountain Hemlock Zone up to the tree line (1200m). The CWH zone is divided into 2 subzones, 3 variants, and 4 phases. This detail is beyond the scope of this thesis, but can be found in Report 5 of the Clayoquot Sound Scientific Panel.

Ahousaht is the largest nation in the NTC and has approximately 1700 members. Their main community is named Ahousaht and is located on Flores Island (see map, Appendix IIIA).⁹ The Hesquiaht nation has about 600 members, and their main community is Hotsprings Cove. The Tla-o-qui-aht Nation has about 800 members, and their main communities are Opitsaht on Meares Island, and Esowista on the mainland.

"Prior to the arrival of European explorers, Nuu-chah-nulth people lived in a highly organized society in numerous villages spread up and down Vancouver Island's West Coast. They lived for countless generations on the resources of the sea and the forests, in harmony with the natural world surrounding them" (Nuu-chah-nulth Tribal Council 2003).

An abundance of resources in the region surrounding the Sound led to a highly developed, hierarchical, relatively sedentary society for the First Nations. An intricate system of resource governance and ownership existed. This was even recognized by one of the first British explorers and fur traders to "discover" Clayoquot Sound, British Royal Navy Captain Cook, who stated, "there was not a blade of grass that had not a separate owner" (Hoover 2000).

First contact with Europeans was with the Spanish ship *Santiago* in 1774 at Nootka Sound. The first sustained contact began in 1785, with fur-trading ships hunting sea otter and later fur seal that stayed for extended periods in the region, first in the summer months, and later year round. The Europeans had a profound influence on the Nuu-chah-nulth. Contact brought increased warfare among villages due to trade incentives, the availability of guns, and fighting amongst Spanish and British factions. These factors, combined with newly introduced diseases, contributed to rapid declines in local populations. In the end, traditional lifeways were disrupted, and amalgamation of nations occurred.

Non-natives first settled permanently in the region in the late 1800s, due to fishing and logging interests. The two non-native towns in the area are Tofino and Ucluelet.¹⁰ Tofino has a population of

⁹ Ahousaht is an amalgamation of 5 nations: Manhousaht, Ahousaht, Keltsomaht, Quatsweaht, and Owinmitisaht.

¹⁰ Ucluelet is geographically located just outside of Clayoquot Sound, in Barkley Sound, but is included in the CRB and affected by many resource management issues of Clayoquot Sound.

1400, and its economy is primarily based on wilderness tourism. Ucluelet, with a population of 1600, has remained more focused on the extractive forestry and fishing industries, although tourism is becoming very important to this community as well.

2.1.3 History of conflict

The conflict over the forest resource in Clayoquot Sound was kick-started by the logging road, which was completed in 1959, to connect the sawmills and pulp mills of Port Alberni with the logging industry around Ucluelet. This road opened up the region to tourism, and in 1970, Pacific Rim National Park was created on the coast between Tofino and Ucluelet.

The road and the park brought many tourists to the region and a new industry developed, bringing with it new residents. This new industry was based primarily on wilderness tourism, and thus it was in direct conflict with the forest industry. The new residents had a completely different mindset from the pre-road citizens, one of conservation, rather than extraction. Thus the sparks of conflict that would eventually result in the 'war in the woods' were set in motion (Darling 1994).

2.1.4 The Clayoquot Sound Dispute and its resolution

In the mid 1980s and early 1990s, this conflict ignited and became known provincially, nationally, and internationally as "the War in the Woods." ENGOs and First Nations began setting up blockades on logging roads and refusing to allow forest companies to proceed with their harvesting operations. The resulting work stoppages and arrests would become international headlines.

An important turning point in the dispute was in 1985, when Chiefs of the Ahousaht and Tla-o-qui-aht First Nations obtained an injunction from the B.C. Court of Appeal to stop logging on Meares Island until their land claim was resolved.¹¹ This was the first time the Courts had halted resource

¹¹ Meares Island is now a Tribal Park. The First Nations spent over a million dollars on court fees for this land claim. The Meares Island case won't be officially closed until a treaty is signed.

development on Crown land in B.C. due to an aboriginal title claim, and it eventually forced the provincial government to enter into treaty negotiations (Darling 1994, Tennant 1990).¹²

In 1989, the B.C. government set up the Clayoquot Sound Sustainable Development Task Force, in an attempt to resolve the ongoing conflict with local and international environmental groups, its resulting threat of European boycotts of B.C. forest products, and intense negative public opinion due to media pressure. The multistakeholder Task Force was mandated to create a land use plan for the region that would meet everyone's needs. They failed to reach consensus on areas to be protected, due to overly divergent and inflexible values of the various stakeholders, and the process was returned to cabinet, who announced the Clayoquot Sound Land Use Decision (CSLUD) in 1993 (Iisaak Forest Resources 2002).

Although the decision protected 34% of the land base, and placed another 21% in special management zones, it did nothing to placate the concerns of the environmentalists who wanted to see all of Clayoquot protected. Furthermore, the decision angered the Nuuchahnulth, as they felt that they were not adequately consulted in developing the land use plan on their traditional territory. Huge protests ensued, and over 800 people were arrested in the proliferation of blockades and related civil disobedience- the largest incidence of its kind in Canada.

The conflict led the province to enter into negotiations with the Nuuchahnulth, resulting in the 1994 Interim Measures Agreement (IMA). At the same time as the negotiations for the IMA began in October 1993, the creation of the Clayoquot Sound Scientific Panel was announced, to placate the concerns of environmentalists. The CSSP will be discussed following an explanation of the IMA.

2.1.5 The Interim Measures Agreement and the Central Region Board

The Interim Measures Agreement (IMA) between the province of B.C. and the Hawiik (hereditary chiefs) of the Nuuchahnulth nations (the Parties) was signed on March 19, 1994. It was the first IMA

¹² After the First Nations won the injunction in the Meares island case, several similar blockades and injunctions were obtained across the province, and the provincial government set up the BC Claims Task Force and entered into a treaty negotiations process with First Nations in BC and the federal government. The Treaty Process began in 1991, after over 100 years of the provincial government ignoring aboriginal title claims (Hoberg & Morawski, 1997).

in the province, and remains the only one of its kind. The agreement provides for local land and resource management, and economic development.¹³ The IMA has been extended twice, in 1996 and again in 2000, and provides the Nuuchahnulth with some control over and protection of the lands and resources in their traditional territories while treaty negotiations proceed (Province of British Columbia and the Hwiih of the Tla-o-qui-aht First Nations, the Ahousaht First Nation, the Hesquiaht First Nation, the Toquaht First Nation and the Ucluelet First Nation 1996 and 2000).¹⁴

The most important item in the IMA in respect to this study is the creation of a joint resource management body called the Central Region Board (CRB). The CRB has equal representation from the Nuuchahnulth and the provincial government, and is responsible for reviewing all proposals for development on the land base and assuring that they are consistent with their vision and objectives (Land Use Coordination Office 1996).

In their review role, they have 30 days from the receipt of a development plan or application from a proponent to recommend approval of, modifications to, or rejection of the plan to the originating ministry or agency. If the board's recommendations haven't been implemented to its satisfaction within 30 days, the board can refer the matter to either of the Parties to the IMA, who then refer the matter to Cabinet. To date, no referrals to the Parties or to Cabinet have been necessary (Clayoquot Sound Central Region Board 2003; Province of British Columbia and the Hwiih *et al.* 1994).

The CRB is composed of 5 government appointed local representatives and 5 First Nations members representing each of the central region Nations, and is guided by a government co-chair and a First Nations co-chair. Almost all decisions and recommendations have thus far been reached by consensus; however, if a vote is required, the voting system is set up such that there must be both a

¹³ The current version is the 2000 Interim Measures Extension Agreement- A Bridge to Treaty, which will be in place until 2005 or until a treaty is signed, whichever comes first.

¹⁴ The Nuuchahnulth are in the 4th stage of a 6-stage treaty process. The first Agreement in Principle (AIP) agreed on by the negotiators in 2002, was not approved by a referendum within the communities, thus they are back at the negotiating table. For details on the treaty process and the progress of the Nuuchahnulth treaty, consult the website of the BC Treaty Commission.

majority of the First Nations members as well as a majority of the board voting for the decision to pass (the double majority system).¹⁵

The objectives of the CRB, as stated in the 1994 IMA, are to promote sustainable economic development and diversification for the communities of Clayoquot Sound; to reduce unemployment levels within aboriginal communities; to assess compliance with forest standards such as those being considered by the CSSP; to provide a viable sustainable forest industry; to increase local ownership in the forest industry; and to work toward a reconciliation between environmentalists, labour, industry, First Nations and recreational users.

2.1.6 The Clayoquot Sound Scientific Panel

There were 19 members on the Clayoquot Sound Scientific Panel (CSSP), including scientists chosen for their expertise in regional ecology and biodiversity, as well as one chief and 3 elders of the Nuu-chah-nulth, who were authorities on traditional land and resource use. The 19 members included 2 co-chairs, one First Nations and one non-First Nations.

Scientists appointed to the panel were chosen for their respective experience in forestry planning, management or engineering; earth science, hydrology, fisheries and wildlife biology; recreation and tourism planning; or ethno-botany. A key requirement for membership was independence from government, industry, or environmental organizations (Clayoquot Sound Scientific Panel 1994b). The mandate of the panel was to review existing forest practices, and to recommend changes to standards where necessary in order to develop "world class" forest practices for the region.

Key principles agreed upon by the panel to guide their deliberations included using an ecosystem approach to planning, in which the primary planning objective is to sustain the productivity and natural

¹⁵ On one occasion, in September 2002, a vote was necessary, on a major amendment to an Interfor FDP, but the double majority vote did not affect the outcome, and the amendment was approved. More recently, in April 2003, the First Nations used their double majority vote to reject an Interfor FDP application. This is the first time the double majority vote has been used, and the first time the CRB has rejected such an application outright. What the affect of this decision will be and the MOF's response has yet to be determined. Consultations are in progress. (Mike Amrhein, personal communication, May 21, 2003)

diversity of the Clayoquot region. The rate of cut would be determined on an area basis at the watershed level, but only after all necessary ecosystem and cultural values had been protected (Clayoquot Sound Scientific Panel 1994b).

The CSSP produced 5 reports and made over 120 recommendations relating to, among other things, a detailed planning and monitoring process, specific forest practices, and the respect for and inclusion of First Nations culture and traditional knowledge. The Scientific Panel reports have become known in British Columbia as the basis for Ecosystem Based Forest Management. Report 5, the most often cited report, contains ecological recommendations on old-growth protection, hydrosiparian areas, terrain stability, ecosystem representation, and wildlife values, to name a few. Report 5 also details the planning process recommended by the Panel. Report 3, on which this case study is based, contains 27 recommendations on how First Nations perspectives should be incorporated into forestry.

The Scientific Panel Recommendations called for watershed unit plans that will set aside a reserve network to protect ecological, recreational, and cultural values on the landscape. As long as it is carried out in a manner consistent with the panel's recommendations, logging will be permitted on the remaining land base, termed the "Harvestable Area".

2.1.7 The Scientific Panel Planning Process

The Scientific Panel called for 3 levels of plans to be created: subregional plans, watershed plans and site level plans. Subregional plans consider issues and resources that span large areas, and address issues that cross watershed boundaries. Watershed level plans apply to a single watershed, or a group of contiguous watersheds (a watershed unit). Watershed plans identify reserves and harvestable areas within the watershed. The reserve network is designed to maintain long-term ecosystem integrity in the watershed, and to protect First Nations culturally important areas, as well as recreational and scenic values.

Site level plans pertain to discrete working units proposed for a specific management activity such as logging. The main objectives of site level plans are to identify any smaller features for protection that were not included in the watershed level plan, and to ensure that individual sites are well integrated with other existing and potential sites (Clayoquot Sound Scientific Panel 1995c).

In Report 5 on Planning and Practices, the Scientific Panel stated that "the Watershed level is the key long-term planning level, because it is within individual watersheds that the cumulative effects of all land-use activities create stress on ecosystems." Thus, the panel recommended that watershed plans should be completed as soon as possible (CSSP 1994b). The development of watershed plans is currently in progress. In the interim, in the absence of any completed plans, logging in Clayoquot Sound has been proceeding in 'developed watersheds', although at a much reduced rate.¹⁶ Licensees must have interim watershed plans approved before they can submit any Forest Development Plan applications.

The first three draft watershed plans underwent public review (lead by the CRB) from July to October 2002, and were passed to the Parties to the Interim Measures Extension Agreement (IMEA) for approval (the Parties referred to are the provincial government and the central region chiefs). These

¹⁶ The Scientific Panel defines Developed Watersheds as watersheds having some degree of development. Development may include forestry operations, roads, or housing (Clayoquot Sound Scientific Panel, 1995b, p.275).

plans are for the Cypre, Bedingfield, and Flores Island planning units, which are all in the traditional territory of the Ahousaht First Nation. (see map, Appendix IIIB) No official watershed plans are in place as yet, but when approved, these plans, or some of their objectives may be legislated as higher level plans under the Forest Practices Code Act of British Columbia.¹⁷ Details of the watershed planning process to date will be described in chapter 4 on implementation outputs.

2.1.8 The current shape of the Forest industry in Clayoquot Sound

Government's role: The Ministry of Forests

In British Columbia (as in all of Canada), most forests lie on Crown land, which places them under the control of the provincial or federal governments. In B.C., 95% of forests are under the jurisdiction of the provincial government.¹⁸ The Ministry of Forests (MOF) is responsible for assigning tenures to forestry companies, and for ensuring that the forests are managed in the best interests of the citizens of B.C.. The Ministry of Forests collects stumpage from licensees, which is a substantial portion of government revenues, and thus the government has a vested interest in maintaining the profitability of the forest industry.

Licensees

Presently, the two major forest tenure holders (licensees) in Clayoquot Sound are International Forest Products Limited (Interfor), and Iisaak Forest Resources Limited (Iisaak). At the time that the Scientific Panel recommendations were adopted, the major license holders were MacMillan Bloedel and Interfor. MacMillan Bloedel's tenure in Clayoquot became Iisaak Forest Resources, by way of the Interim Measures Agreement (discussed below under Iisaak). MacMillan Bloedel's operations in B.C.

¹⁷ Several interviewees suggested that it would not be a good idea to legislate the plans as higher level plans, as it would not allow for adaptive management to work smoothly. They state that the plans must be adaptable, without requiring a lengthy process such as cabinet approval for amendments.

¹⁸ Ownership by the provincial Crown is subject to Aboriginal title claims throughout much of the province. This will be eventually resolved through the Treaty process and/ or through the courts.

were taken over by Weyerhaeuser Canada in 2000, so Weyerhaeuser is now the industrial partner in lisaak.

Interfor is one of western Canada's largest logging and sawmilling companies, with tenures throughout British Columbia. It has been operating in the province since the 1930s. Interfor's tenure in Clayoquot Sound is part of its TFL 54, which stretches from Nootka Sound in the north to Barkley Sound in the south, covering a total area of 60,986 ha with an annual allowable cut (AAC) of 75,750 cubic metres.¹⁹

Iisaak was created under the 1996 Interim Measures Extension Agreement. It is a joint venture forestry company, 51% owned by the 5 central region First Nations through Ma-mook Development Corporation, and 49% owned by Weyerhaeuser.²⁰ Iisaak controls TFL 57, which was previously the Clayoquot Sound portion of MacMillan Bloedel's (now Weyerhaeuser's) TFL 44. TFL 57 covers an area of 87,664 ha. Iisaak's AAC is 123,800 cubic metres, but in its first two years of harvesting, only approximately 12,500 m³ were harvested each year.²¹ Iisaak's harvest increased to 46,110 m³ in 2002, and will likely continue to increase, as the company becomes more established.

Iisaak practices conservation-based forestry, which is based on considering the environment as a benefit and managing for a wide range of values. This organization is becoming known worldwide as an innovative forest management company, leading in incorporating indigenous values and meeting the criteria for sustainable logging.

The logging industry in Clayoquot Sound has declined enormously since the early 1990s. Prior to the 1993 land use decision, and the further decreases in allowable cut due to the Scientific Panel

¹⁹ 93% of TFL 54 is within the Clayoquot Sound Land Use Decision boundaries and it covers about 17% of the area in the Clayoquot Sound Land Use Decision boundaries.

²⁰ Although Iisaak is owned by the 5 central region First Nations (Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Ucluelet), TFL 57 only overlaps with territories of the 3 first nations in Clayoquot Sound (Ahousaht, Hesquiaht and Tla-o-qui-aht).

²¹ Following the Scientific Panel Recommendations, Iisaak uses an area-based formula to calculate its harvest levels. However, under the Forest Act, the Chief Forester is still required to set a volume based AAC. Iisaak has been working with the MOF to officially move to an area based AAC calculation for Clayoquot Sound.

recommendations, the AAC in Clayoquot Sound was close to 900,000 cubic metres. It has since dropped to under 200,000 cubic meters, with actual harvest levels being considerably lower. Impacts on regional employment levels and economies have been hard felt (Hoberg & Morawski 1997).

2.2 THE SCIENTIFIC PANEL RECOMMENDATIONS ON FIRST NATIONS PERSPECTIVES: DESCRIBING THE 3 THEMES AND HOW TO ANALYZE THEIR IMPLEMENTATION

For each theme, a description of the concepts involved will be presented, followed by a summary of the recommendations for that theme, a discussion of how successful implementation can be measured, and some common challenges and facilitators. A *facilitator* is a factor that makes successful implementation easier. A *challenge* is a factor that makes successful implementation more difficult.

2.2.1 Theme 1: First Nations Participation in Forest Management

Defining First Nations Participation

First Nations participation in forest management can take many forms. In Canada and British Columbia, current efforts by government and industry to involve First Nations in forestry on their traditional territories include the allocation of forest tenures, co-management agreements, joint-ventures with industry, and negotiation of social and economic benefits such as training, employment or sub-contracts (Ross & Smith 2002). All of these types of First Nations involvement exist in Clayoquot Sound. Some are related to the implementation of the Scientific Panel Recommendations on First Nations Perspectives, others developed out of the Interim Measures Agreement or other independent processes. The types of First Nations participation that are addressed in the recommendations for this case study include employment, training, and most importantly, co-management.

Definitions of co-management are varied. In its most basic sense, co-management is the sharing of power and responsibility between the government and local resource users (Beckley 1998). Some scholars include any kind of partnership between resource users and the state under the umbrella of

co-management, whereas others include only formal, institutionalized power sharing arrangements (Castro & Nielson 2001). The latter describes the kind of co-management that exists in Clayoquot Sound under the Interim Measures Agreement (IMA) that created the Central Region Board (CRB). In Report 3, the Scientific Panel explains that the IMA establishes protocols and processes for Nuu-chah-nulth participation and decision-making in land and resource planning and use. The Panel supports these objectives of the IMA.

Other studies have shown that co-management can give First Nations a powerful voice in management of natural resources in their traditional territories (Ross & Smith 2002; Treseder & Krogman 2000; Clogg 1999). Thus co-management of resources is becoming widely recognized as a means of incorporating aboriginal knowledge and values. The Scientific Panel states that co-management has an adaptive ability to resolve management issues when two or more separate legal and cultural systems are applied to the same resource. It provides the following definition of co-management: "the shared decision-making process, formal or informal, between a government authority and a Native or other user group for managing a species of fish or wildlife, or other resource" (Clayoquot Sound Scientific Panel 1995a, p.19).

The literature suggests that the impetus for implementing co-management usually arises out of conflict, often due to overexploitation of resources and fear of their eminent collapse (Castro & Nielson 2001; Pinkerton 1989; Singleton 1998). In Clayoquot Sound, the protest campaign and media scrutiny put pressure on the provincial government to negotiate with First Nations leading eventually to the IMA and the CRB (Castro & Nielson 2001). Co-management in its most complete form involves shared property rights and responsibilities for resource allocation. However this level of co-management is rare to non-existent in Canada, as property rights still rest with the provinces and are only leased as industrial tenures. Cases such as Clayoquot Sound where there is partial power sharing are termed 'incomplete co-management' by Evelyn Pinkerton (1989).

The Scientific Panel Recommendations on First Nations Participation

The Scientific Panel recommends that the Nuu-chah-nulth be equal partners in co-management. To this end, they recommend that all decision-making processes and planning processes for forest and ecosystem use in Clayoquot Sound be undertaken with full consultation with, and participation of First Nations. Specifically, they also recommend that First Nations are consulted and participate fully in all inventory, mapping, and monitoring projects for ecosystem management, as well as in planning forest operations. They recommend that education and training programs as well as employment opportunities be provided to First Nations in order to meet these goals. (See Appendix I for actual recommendations). The results of this study will show how these recommendations are being implemented.

What constitutes success in First Nations participation?

There are many factors discussed in the literature that denote success in First Nations involvement in resource management. Some are more tangible such as employment opportunities, capacity development, and economic development, that can be measured by looking at outputs of implementing agencies (Castro & Neilson 2001; Clogg 1999; Ransom & Ettenger 2001; Richardson & Green 1989; Treseder & Krogman 2000). Other factors can only be measured by looking at perceived impacts among government, First Nations, and industry participants. These factors are described below.

Co-management is said to be successful when it incorporates decision making traditions and institutions as well as knowledge systems and customary resource management systems of the user groups, rather than simply requiring them to fit into the government's usual decision making processes (Beckley 1998; Castro & Nielson 2001; Gardner 2001; Pinkerton 1989; Ransom & Ettenger 2001). In Clayoquot Sound, this is addressed by using consensus-based decision-making, incorporating traditional ecological knowledge (TEK) and science in management, and recognizing Hahuulhi: the Nuu-chah-nulth traditional system of land and resource ownership and management.

Other important successes associated with First Nations participation, and co-management in particular, is relationship building and trust building among actors and parties with a previous history of

mistrust and conflict (Gardner 2001; Pinkerton 1989; Singleton 1998; Treseder & Krogman 2000). As Pinkerton explains, these may be the most important impacts of co-management:

"Institutions and legal arrangements can only permit, support and create incentives for new relationships: it is the new relationships which generate the communication, trust, and willingness to risk innovation which make the benefits of co-management actually materialize... Forging of new relationships has potential for long-term positive impacts resulting in less conflict and higher quality management and long-term community based development." (Pinkerton 1989, p.8)

Another common variable by which to evaluate the success of co-management regimes is the degree of power sharing by the state with the local user groups (Singleton 1998; Treseder & Krogman 2000). In this case, this means exploring how much decision-making authority is given to First Nations, and the resulting degree of community empowerment, influence over government policy, and control over resources in their territories (Castro & Nielson 2001; Clogg 1999; Singleton 1998). Some studies suggest that if user groups are only given an advisory role, they will feel no real empowerment, and that if their advice is not applied, it amounts to government co-optation rather than co-management (Singleton 1998). However, some studies conclude that even when co-management takes on an advisory function, benefits can accrue including relationship building, capacity development, and cultural exchange (Treseder & Krogman 2000). Although there is a formal structure for co-management in Clayoquot Sound through the IMA and the CRB; the study results will show that although the level of official decision-making authority given to First Nations in Clayoquot Sound is debatable, there have been undeniable benefits associated with their participation.

A complication with determining the effects of co-management is that different actors may view different goals/ successes as most important (Pinkerton 1989). Further, trust and new relationships take a long time to develop. An interviewee in Singleton's study suggested that it may take up to 30 years from the instigation of co-management "before everyone feels like its a good thing" (Singleton 1998). This shows that it is still early to be analyzing the success of implementing the Scientific Panel Recommendations regarding First Nations participation in Clayoquot Sound.

Furthermore, as Beckley (1998) reminds us, experiments with social and institutional change like co-management will not always produce desired outcomes; they need to evolve with adaptive

management and continuous fine-tuning. The process will be educational- not just the product.

Challenges and Facilitators to First Nations Participation and Co-management:

There are several common challenges to involving First Nations in resource management. One often mentioned challenge is government bureaucrats not wanting to give up authority, especially if they were previously in a position of hegemony (Beckley 1998; Castro & Nielson 2001; Huntington 2000, Pinkerton 1989; Singleton 1998). This is relevant to this case study from the perspective of the Ministry of Forests.

In addition to this, as mentioned above, there is often a history of mistrust between parties, as co-management often develops from conflict and crisis (Singleton 1998; Treseder & Krogman 2000). The fact that co-management arises from conflict can be a challenge in itself, in that once the crisis dissipates, or decreases in salience or media attention, government commitment to co-management efforts may decline (Castro & Nielson 2001).

The remaining challenges are common factors in implementation analysis. First, as the scientific panel acknowledged, "it will require major effort to surmount current license agreements." (Clayoquot Sound Scientific Panel 1995a, p.35). Provincial or corporate policies often limit the scope of decisions that local resource users can take (Beckley 1998). Furthermore, as ultimate stewardship authority and property rights ultimately reside with government and industry partners (as is the case with most examples of co-management in Canada), the decision-making powers of First Nations are necessarily limited (Beckley 1998). Current legislation binds Ministers to retain final decision-making authority (Gardner 2001).

The capacity of First Nations to meaningfully participate in co-management is a common challenge (Clayoquot Sound Scientific Panel 1995a; Castro & Nielson 2001; Treseder & Krogman 2000). As Castro (2001) explains, indigenous groups may face difficulty due to a lack of capacity in the dominant society's negotiating methods and institutions. Furthermore, the linguistic background and technical nature of language used in resource management is unfamiliar for many First Nations participants.

Cultural differences among the parties involved is also challenging, in that it can lead to miscommunication and conflicting expectations (Gardner 2001).

Finally, co-management requires substantial commitment of time and resources from all parties (Singleton 1998; Treseder & Krogman 2000). This level of commitment may be difficult to achieve, both for small community partners with limited resources to begin with, and for government partners facing declining budgets. It is the opinion of some authors, however, that the trend towards decentralization of governance and declining government budgets may not be a challenge at all, but may actually facilitate the development of co-management agreements (Castro & Nielson 2001; Pinkerton 1989). Key actors can also facilitate successful implementation of co-management programs. Motivations and attitudes of key individuals can make or break co-management. No matter how much legal backing or supportive arrangements an agreement has; it is felt that these individuals can facilitate co-management by applying constant pressure to advance the process (Pinkerton 1989; Singleton 1998, Gardner 2001).

These challenges and facilitators will be relevant to the analysis of the implementation of the Scientific Panel Recommendations regarding First Nations Participation.

2.2.2 Theme 2: Protection of Culturally Significant Areas

How Are Culturally Significant Areas protected?

Since the 1970s, mapping of culturally significant areas (CSAs), often referred to as Traditional Land Use and Occupancy Studies, have been carried out with increasing frequency by First Nations communities in Canada and indigenous peoples around the world (Horvath *et al.* 2001). Such studies involve collecting, documenting and mapping data about traditional and contemporary land use, by conducting interviews with elders and other users (Horvath *et al.* 2001). The process has been defined as the geography of oral tradition, or the mapping of cultural and resource geography (Tobias 2000).

CSA maps have a multitude of functions for First Nations in addition to their value for forest management and planning. They can be used in land claims, treaty negotiations, education curricula,

and community planning (Tobias 2000). CSA maps are most commonly developed, however, as an information tool that can assist First Nations, industry and government in creating a participatory process that facilitates First Nations involvement in resource development decision-making (Horvath *et al.* 2001, p.27).

Governments are required to ensure that they do not unjustifiably infringe on constitutionally protected Aboriginal rights. They are legally bound to consult with First Nations prior to the development of forestry operations in any First Nations territory. If there is not adequate information on aboriginal rights in the area, adequate consultation cannot occur (Horvath *et al.* 2001). Thus CSA mapping is a necessary step in allowing government to fulfill its fiduciary obligation toward First Nations people.²²

However, it is important to remember that the existence of CSA maps does not preclude the need for consultation; rather, they should be seen as a tool to aid in consultation (Horvath *et al.* 2001 Tobias 2000). Industry and government must continue to consult directly with the community, in order for CSA maps to be effective.

Scientific Panel Recommendations on protecting Culturally Significant Areas:

As the Scientific Panel explains in Report 3, certain culturally significant sites are protected as cultural heritage resources under the provincial Heritage Conservation Act.²³ However, the Act only affords legal protection to 'archaeological sites' and 'historic sites', both of which require physical or written evidence. This in no way encompasses the full range of sites that are culturally important for First Nations. Many culturally important sites such as sacred sites are supported by no physical evidence, and as First Nations traditional cultures are oral in nature and not written, there is no legal

²² When the federal government took on First Nations peoples as 'wards of the state', it took on the role of trustee, with a fiduciary responsibility to act in their best interests.

²³ The Panel refers to Culturally Important Sites. The term Culturally Significant Areas is preferred because this is the term that the Ahousaht Nation chose to use for the draft watershed plans in their territory.

basis for protecting such sites. The Scientific Panel recommends that sites communicated by oral traditions alone, as well as those with physical and written evidence, must be protected.

The Scientific Panel recommends that Nuu-chah-nulth cultural sites be protected from logging in Clayoquot Sound; this recommendation includes the following types of sites: ²⁴

- Food harvesting (*i.e. fishing, hunting*)
 - Material harvesting (*i.e. fur trapping, cedar bark/ planks*)
 - Ceremonial/ Religious (*gathering place/ ceremonial preparation place*)
 - Medicinal (*medicinal plants*)
 - Traditional History (*origin story/ legend*)
 - Cultural landforms (*legendary landforms/ named places*)
 - Transportation (*land or water route*)
 - Supernatural Beings (*i.e. transformer stones*)
 - Habitation (*i.e. Seasonal fishing camp*)
 - Recreational (*i.e. for games/ competition*)
 - Cross-Cultural Interaction (*first contact/ conflict*)
 - Traditional Land Management (*i.e. place where burning was done to increase berry production*)
 - Education and Training (*i.e. specific places where young people are taken for training*)
- (list adapted from CSSP Report 3, p. 30-31)

The Scientific Panel recommends that First Nations be given the opportunity to identify, locate, and evaluate those culturally significant areas that lie within their territory before any forestry planning occurs. They further recommend that First Nations identify appropriate methods for protection of these sites, according to the area and use. This study will determine the extent to which these recommendations on protecting CSAs are being implemented for forest management in Clayoquot Sound.

²⁴ To develop this list, they expanded on the typology developed in 1994 by the Heritage Conservation Branch of the B.C. Ministry of Tourism and Ministry Responsible for Culture.

Measuring success of CSA mapping

There are several conditions that influence the success of CSA mapping projects. Studies have shown that successful projects are those that are community driven and participatory. Projects that have been initiated and led by outsiders do not have much benefit to the community (Horvath *et al.* 2001; Tobias 2000; McGregor 2002). First Nations communities should have control over designing the process for CSA mapping as well as the kind of information they would like to display and how much detail will be released (Gardner 2001; Horvath *et al.* 2001; McGregor 2002). They must retain control over what information is to be shared and how that sharing will take place (McGregor 2002).

Relinquishing control of the process to First Nations can demonstrate trust between the parties, resulting in better information being shared, and in building positive relationships between government agencies and First Nations (McGregor 2002). Community driven CSA mapping projects can also have many side benefits to the First Nations community itself, in addition to their intended benefits for resource management. These include passing on TEK to future generations, enhancing traditional uses of the land, building capacity and relationships in the community, and helping to invigorate a community's pride in its cultural heritage (Horvath *et al.* 2001; Tobias 2000).

Having said this, it would seem that it may be too early to analyze implementation success for CSA maps produced in the Scientific Panel watershed planning process, as there are no official plans in use by licensees yet. We can look for perceived impacts in the community, however, focusing on side benefits such as those suggested in the literature. The definition of success for a CSA mapping project must be broader than just looking at the use of the products, the process of producing the maps is valuable in itself.

Challenges and Facilitators

There are several challenges due to the nature of CSAs that create difficulty for ensuring their protection. The Scientific Panel acknowledges some of these challenges in Report 3. One common challenge is confidentiality. Because of their personal and private nature, many sites are confidential to

individuals or families. People often do not want the locations and uses of these sites to be common knowledge even within the First Nation, let alone outside for industry and government to know (Tobias 2000). Certain sites such as burial grounds might be vulnerable to theft if they become public knowledge. Other threats that encourage confidentiality include tourism, and appropriation of intellectual property.

A second common challenge is that for many First Nations people, the whole landscape is sacred. To aboriginal people, all of creation is sacred: the animals and plants, the winds and thunderstorms, the rocks and mountains. Everything in the natural world is sacred; it was made and placed on earth by the Creator. Because all things are sacred, all places are sacred (Erasmus 1989; Oakes *et al.* 1998). Thus "mapping offers only a limited form of protection of Native values, in stark contrast to the holistic manner in which aboriginal people define them" (McGregor 2002, p.835).

So how can we determine which sacred places to map and to protect from development? Tradeoffs must be made between protecting the land for cultural and spiritual reasons, and getting involved in industrial forest management for economic reasons (Horvath *et al.* 2001; Booth 1998). The sacredness of the land does not mean that the land with its resources cannot be used (Oakes *et al.* 1998). First Nations people have used and managed the land since time immemorial.

In addition to the fact that large areas of land are seen as sacred, a further complication is that sacred sites generally have no physical evidence. First Nations sacred sites are in people's minds and oral histories, and as such they are questioned by the western tradition that relies on writing and physical evidence (Oakes *et al.* 1998; Tobias 2000). "From a western perspective, sacredness is assigned to cathedrals, neat cemeteries, and the Bible, things that are grossly visible and tangible" (Oakes *et al.* 1998).

Not only are sacred sites intangible, they are also of an intensely personal, spiritual nature. Sites become sacred due to individuals' direct interactions with the spiritual world. For First Nations, spirituality is intricately interwoven with their relationship to the land. Everything is spiritual (Horvath *et al.* 2001). This spirituality is difficult for most western resource managers to understand. The idea of a

fasting site, for example, is essentially foreign to most Western sensibilities, so its sacredness is alien to non-Native people (Oakes *et al.* 1998). However, this lack of visible signs of sacred sites highlights the importance of CSA mapping, in order that developers can be made aware of the presence of such sites, so as not to unwittingly damage them.

Another challenge is that uses of land are evolving and hence CSAs are changing over time. Thus CSA mapping must be an ongoing process (Erasmus 1989; Horvath *et al.* 2001). Culture is not static or fixed in stone. Patterns of occupancy and use change over time (Tobias 2000). In order to respect this, CSA mapping needs to address current and future uses, in addition to past traditional uses (Horvath *et al.* 2001).

A practical challenge relates to the difficulty of ground-truthing. Ideally, once people have marked their important sites on a map, they are taken to the field and the exact location of the site is determined using GPS (Global Positioning System), to ensure accuracy (Horvath *et al.* 2001; Tobias 2000). Although ground-truthing is time consuming and expensive, it is important to ensure that sites will not be damaged by development, due to inaccurate maps. This underscores the need for consultation with the community to continue, even if detailed CSA maps are available to forest licensees.

CSA maps usually have blank space between the sites, and the interpretation of this blankness by forest licensees can be problematic. Corporations and agencies may carry on with business as usual on areas for which no data is mapped; however, the blank space might be critical to the survival of a culture (Tobias 2000; Toupal *et al.* 2001). Toupal *et al.* explain that it is important to think about interconnections between sites, and clusters of sites, rather than thinking of sites as individual points on a map. A cluster of sites together and the trails interconnecting them often has a ceremonial function, and damage to even one part of such a system, may destroy its function. This is another reason why

First Nations may prefer to map large polygons to represent CSAs, rather than simply data points.²⁵

A final challenge relates to the different worldviews with regards to the relationship of people and nature. The western view of people being separate from the ecosystem is the basis for the concept of zoning and carving off “protected areas” and excluding human use in these areas, in the name of conservation and “wilderness preservation”.

In First Nations worldviews, people are an integral part of nature, not separate from it (Erasmus, 1989; Gardner 2001; Oakes *et al.* 1998; Toupal *et al.* 2001). For Natives, the concept of wilderness protected from people has no meaning, thus the concept of protected areas or reserves is problematic (Erasmus 1989; Gardner 2001). For Native people “wilderness” is their “homeland” (Oakes *et al.* 1998).

This creates problems for the Scientific Panel’s framework for protecting ecosystem values through removing areas of land or “reserves” from the operable land base in order to protect ecological and cultural values. First Nations people will need to be assured of continued access to their territory for traditional subsistence and ceremonial needs (Erasmus 1989). This is reminiscent of the issue of access to parkland, and the reason for which First Nations are reluctant to have Parks or “reserves” created on their traditional territories. Although in formal government policy, First Nations’ rights to access resources in provincial and national Parks for traditional pursuits is protected (subject to conservation concerns), in practice, they are often regulated or excluded (Gardner 2001). This issue may be a challenge for implementing the Scientific Panel watershed reserve plans.

2.2.3 Theme 3: Integration of Scientific and Traditional Ecological Knowledge (TEK)

Defining TEK

Traditional ecological knowledge, commonly referred to as TEK, exists in societies that have been living off the land in one region for many generations. There are many definitions of TEK. The scientific panel defined TEK as “indigenous peoples’ knowledge of their environment, its processes,

²⁵ First Nations keep the more detailed maps with actual points of CSAs, but these maps are kept confidential for use by the community. Maps showing large polygons, with less detail are made available to government and industry for their planning (Tobias 2000). This also protects confidentiality of sensitive sites such as burial sites.

and interrelationships” (Clayoquot Sound Scientific Panel 1995a, p.11). A more thorough definition is offered by Berkes *et al.*: “TEK is a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and their environment.” (Berkes *et al.* 1999, p.8)

The term TEK can be problematic, because the word “traditional” evokes an idea of historical, antiquated knowledge that is not relevant to the modern world (Berkes 1999; Davidson-Hunt & Berkes 1999). This is why some scholars in this area prefer the term indigenous knowledge. The Scientific Panel used the term TEK, however, and therefore the term is also applied in this study.

Although it may share common characteristics, TEK is different for different First Nations, as each culture has its own traditions and its own environment (Turner 1997; Turner 1999). For the Nuu-chah-nulth, the idea that everything is interrelated is embodied in their concept of *hishuk ish ts'awalk*²⁶. The Scientific Panel adopted this concept to describe the ecosystem management approach to forest practices that they recommend (Clayoquot Sound Scientific Panel 1995a, p.15).

It is clear that TEK was integral to the philosophy on which the Panel based their new paradigm for forest management. Thus, even if this research shows that the specific recommendations regarding the incorporation of TEK in forest management are not being successfully implemented, it should be recognized that TEK has still had a major influence on forest practices in Clayoquot Sound.

Combining TEK and Science in Resource Management. Theory and practice.

The Scientific Panel, and much of the literature on TEK, suggests that scientific knowledge and TEK can and should be used together in resource management. As the Scientific Panel clearly states, the knowledge systems have different origins but common goals. “Both approaches seek to understand interrelationships, including humanity’s place, within a forest ecosystem” (Clayoquot Sound

²⁶ Hishuk-ish-ts'awalk is a Nuu-chah nulth phrase meaning ‘everything is one’.

Scientific Panel 1995a, p.16). TEK should be seen as complementary to scientific knowledge due to the following key differences between the two knowledge systems.

First, whereas scientific studies are usually based on a limited time period of observation, TEK is long term. Second, TEK is holistic, whereas science is reductionist, breaking complex systems down into individual parts that are amenable to study by experimental design (Clayoquot Sound Scientific Panel 1995a; Thomson *et al.* 2000). Third, in science, the holders of knowledge acquire it as “dispassionate observers”, that see themselves as outside of the system. Holders of TEK see themselves as an integral part of the system.

An important similarity between TEK and scientific knowledge is that they are both evolving, dynamic forms of knowledge. As report 3 states, TEK may be revised daily and seasonally through the annual cycle of activities. It is important to remember that TEK is not a static form of knowledge that is part of the “past” and out of date (Horvath *et al* 2001; Oakes *et al* 1998).

The following examples demonstrate how TEK can be complementary to science in resource management. In 1977 in Alaska, in response to a ban imposed on the harvest of Bowhead whales, Inuit whalers formed a commission, and won a political fight against the ban. The government lifted the ban in favour of a quota system, based on a population census. Initially the census was done using visual counts of migrating Bowheads, yielding population estimates of 2000-3000 whales. The Inuit whalers felt this was much too low, based on their traditional knowledge and use of the land. They collaborated with scientists in the 1980s, and it was agreed to expand the census to include acoustic and aerial methods. The new census yielded estimates of 6000-8000 bowheads, resulting in higher quotas (Huntington 2000).

Since 1988, TEK and science have also been used together for the management of Beluga whales in Alaska, through the Alaska Beluga Whale Committee. Government members and native hunters have learned to value and respect each other's knowledge and methods for assessing stock levels, and the two groups continue to work together to provide an expanded knowledge base, to improve their understanding of beluga ecology and to better manage the stocks (Huntington 2000).

There are also many examples where attempts to incorporate TEK and science for resource management have been unsuccessful, as demonstrated by the following case of the Crees of Eeyou Astchee (northern Quebec) from a 1996 report by NAFA (National Aboriginal Forestry Association). The Crees have an elaborate system of resource management that divides the land into wildlife harvesting territories along natural drainage lines. Several families may be granted the right to use a single territory, but each territory is stewarded by a single tallyman. The Tallyman communicates with the families and tracks harvesting and conditions on the land, with an eye to all resources and their interconnections, to ensure that no one area of the territory is exhausted of its resources. The Cree believe that the tallymen's accumulated knowledge of the land is vital to maintaining an optimal yield of resources.

In the mid 1980s, the federal government asked Cree tallymen to participate in the Resource Development Impact Program (RDIP), an information sharing exercise where Cree tallymen and provincial resource planners would work together to develop forest management plans for the area. Cree tallymen identified significant areas for wildlife habitat and other features, to inform the province's forestry planning activities. The problem was that since the RDIP was a federal initiative, and the province (that has jurisdiction over lands and resources) did not really buy into the project, much of the information provided by the Crees was never used. Furthermore, the Cree weren't given control over the sharing of the information they provided, and in some cases, information has been used to their disadvantage. Forest managers didn't incorporate the TEK in their plans, because, for instance, many of the moose wintering yards identified were large areas, and contained valuable timber stands that had already been allocated for cutting.

Another problem was that the provincial forest management units are much larger than the Cree wildlife harvesting territories, so often too much of one territory is harvested, while remaining in the provincial guidelines for harvest levels within a management unit. This can be detrimental to Cree

families using that territory. The Eeyou Atschie Cree case emphasizes the importance of recognizing Nuu-chah-nulth Hahuulhi boundaries in forest management in Clayoquot Sound.²⁷

There are other places in British Columbia where attempts are being made to incorporate TEK and science in land management. These include the Gwaii Haanas reserve on Haida Gwaii (the Queen Charlotte Islands), where the Haida Nation are collaborating with the National Parks Service, and the development of the Kitlope watershed on the central coast, where knowledge and philosophies of the Haisla and the Henaaksiala peoples will direct the co-management of the new reserve (Turner 1997). These cases are still in the early stages, and it is too soon to assess how successful the incorporation of TEK has been.

Scientific Panel Recommendations on TEK in forest management

The Scientific Panel recommends that standards for forest practices incorporate TEK. They state that conflicts between scientific knowledge and TEK must be resolved in consultation with First Nations. Inventory, monitoring, and research must also recognize and include TEK. This study has attempted to determine the progress with the implementation of these recommendations.

Measuring successful incorporation of TEK

One factor which is necessary for successful incorporation of TEK is to have First Nations people involved from the outset of planning (Thomson *et al.* 2000). This is the only way to develop acceptable policies that recognize the value of both types of knowledge. Successful incorporation of TEK also requires First Nations people to have control over what information is shared and the context in which the sharing takes place in incorporating TEK in forest management in a way that is respectful to their culture (McGregor 2002).

In order to successfully incorporate TEK into resource management, it is necessary to incorporate the philosophy and worldview that it is based on, and to meld that with the scientific philosophy of

²⁷ Hahuulhi is the Nuu-chah-Nulth system of land management, whereby the Hawiith (hereditary chiefs), have the responsibility to steward their lands (Hahuulhi), for the members of their family group or tribe. The Scientific Panel recommended that Hahuulhi be recognized and respected in resource management (see Appendix I).

resource management. It is important to not just treat TEK as another category of information to be inserted into western management systems (Davidson-Hunt & Berkes 1999).

Resource managers should "start with TEK and work from there, rather than adding it to a scientific approach as an afterthought." (Gardner 2001, p.34) Unfortunately, when resource managers talk about incorporating TEK, often what they really mean is how to fit TEK into their system of resource management, rather than really embracing it as a way of knowing, and developing a new system around it.

As Little Bear stated, the predominant view is that "...yes, Indian views are important. We can make use of Indian views, if we can include them in the western view, if loopholes and pigeonholes allow the Indian view to be incorporated." To really incorporate Indian views, it would be better to say "let's lay our system aside and come up with something new" (Oakes *et al* 1998, p.16). Lertzman (1999) believes that this is what the Clayoquot Sound Scientific Panel was trying to do as they developed their recommendations. This study will determine whether this melding of worldviews has continued in the implementation phase.

Challenges and Facilitators to incorporating TEK:

The main factor that creates difficulty for combining TEK and science in resource management is that TEK is part of a different worldview than science (Berkes *et al.* 2000). The scientific panel described the difference between these two worldviews as follows. The first key difference is that indigenous societies see people as one with nature and the universe, whereas the western worldview, of which science is a part, sees people as separate from and in dominion over nature. The second important difference is that TEK is inherently spiritual. All things are seen as the work of the Creator, everything is sacred and interconnected. This spiritual view of all things results in a deep respect for all life forms and the land itself (Erasmus 1989; Turner *et al.* 2000; Thomson *et al.* 2000).

Another challenge is that in contrast to western science, TEK cannot be separated from its cultural and social contexts (Berkes 1999). "Indigenous knowledge cannot be properly understood without

discussing the other elements of their culture, because Native culture is built on the interrelationship between all of its elements. Indigenous knowledge works with the other elements, not isolated from them." (Ransom & Ettenger 2001, p.226) The whole First Nations lifestyle - cultural, social and spiritual - is part of TEK. It is beyond the western concept of "ecological" (Gardner 2001). This makes it difficult for the majority of resource managers to effectively incorporate TEK, because it requires a deep understanding of First Nations culture, which may only be possible to learn by experience. The spiritual nature of this knowledge makes it especially hard for westerners to comprehend, given that they are trained to separate science from religion.

Because TEK is transmitted orally and learned by experience, the only way for resource managers to learn about it in order to incorporate it is through interviews with First Nations holders and users of the knowledge. This leads to a cynical view of TEK from some scientists that see the information as subjective, anecdotal and unreliable (Ransom & Ettenger 2001; Turner 1997; Thomson *et al.* 2000). This can be a barrier to the incorporation of TEK in resource management.

Another challenge is that non-native people tend to equate TEK with "old ways". However what is 'traditional' about traditional knowledge is not its antiquity, but the way it is acquired and used; it is learned and shared through personal experience. Traditional knowledge continues to grow as First Nations people interact with the land and each other (Horvath *et al.* 2001, p.13). The non-native belief that traditional knowledge isn't applicable to the modern world needs to be dispelled before government resource managers will learn to accept it and value it. A final challenge to more widespread incorporation of TEK in resource management is bureaucratic resistance to change, perhaps linked to a government agency's fear of losing power (Huntington 2000).

Recent trends in the direction of resource management towards new paradigms of integrated ecosystem management, like the framework developed by the Scientific Panel, should facilitate the incorporation of TEK in resource management. As the study of ecology is evolving into a more holistic form, looking at ecosystems as integrated systems, the gap between science and TEK is narrowing (Berkes 1999; Berkes *et al.* 2000; Davidson-Hunt & Berkes 1999; Gardner 2001).

2.3 IMPLEMENTATION ANALYSIS THEORY AND FRAMEWORKS

Several forms of implementation analysis could be applied to the Clayoquot Sound case study. The majority of this thesis will follow a thematic analysis that revolves around the three themes presented in section 2.2. However, many other models of analysis exist. A review of implementation analysis theory follows, and then variables that are important to this study are explained.

2.3.1 Implementation and the Policy Cycle

Implementation is an important phase of the policy cycle. It's a necessary stage to examine in determining the effects of policies on their target populations. The policy cycle, a commonly used model for policy analysis, consists of agenda setting, policy formulation, decision-making, implementation and evaluation phases (Hill & Hupe 2002; Hoberg 2001). Other scholars have added a feedback loop to the cycle, called reformulation, based on results of evaluation (Mazmanian & Sabatier 1983a). These policy cycles can be iterative, resulting in directed change over time. Although the policy cycle is a useful model for looking at the components of policy change, many scholars have emphasized that the phases are not discrete, but blurred (Hill & Hupe 2002; Hoberg 2001); a degree of subjectivity is involved in saying where one stage ends and the next begins (deLeon, 1999). In implementation analysis, one generally tries to look at the implementation phase itself; however, it is useful to remember that it is an integral part of the policy cycle, and that activities in all other parts of the cycle can affect the activities and impacts of the implementation phase.

2.3.2 Defining Implementation

Implementation has been defined in many different ways. The simplest definition is "*what happens between policy expectations and policy results*" (Barbara Ferman, quoted in deLeon 1999, p.314), or the gap between expected impacts and actual impacts of a policy (deLeon 1999). Some scholars of implementation have offered much more detailed definitions. One of the most often cited definitions was developed by Mazmanian and Sabatier:

"...implementation is the carrying out of a basic policy decision, usually incorporated in a statute but which can also take the form of important executive orders or court decisions. Ideally, that decision identifies the problem(s) to be addressed, stipulates the objective(s) to be pursued, and in a variety of ways, "structures" the implementation process. The process normally runs through a number of stages beginning with passage of the basic statute, followed by the policy outputs (decisions) of the implementing agencies, the compliance of target groups with those decisions, the actual impacts- both intended and unintended- of those outputs, the perceived impacts of agency decisions, and finally, important revisions in the basic statute." (Mazmanian & Sabatier, 1983a)

It should be noted that such detailed definitions as the one above include theoretical arguments on how implementation should be viewed. For instance, the definition by Mazmanian and Sabatier is based on their top-down perspective on implementation, which will be discussed below (Hill & Hupe 2002). Most implementation research now recognizes that the top-down and bottom-up perspectives both have something to contribute to explaining policy implementation. In this study, it is clear that variables from both models affect the probability of implementation success. Therefore, it is more appropriate to rely on the more general definitions of implementation offered above for this study. These broader definitions are also the kind more often used in recent implementation research (Hill & Hupe 2002).

For this case study, implementation is defined as what has happened since the Scientific Panel Recommendations on First Nations Perspectives were adopted by the government in 1995, in terms of what has been done by implementing actors and agencies (the outputs), and the perceived impacts of these actions by both implementers and target groups.

There is overlap between implementers and target groups in this case study. Implementing agencies include government ministries, First Nations, and forest licensees. Target groups consist of First Nations and forest licensees. Forest licensees are implementing agencies, in that they must implement the recommendations in order to have their plans approved. They are also a target group, in that the recommendations are intended to change their practices. First Nations are implementers in that the FNSPRs cannot be implemented without their participation. They are also a target group in that it is their values that the recommendations are intended to protect.

2.3.3 Outputs and Impacts

A primary focus of implementation research in general, and this study in particular, is the performance of implementing agencies, which is often referred to as *outputs* (Hill & Hupe 2002; Mazmanian & Sabatier 1983b; O'Toole 2000; Winter 1999). It is important to study outputs because some earlier studies, which focused on the impacts of actions alone, often concluded that either the policy was flawed or that the causal theory behind it was flawed whenever desired impacts were not observed. What further implementation research later discovered, however, was that the reason that there were no impacts was because the policy had actually not been implemented as intended. Agencies and individuals that were supposed to put the policy into action had not done so. Thus there had been no *outputs*. Along with determining the outputs, it is important to determine variables that affect the ability of actors and agencies to do what the policy requires them to do; in other words, why outputs are better in some cases than they are in others (Morah 1990a).

Some scholars have also emphasized that since the real goal of policy is to have impacts on some target population, then implementation research should also look at the relationship of the above defined outputs with actual impacts (Mazmanian & Sabatier 1983a; Winter 1999). In other words, if policies are implemented as intended, do they have the intended impacts?

It is often very difficult to measure actual impacts (Mazmanian & Sabatier 1983a), but perceived impacts can be determined by interviewing people close to the program about how things are going (Morah 1990a). This is the methodology undertaken in this case study. O'Toole (2002) among others, has stressed the importance of gaining an understanding of the perceptions that implementation actors themselves have about their circumstances. Some scholars have even suggested that perceived impacts may be more important than actual impacts in the evaluation of policy (Mazmanian & Sabatier 1983a).

The problem with using impacts as dependent variables is that they are also affected by factors other than the policy under scrutiny (Hill & Hupe 2002; Majchrzak 1984).²⁸ Therefore, when analyzing impacts one must also consider possible confounding contextual factors such as other interacting policy or legislation, or external issues such as the state of the economy. Such interacting factors are clearly relevant in the results of this case study.

2.3.4 Theory and Frameworks for Implementation Analysis

Two main branches of theory have developed since the seminal implementation study by Pressman and Wildavsky (1973) attempted to explain why policies may or may not be considered successfully implemented. These branches are most commonly referred to as the top-down and bottom-up perspectives.

The top-down perspective focuses on the policy design and structure, and the decision-makers' ability to shape implementation activities and results through better policy design. Top-downers focus primarily on variables such as defining clear and consistent goals, assigning implementation to sympathetic agencies and giving them adequate resources and authority for implementation (Matland 1995; Mazmanian & Sabatier 1983a; Winter 2003). They see implementation as being structured and controlled from the top, by which they mean the highest-level decision-makers who designed and adopted the policy. Two common criticisms of top-down models are firstly, that by concentrating on the statutory objectives, analysts may fail to consider broader objectives, and secondly, that this perspective sees implementation as purely administrative, and ignores its political aspects (Matland 1995).

The bottom-up perspective sees implementing officials as important actors in the overall implementation process. It recognizes the ability of these actors to exercise their discretion based on their expertise and on local conditions, in order to interpret and apply policy to the best advantage of the target population. Bottom-uppers focus on variables such as behaviour or performance of

²⁸ In some implementation literature, impacts are referred to as outcomes. These terms are interchangeable, but the term impacts will be used throughout this study.

implementers, with a focus on service deliverers and target groups, to explain why implementation effects are different from one location to the next (i.e. for central policies implemented in various localities) (Elmore 1980; Meyers & Vorsanger 2003; Schneider 1999; Winter 1999; Winter 2003). They see implementation as being controlled from the bottom, or the target population, up through the “street-level bureaucrats” or local implementers dealing with the target population. As such “...policy is not simply received and implemented, [but] rather... is subject to interpretation and then recreated” (Hill & Hupe 2002, p.149).

Both bottom-up and top-down perspectives take into account the importance of historical, political, socio-economic, and other contextual conditions and their dynamics of interaction with the possibilities for implementing new policies (Hill & Hupe 2002; Matland 1995; May 2003; Mazmanian & Sabatier 1983a). From a bottom up perspective, it is desirable for implementers to adapt policies to fit these conditions, even if it will result in straying from the intended effects strictly written in the policy. In contrast, in a top-down perspective discretion is undesirable, and the policy should be written so as to avoid the possibility of such discretion, by offering inducements for compliance, or sanctions against non-compliance (Matland 1995; Mazmanian & Sabatier 1983a).

Most researchers have now dropped the top-down vs. bottom-up debate (Hill & Hupe 2002; Matland 1995; O'Toole 2000; Winter 2003). They recognize that both perspectives reveal important variables for consideration. Some researchers have tried to develop models and frameworks that either integrate the two perspectives, or suggest conditions under which one perspective may be more applicable than the other; one such model was proposed by Richard Matland in 1995. This model was found to be particularly useful in conceptualizing the implementation analysis for this study.

Matland's model is based on the “ambiguity level” and the “conflict level” inherent in a policy. It suggests that when there is a low level of ambiguity, meaning goals and objectives of the policy are clearly stated, the top-down perspective is valid. Where goals and objectives are vague or unclear, however, a bottom-up perspective is more useful. “Conflict” will exist when more than one organization sees a policy as directly relevant to its interests, and when these organizations have incongruous

views, resulting in disputes over policy goals or the means of achieving them. Matland suggests that when the level of conflict is low and ambiguity is high, a bottom-up approach is preferred. When both conflict and ambiguity are high, both top-down and bottom-up perspectives have something to offer.

This study of the Scientific Panel Recommendations on First Nations Perspectives in Clayoquot Sound is an example of a policy where there is high ambiguity, which will be shown in the results, as well as high conflict, which is evident from the crisis out of which the Scientific Panel emerged. This adds support to the use of variables from both perspectives in the present research. Paul Berman's theory (1980) supports the applicability of bottom-up variables to this study. Berman states that when change is incremental, technology is certain, environment is stable, goal conflict is low, and institutional setting is tightly coupled, an implementation plan should follow the tenets of the top-down model. In contrast, major policy changes involving uncertain technology, with goal conflicts and an unstable and loosely coupled environment should include bottom-up variables (Matland 1995).

2.3.5 Defining "Successful" Implementation

Even more important than determining what variables affect successful implementation, is defining what actually constitutes success in these cases. As with implementation analysis, there are two theories on this, which tend to fit with whether one belongs to the top-down or bottom-up perspective.

The first theory is that implementation success is defined by how small the gap is between intended results of the policy as defined by the policy makers, and actual results as observed by the target population, in other words, using goal achievement as the main dependent variable. This fits the top-down focus with central actors being viewed as the most important. A criticism of this view is that goals are often ambiguous or "intentionally reaching for lofty and unreasonable aims" (Morah 1990b), and goals often are not expected, or even intended to be achieved (Winter 2003).

The other theory is that implementation should be looked at adaptively as evolving toward solving a particular problem area. As long as the implementation of the policy has had some positive impacts, as judged by the target population, it should be seen as successful, even if it has not achieved its intended effects that were specified in the written policy. This view fits the bottom-up perspective. Effects that

can be included in the definition of success, from this perspective, include the building of positive relationships between and among implementing agencies and target populations, as well as education of implementers and target populations about the problem at hand and possible solutions to it, or even the improvement of the political climate around a program (deLeon 1999; Hill & Hupe 2002; Majchrzak 1984; Matland 1995; May 2003; Schneider 1999). "Increased understanding and alleviation of local problems are two measures of success that frequently are likely to be relevant, especially where statutory mandates are vague, which they often are" (Matland 1995, p.17).

Such successes have also been viewed as part of the "cumulative incrementalism" implementation model (Mazmanian & Sabatier 1983c; Sabatier 1993) , which suggests that through successive policy cycles, implementation comes closer to attaining the initially intended effects by policy designers, through reformulating the policy according to results of implementation and evaluation analyses of previous cycles.

In determining criteria for success, vague goals and ambiguity are more common than not, and this should not necessarily be seen as a bad thing (Matland 1995). Ambiguity may lead to learning- especially where there is poor understanding of the problem. Ambiguity also provides opportunity to learn new methods, technologies, and goals (Morah 1990b). It will be shown in the results that the recommendations for this case study have vague goals, and learning plays an important role.

Although variables from both the top-down and bottom-up perspectives will be examined in this study, the adaptive implementation perspective will be adopted in terms of defining implementation success. As will be revealed in the study results, the degree of change from the status quo required by the Scientific Panel Recommendations on First Nations Perspectives is so great that an incremental view of implementation is more realistic. Adopting this perspective acknowledges the importance of the implementation process itself as being valuable, rather than just the products (Yin 1980, quoted in deLeon 1999, p.323). Process factors that will be seen as a success in the results of this research include relationship building and education.

It has also been emphasized by many researchers (deLeon 1999; Hill & Hupe 2002; Lester & Goggin 1998; Schneider 1999; Winter 2003) that the view of implementation as success or failure - common in early implementation research - is a false dichotomy. Implementation effects should be looked at as a continuum, and even small successes should be celebrated, because the frequent view by researchers of implementation as a failure, is a very pessimistic view, and is not useful in helping policy makers and implementing agencies to continue to strive for positive change. As deLeon (1999, p.322) said, "...we should not depict implementation as an impossible portrait. 'Things' do get implemented and carried out on a regular basis. So 'something' is happening to get 'that thing' on 'track', even if it is not on the originally envisioned track to a predetermined destination." He emphasizes that the main problem with much implementation analysis is that researchers have been looking for an idealized solution. "The discrepancy between 'something' and 'that idealized thing' is often a matter of rose-colored expectations" (de Leon 1999, p. 322).

Thus, in this case study, the focus will be to look for what *has* been accomplished, and not simply to focus on shortfalls or barriers to implementation. Especially given that the Scientific Panel Recommendations on First Nations perspectives represent a very different paradigm for forest management in B.C., it would be unreasonable to expect perfection on the first attempt. An incremental, adaptive approach to looking for implementation successes will yield much more useful and accurate conclusions.

This approach takes into account the importance of policy-learning, defined as "relatively enduring alterations of thought or behavioural intentions that result from experience and are concerned with the attainment or revision of policy objectives" (Sabatier 1993, p. 19). In this work, Sabatier acknowledged that his previous model with Mazmanian focused too much on the perspective of program proponents, and neglected strategies for learning by other actors (Hill & Hupe 2002). Other scholars also discuss the importance of policy learning in implementation. Hill and Hupe (2002) state that implementation should be seen as an interactive process with policy formation- through learning, adaptation and exploration. Matland (1995) states that the implementation process provides an opportunity to learn

new methods as well as to reach new goals. Meyers and Vorsanger (2003) state that especially in cases where goals are vague and technology is uncertain; creativity, adaptation and learning by implementers are important.

Therefore, gaps between expected and actual implementation outputs and impacts may be viewed in a positive light of learning and adaptation by the implementers, rather than in the negative light of non-compliance with statutory goals and objectives.

In this case study, this perspective is appropriate where non-compliance with the recommendations themselves as they are written is observed, as policy learning was seen to be highly relevant. Nevertheless, one must keep in mind the common criticisms of this perspective where discretion and adaptation are viewed as positives. The first is that policy shouldn't be changed or made by non-elected administrators (Hill & Hupe 2002; Matland 1995). Another criticism of this bottom-up approach is that it is difficult to distinguish between constructive adaptation by implementers due to a need to meet local conditions, and purposeful straying from policy intentions due to a disagreement with the policy goals (Matland 1995; Stoker 1989).

2.3.6 Variables/ Factors Affecting Implementation Success

Both the top-down and bottom-up perspectives on implementation have developed long lists of variables for the analysis of success or failure. A 1986 review of implementation research by O'Toole resulted in a list of over 300 variables (Matland 1995), the following selection of which have been suggested as common factors affecting implementation. This selection was found to be relevant to this study. These variables are divided into the following four categories: variables that relate to policy design (arising primarily from top-down models), variables that relate to implementers, and variables that relate to target groups (arising primarily from bottom-up theory), and context variables (arising from both top-down and bottom-up models).

Variables related to policy design

The first of these variables which applies to this study is the *degree of systemic change* that the

policy requires (May 2003; Morah 1990b).²⁹ This variable extends from Mazmanian and Sabatier's (1983) factor of 'degree of change from the status quo'. May states that system changing policy designs; entailing new allocations of authority are rarely used, because much opposition can be expected. The Scientific Panel Recommendations on First Nations Perspectives can be viewed as system changing, so their implementation can be expected to be challenging.

The second, and most commonly cited policy-design variable is *resources* afforded to implementing agencies, also referred to as *capacity*, that affect their ability to put a policy into action. Capacity has many facets, including finances, personnel, knowledge, and authority, which can be influenced by factors such as funding levels, training, education and technical assistance (Hill & Hupe 2002; Lester & Goggin 1998; Mazmanian & Sabatier 1983a; Meyers & Vorsanger 2003; Morah 1990b; Schneider 1999; Stoker 1989; Weimer & Vining 1999; Winter 2003).

The third policy-design variable that is important to this study is the *degree of oversight* afforded to the attainment of policy objectives by high level officials, or by the courts, sometimes referred to as "fixers" (May 2003; Mazmanian & Sabatier 1983a; Weimer & Vining 1999). Peter May (2003) emphasizes that oversight can include not only government appointed monitoring agencies and the judicial system, but also the media, public interest groups, trade groups, investors, and other interested actors. This broad perspective of oversight is applicable to this study.

Variables related to Implementers

The next category of variables is those that relate to implementers. The most important variable in this category for this case study is *interorganizational relationships*. This variable has many aspects, including interdependence, degree of common interests, and trust among implementing agencies, which influences their degree of cooperation and commitment to policy objectives. Another related factor is simply the number of implementing agencies involved. Some say that the greater number of

²⁹ Policy design variables are also referred to as central variables in some texts- since they are influenced by 'central' actors- or policy makers.

agencies and sectors involved in implementation, the more difficult it will be, following the hypothesis of 'complexity of joint action' developed by Pressman and Wildavsky (Morah 1990b; Stoker 1989). Other researchers including O'Toole (2003) state that increasing the number of actors and agencies involved can actually result in increased support for a policy, by building social capital through cultivating norms supportive of cooperation between participants and agencies. It will be shown that both sides to this argument apply in different ways to this case study.

The second variable in this category to be discussed in this case study is the implementers' understanding and acceptance of the policy objectives (May 2003; Mazmanian & Sabatier 1983a; Weimer & Vining 1999).

Variables related to Target Groups.

In this third category, there are two variables that are relevant to this case study. The first is the degree of support by target groups for the policy objectives (Hill & Hupe 2002; Mazmanian & Sabatier 1983a). This is important particularly where target groups are politically powerful (Hill & Hupe 2002), which holds true for forest licensees. The second important variable is the relationships between target groups, termed 'affected publics' by Peter May (2003). Stable relationships among publics are helpful for policy legitimization and implementation (May 2003).

Variables related to the Context.

The last category of variables is important in any implementation study. There are many facets to the context that can affect the possibility of implementation success. These include economic, social, political, historical, cultural, institutional, and technological factors. The dynamics of these contextual factors must also be considered, including how the policy interacts with not only existing conditions, but also with emerging policy, legislation and technology. It will be shown in the results that many of these context factors are very important in explaining the implementation progress of the Scientific Panel Recommendations on First Nations Perspectives.

The above variables will be examined for the role they play in facilitating or challenging the implementation of the Scientific Panel Recommendations on First Nations Perspectives in Clayoquot Sound. It is important to keep in mind that all of the above described variables interact with one another, and there is a need to think about the process as a whole (Hill & Hupe 2002).

Table 1 Summary of applicable implementation variables

CATEGORY	VARIABLES
Policy Design	<ul style="list-style-type: none"> • Degree of systemic change • Provision of resources • Degree of oversight
Implementers	<ul style="list-style-type: none"> • Interorganizational relationships • Implementers understanding and acceptance of policy objectives
Target Groups	<ul style="list-style-type: none"> • Degree of support for policy objectives • Relationships between target groups
Context	<ul style="list-style-type: none"> • Economic, social, political, historical, cultural, institutional, technological

2.3.7 Interorganizational Implementation

The variables described above apply to any implementation situation - whether it is a specific policy being implemented by a single agency, or more complex situations involving multiple policies and actors. However, implementation is increasingly viewed as a complex process. "The idea that policy processes are in general an interplay between various actors and not centrally governed by government is now broadly accepted" (Hill and Hupe 2002, p. 77). The concept of networked or interorganizational implementation has been discussed in the recent literature (Hill & Hupe 2002; May 2003; O'Toole 1995 and 2003), as researchers recognize that policy implementation is increasingly an interorganizational and even cross-sectoral task. As society moves from a narrow concept of government, to more broad concepts of governance, an increasing array of actors become involved in all phases of the policy cycle including implementation (O'Toole 2000; O'Toole 2003).

This study is an example of interorganizational and cross-sectoral implementation, characterized by the broad range of actors and organizations that have been involved in implementing the Scientific Panel Recommendations on First Nations Perspectives. These actors include government ministries, forest licensees, First Nations communities, and cross-sectoral planning bodies (CRB, CSPC and TPC). As an example of interorganizational implementation, the Clayoquot Sound example illustrates some of the additional challenges involved, including that of developing relationships and other means of inducing cooperation and coordination among implementing agencies (May 2003; O'Toole 2000). In such situations, it is even more logical to look at relationship building between and among sectors and organizations as a positive result of implementation.

2.3.8 Time Frames for Implementation Analysis

An important question to consider in these analyses is the appropriate time to conduct an implementation analysis. At the time of the research for this case study, a little over seven years had passed since the government adopted the Scientific Panel Recommendations. In 1983, Mazmanian and Sabatier suggested that 7 to 10 years after the adoption of a policy is an appropriate time span within which the implementation cycle should be completed. More recent literature, however, suggests that longer time spans are more suitable. Implementation research in the early stages of a program is likely to be more pessimistic in its conclusions (Stoker 1989). Sabatier has more recently proposed that timeframes of 10 to 15 years are more useful for implementation analysis (deLeon 1999; Matland 1995; Sabatier 1993; Winter 2003). Schneider (1999) explains the paradox that while it is important to focus on impacts, which may take some time to appear, it is also important to do implementation analysis at the time that change is occurring in order to be useful to policy makers. The difficulty with doing so is that there may be few visible impacts at that point (Schneider 1999).

There is often an 'implementation lag', the time taken between policy adoption and actual program implementation. Hence the start point for an implementation analysis shouldn't necessarily be considered to be the point at which the policy is formally adopted by the authority (Morah 1990a).

According to Mazmanian and Sabatier's (1983) model, the implementation cycle ends with revision of the policy. This hasn't happened yet for the recommendations on which this case study is based, so the end of the first implementation cycle has not been reached. Hence, the conclusions made from this study can't be seen as final conclusions regarding the impact of implementing the Scientific Panel Recommendations on First Nations Perspectives in Clayoquot Sound.

Because of the wide variety of issues involved in implementation analysis, the majority of this thesis focuses on the primary themes brought forward in the FNSPRs. The frameworks discussed in this section are applied to the results of analysis in Chapter 6.

CHAPTER 3: METHODS

3.1 CASE STUDY

This research project is developed around an in-depth case study of the Clayoquot Sound Scientific Panel Recommendations on First Nations Perspectives. A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin 1994), as is the case in this particular study. Case studies are valuable because they contribute uniquely to our knowledge of individual, organizational, social and political phenomena. As King and Keohane have stated, case studies are an important research tool in studies of policy; they are essential to description and therefore fundamental to social science (King *et al.* 1994).

In his book on case study research, Robert Yin states that the choice of research strategy should depend on the following three factors: the type of research question, the control the investigator has over behavioural events, and the focus on contemporary as opposed to historical phenomena. Case studies are the preferred strategy when “how” or “why” questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real- life context (Yin 2003).

It is important to note that results based on case study research are inherently contextual, and conclusions made from a single case study cannot be generalized to the broader population (Stake 1994). Therefore, issues that arise in the implementation of the Scientific Panel Recommendations on First Nations perspectives in Clayoquot Sound would not necessarily arise in other situations where there is an attempt to incorporate First Nations values into forest management.

In interpreting this case study, it is also important to recognize that factors that help with implementing policy under one set of conditions can exacerbate already existing problems under another (Matland 1995). So the results of this case study are not generalizable to elsewhere, unless

there are very similar conditions. However, as Schneider (1999) and Winter (2003) have noted, case studies are valuable on their own, regardless of the possibility for generalization.

“Perhaps there will be lessons from these kinds of implementation studies that are generalizable to other policies, other time periods, other contexts - but if not, then at least the studies will have improved the capacity of this policy, and these implementers, to produce more desired policy outcomes. And that is a goal worth pursuing.” (Schneider 1999, p.5)

3.2 DATA COLLECTION

3.2.1 Interviews

An interview can be defined most simply as a conversation with the purpose of gathering information. Interviews are effective methods for certain types of research questions, such as when the researcher is interested in understanding the perceptions of participants, or in learning how participants come to attach certain meanings to phenomena or events (Berg 1998).

Interviews can be standardized, unstandardized, or semi-standardized. In standardized interviews, there is a formal schedule of questions that are asked in a particular order, with a particular wording. Standardized interviews are used when the researcher has fairly solid ideas of the information they want to uncover in the interview, and thus is comfortable that the questions are sufficiently comprehensive to elicit all relevant information from all subjects. In unstandardized interviews, there is no schedule of questions, as the interviewer does not know in advance what all the relevant questions are. The interviewer starts with a general line of inquiry, and develops questions as the interview proceeds. In a semi-standardized interview, the interviewer has a list of questions or topics to be discussed in a particular order, but the interviewer can probe beyond the initially prepared questions, and can digress or jump forward to other related questions (Berg 1998).

Semi-standardized interviews with open ended questions were chosen for this case study. People from the following sectors were interviewed:

- **Forest Industry:** International Forest Products (Interfor), and Lisaak Forest Resources (Lisaak)
- **Provincial Government:** the Ministry of Forests (MOF), and the Ministry of Sustainable Resources Management (MSRM)

- **First Nations:** the Ahousaht Nation, the Hesquiaht Nation, and the Tla-o-qui-aht Nation
- **Central Region Board:** provincially appointed members and First Nations representatives, as well as co-chairs and staff.

The interview questions were developed based on the three main themes of the Scientific Panel recommendations on First Nations perspectives: incorporation of traditional ecological knowledge (TEK) in forest management, protection of culturally significant areas (CSAs), and First Nations participation. A different interview schedule was prepared for each sector listed above. The questions address the same themes, but have been adjusted to the sectors role in the implementation process. In addition, within the First Nations sector, there are some differences between the interview schedule for the Ahousaht Nation and the interview schedules for Hesquiaht and Tla-o-qui-aht Nations, reflecting the fact that the draft watershed plans released to date are in Ahousaht's territory. Interview schedules are included in Appendix II.

Following semi-structured, qualitative interviewing techniques, additional questions were asked where appropriate in order to probe further into the subject's responses as each interview proceeded. The order of questioning was not strictly enforced; if the subject brought up something in one response that lead logically to another question later in the interview schedule, that question was asked in sequence. This was done to avoid later repetition and to keep the flow of conversation as smooth and as comfortable as possible for the interviewee, as recommended by Babbie (2001).

For each sector, a pretest of the interview questions was conducted, and interview schedules were adjusted according to feedback given by the pretest participants. Pretest subjects were chosen from people who were current or past members of that sector, but were not actors within the case study at hand, so as to avoid pretesting any potential interview subjects.

The interviews were conducted in September, October, and November 2002. Locations for the interviews were determined based on convenience for the interviewee. Most often, this was in their office or at their place of business. On several occasions, interviewees preferred to do interviews in

their home, or in the guesthouse where the researcher was staying, or at a local restaurant. The location of the interviews had no noticeable affect on the quality of the interview responses. However, interviews taking place outside of the office environment tended to have more interruptions, and hence it was possible that the interviewee was distracted at times and unable to follow a response to certain questions through to its natural completion. Because of this, it is possible that some data was missed in these cases. On the other hand, interviews in the office environment were also prone to occasional interruptions due to incoming phone calls. The length of interviews varied from 20 minutes to 90 minutes. All interviews were recorded on audiotape, with the exception of one instance where the interviewee chose not to have the interview recorded; in this case, detailed notes were taken during the interview instead. Most interviews were done on a one-to-one basis, but in two cases - one with lisaak and one with Hesquiaht - two subjects were interviewed simultaneously, as the subjects felt that they had complementary knowledge that could be best conveyed collaboratively.

3.2.2 Sampling

Subjects for this study were chosen using a "Purposive Sampling method." Purposive sampling is a common approach in political science research. It involves selecting a sample based on knowledge of a population and the purpose of the study. It is often used to study a small sample of a larger population in which many members of the subset are easily identified, but where the enumeration of all of them would be nearly impossible (King *et al.* 1994).

Purposive sampling is an appropriate sampling method for this research because although it is not possible to get a "sampling frame" of all the people who have been involved with implementing the Scientific Panel Recommendations, some of the major players from each sector can be easily identified. After making initial contact with key individuals from each group to be interviewed, a potential list of subjects was obtained. This list was comprised of people that are now, or have been previously involved in implementing the recommendations.

Interview subjects chosen met one or both of the following two criteria:

- The subject is or has been directly involved in implementing the scientific panel recommendations (since 1995).
- The subject is currently involved in forest management or planning in Clayoquot Sound (or has been at some point since 1995).³⁰

A purposive sample is a non-probability sample, because it does not allow one to determine the exact probability that each member of the population has of being selected into the sample. Although quantitative researchers prefer probability samples, particularly random probability samples, qualitative researchers often choose not to use random selection, in order to ensure that they don't miss important cases that may not have been chosen by random methods. Furthermore, due to its intrinsic nature, random selection can result in a more biased sample than intentional selection methods in small study populations (King *et al.* 1994).

It is nonetheless important to address and avoid selection bias in purposive samples as much as possible (King *et al.* 1994). Selection methods must allow for the possibility of variation in the dependent variable, which in this case is the subject's perspective on the relative success of the implementation of the Scientific Panel Recommendations on First Nations Perspectives. By dividing the sample into sectors (Government, the Forest Industry, First Nations, and the Central Region Board), and by interviewing several subjects from each sector, it was assumed that the whole spectrum of variance in perspectives on the research questions could be captured.

The snowball method (Babbie 2001, p.180) was used to broaden the initial list of possible participants provided by key contacts from each group. At the end of each interview, the subject was asked to identify other possible subjects in their group (i.e. Interfor or the Tla-o-qui-aht Nation). This guarded against potential biases of initial key contacts regarding who should be interviewed from their organization or group. Following the purposive sampling technique, the number of people required for

³⁰ After a list of subjects was developed using these criteria, the subject's availability for an interview and their interest in participation, determined which potential subjects were actually interviewed.

interviews in each category was not predetermined; rather, individuals were interviewed until it was found that the return of new information or perspectives for each successive interview had disappeared.

The number of people interviewed in each sector was also affected by practical factors including the availability and willingness of potential subjects to participate in the interviews, as well as the constraints imposed by the study timeline and budget. The number of participants in each sector is shown in the following table.

Table 2. Number of Interviewees by Sector

(Numbers in brackets are additive; the first number includes interviewees that belong to more than one sector)

Sector	Number of Interviewees
First Nations	18 (15)
Government	5
Industry	8
CRB	6 (4)
Total	32

Although the number of interviewees in groups within sectors was omitted to protect subjects' confidentiality, it is important to note that the number of people interviewed in each group within specific sectors was not held constant; this is particularly true in the First Nations sector. More subjects from Ahousaht were interviewed than from Hesquiaht or Tla-o-qui-aht for the following reasons.

The first reason was that since all three draft watershed plans that have been released are within Ahousaht's territory, it was likely that they have had the most experience with implementing the Scientific Panel Recommendations. Secondly, the Ahousaht nation is a much larger community than the other two First Nations in Clayoquot Sound, and thus they have more people involved in forest management, and more individuals who have had experience with implementing the Scientific Panel Recommendations. Finally, the key contact at the Ahousaht Nation was very supportive, which

facilitated the researcher's access to community members. The key contacts in the other First Nations took longer to respond to a request for research support.

In addition to the interviews, further data collection was done via observation of meetings. Three public input meetings were attended and observed by the researcher. These meetings were lead by the Central Region Board and the Technical Planning Committee, where they received comments from interested members of the public regarding the draft watershed unit plans. The meetings took place in September in Tofino, Ahousaht and Ucluelet. The researcher also attended 2 meetings of the Central Region Board (open to the public), and one meeting of the Technical Planning Committee (by invitation), in order to observe their operating procedures and the extent of participation of First Nations members.

Additional data was also collected through informal conversations with community members using ethnographic methods. It was not feasible to record meetings or informal conversations, but notes were taken in each case immediately following the event. These notes were included in the data analysis to complement interview information. No direct quotes are included from informal conversations or meetings, due to ethical protocols concerning informed consent.

It is important to note that for all interviews with Ahousaht members, a research assistant from Ahousaht was present. This was a necessary condition for conducting research in Ahousaht. It is possible that the presence of a community member in the interviews could have affected responses, either positively in that interviewees may have felt more comfortable talking to him than to an unfamiliar researcher, or negatively in that they may not have trusted that their responses would remain confidential. It would seem, however, that interviewees from Ahousaht were just as candid in their responses as interviewees from other groups. The presence of the research assistant did not appear to have a positive or negative influence. It should be recognized that the research assistant was invaluable in gaining access to subjects that may not have been interested in participating, had the researcher approached them alone.

3.3 DATA ANALYSIS

All interviews and notes from observation of meetings and informal conversations were transcribed. The content of the transcripts was analysed using a qualitative data analysis program called ATLAS/ ti, version 4.1. This software is a tool designed for qualitative analysis of large bodies of textual, graphical or audio data, that was developed based on Grounded Theory methodology (Muhr 1997).

The Grounded theory method was developed by Glaser and Strauss in 1967. It involves recognizing the interplay of experience, induction, and deduction (Babbie 2001). In a study following the grounded theory method in its most pure fashion, the researcher decides on a field of interest to study; and the key issues, actual research questions, and hypotheses are then developed through the iterative process of data collection, open coding, theory development, more data collection, more coding, and so on. Hypotheses and theories about the data develop as coding proceeds, and are tested by coding further data (Strauss 1987).

This research project does not exactly follow the inductive basis of the grounded theory method, since the initial set of interview questions was developed based on a specific set of recommendations. However, through ATLAS/ti, the mechanics of grounded theory (coding, memoing, and theory development) were used to analyze the data.

Given time and resource constraints for this research, only one round of data collection was done, but iterative coding was done to ensure that the codes developed fit with all the data. Initially, transcripts were coded openly, following the grounded theory method, meaning that passages from transcripts were given codes to represent the theme that the passage referred to. One passage was often given more than one code, if the passage addressed multiple themes. After the initial open coding of all the transcripts, codes were sorted into categories (or *code families* according to ATLAS terminology), based on the research objectives.

Memoing is the process of making analytical or theoretical comments about the data as the coding proceeds. Memos are also stored in ATLAS, and are a valuable tool for keeping track of key ideas that

developed as the coding proceeded. Memos are then used as building blocks for writing up the results and analysis. The theory development component of ATLAS involves developing networks. Networks are groups of codes and / or memos that are linked together. Networks were used to help organize codes into categories (families), and to see how codes related to one another. Networks were useful in writing to ensure that related aspects and perspectives on themes (or *code categories*) were addressed in the section of the report relating to that theme.

Once the codes were organized into code families, and the transcripts were recoded to ensure that all relevant passages to the emergent code families or themes were coded into the correct categories, the writing of the results could begin.

In qualitative data analysis, analysis continues into the writing phase. The process followed was described in Rubin and Rubin (1995), whereby they recommend arranging all data with the same code together, allowing one to refine what a concept means, compare examples of a theme, or piece together the separate events in a narrative. This allows an opportunity to figure out what aspects of a theme seem to go together or contradict each other.

For each theme to be discussed in relation to the research objectives, all of the quotations that had been coded into that category were reviewed. In conducting this exercise, it was intended that trends and differences in perspectives among interviewees from a given sector would be identified, as would contrasts and comparisons of perspectives between interviewees from different sectors. This allowed a summarization to be constructed of the various perspectives of interviewees on a particular theme, in a way that recognized the spectrum of variation of responses of different interviewees. This also addressed the relevant contrasts, while allowing generalizations to be made where interviewees' opinions on a theme were consistent. This analysis was done using the *query* function of ATLAS, which allows one to create a list of all quotations for a particular code, group of codes, code family, or any combination thereof. Representative quotations were selected and included in the results, to demonstrate interviewees' perspectives on each theme.

Following the University's ethical guidelines for research involving human subjects, a confidentiality

and informed consent form was signed (or reviewed and orally consented to) by each interviewee prior to the interview, stating that they would not be identified by name in any publications arising from the research, and that the interview transcripts would be kept confidential. Therefore, quotations used are not attributed to individuals, but rather to a member of a group (such as the Ahousaht First Nation, or the Ministry of Forests). Each interview was given a code number, and the code number is presented in brackets after each quote presented in the results.

Because this research is cross cultural, in that it involves incorporating First Nations values into the provincial model for forest management, it is important to note that the author of this study comes from the scientific, western worldview, and not the First Nations worldview. This follows the policy sciences method, as recommended in Clark and Willard's approach to policy analysis, whereby it is important for analysts to clarify their standpoint relative to the issues under examination, and relative to the standpoints of the participants in the policy process, in order to account for their own biases in their analysis (Clark and Willard 2000).

It is important to acknowledge the perspective of the researcher in qualitative policy research, because it influences both what questions are asked, and the way that responses are analyzed. It became evident in some interviews with First Nations participants that some of the questions used in this study did not make sense according to their worldview. Although the interview questions were pre-tested with a First Nations person, this person was also familiar with the western academic approach to research, and thus did not identify these questions as problematic. This points to the value of collaborative research when doing social research in a culture different from one's own. In this particular case, given the necessary extra time and resources, it would have been beneficial to develop the interview questions with people from the First Nations communities where the research was to be conducted.

Equally important factors in this research are the different interpretations of interview responses that people from different worldviews will likely make. Thus, in reading the results section, it is important to keep in mind that the analysis is from the perspective of an academic, trained and experienced in the

western scientific worldview. It is possible that an individual trained and experienced in a First Nations worldview may analyze and interpret the interview responses quite differently.

Finally, it should also be noted that the author is not an expert on some concepts that arise in the analysis of interview transcripts such as Hahuulhi, the Nuu-chah-nulth traditional system of land ownership, governance, and management, and traditional ecological knowledge. The author's basic understanding of these concepts was derived from descriptions in the report of the Scientific Panel itself, as well as from information shared by First Nations participants, in addition to available information and literature on the subject, such as the work of the Long Beach Model Forest's TEK working group. As some interviewees expressed, it is impossible to really understand TEK and Hahuulhi without living it and experiencing it. So, where these concepts are referred to, it is again important to keep in mind the perspective and background of the researcher.

CHAPTER 4 RESULTS AND ANALYSIS: OUTPUTS

4.1 ORGANIZATION OF RESULTS

The results will be divided into three chapters. Chapter 4 will describe the efforts (outputs) of each sector to implement the recommendations (government, industry, First Nations, CRB, and planning committees). Chapter 5 is organized around the 3 themes of the recommendations: First Nations participation, protection of culturally significant areas, and incorporation of traditional ecological knowledge. For each theme, perceived impacts of the outputs described in Chapter 4 will be presented, followed by challenges and facilitators affecting the possibility of successful implementation. Chapter 6 presents perceived impacts, challenges and facilitators that relate to the implementation of all three themes of recommendations, as well as summaries of all the challenges and facilitators by theme, by type, and according to the implementation framework and variables presented in Table 1.

Challenges and Facilitators

A common theme throughout the results and discussion is that of 'Challenges' and 'Facilitators.' Simply stated, these are factors that affect whether the recommendations are being implemented or not (outputs), and why those implementation efforts have been effective or not (impacts). A *facilitator* is a factor that makes successful implementation easier. A *challenge* is a factor that makes successful implementation more difficult.³¹

³¹ It is important to emphasize that challenges are not insurmountable, they are just factors to be considered that create difficulty for implementation. The challenges and facilitators discussed are based on my interpretations of the interview responses. Thus, although I try to be as objective as possible, my cultural bias no doubt affects my analysis, and a First Nations person might interpret the interview results in terms of what factors and challenges arise quite differently. Therefore, the reader must remember that I am speaking from my own cultural perspective, which is a western perspective, trained in science. This is especially relevant when I speak about "cultural challenges". What I mean by "cultural challenges" is that a particular factor is a challenge because it is a cultural *difference* from the paradigm in which the recommendations are being implemented, which is based on the western worldview. I do not intend to make any value judgments about the cultural differences themselves.

An awareness of challenging and facilitating factors should help implementing agencies to smooth the implementation process. Some of the challenges are historically based and are thus intractable, but some of them can be proactively addressed. And even for those that are historical and intractable, it is important to recognize them so that when roadblocks and slow progress are encountered, it is not misinterpreted as a lack of effort or failure on the part of implementing agencies.

Goals and Objectives of the Recommendations

Before launching into the results and discussion, it is important to briefly discuss the nature of the goals and objectives of the FNSPRs, and the structure of the recommendations themselves, to show why the traditional implementation analysis variable of goal achievement was not an appropriate measure of success for this case study.

Goals and objectives provided in Report 3 are quite vague and ambiguous. Most of the objectives and goals contain words that are open to interpretation, without clearly defined parameters, such as "respect", "accommodate", and "consult". Depending on who is implementing these objectives, industry, government, or First Nations, they will have different expectations of what they mean, and what their implementation would entail.

As with the goals and objectives, many of the recommendations are also written in a vague manner that is open to interpretation (see Appendix I). This is likely because the Scientific Panel did not expect the reports to be implemented as a whole. They were intended to give general ideas to government, and for the government to develop and legislate more specific standards.

Some interviewees noted the problems created by the government's decision to adopt the reports and recommendations in their entirety as policy. An interviewee from Interfor said:

"They never went that next step. And said Ok, you know let's digest these recommendations and develop a new standard, they just spewed out the raw material and said- here go through this, and that's what we've been struggling with. It was never like a finished format, there were lots of things that we're left open to interpretation, and there's people disagreeing on the meaning of what words mean" (17)

The Scientific Panel Recommendations are a complex and extensive set of over one hundred and twenty recommendations presented throughout more than 500 pages of text, in five separate reports. The FNSPRs include 27 recommendations, in various categories (See Appendix I). The recommendations are somewhat repetitive, and overlapping.

The scientific panel reports set up adaptive management as a premise for implementation of its recommendations. The panel's general principles recognize the need for standards to be able to "accommodate new information and changing social values" (Clayoquot Sound Scientific Panel 1994a). This also indicates that the approach of looking at the achievement of original goals and objectives, and looking at the achievement of the recommendations exactly the way they are written, is not appropriate for this study.

The above discussion explains why the adaptive, incremental approach was adopted to analyze implementation success in this study, which allows for a broader spectrum of impacts to be considered as positive results of a policy.

4.2 OUTPUTS BY SECTOR

Outputs are activities of implementers and implementing agencies. Implementation outputs of each sector will be described in this section. Information presented on outputs was summarized from responses of interviewees from the respective sectors. Some outputs apply to all themes in a comprehensive manner, but where appropriate, outputs will be organized according to which theme of the recommendations they relate to: First Nations participation, CSAs or TEK.

4.2.1 GOVERNMENT OUTPUTS

Activities of government implementing agencies have contributed to implementing the recommendations that relate to inventory, mapping, planning, and consultation. Most of their activities in these areas affect the implementation of all three themes of the recommendations in an integrated fashion.

Initial Government Implementation Agencies: CDC and CIT

After the official adoption of the SPRs by the government in 1995, the government set up several new committees in charge of overseeing the implementation of the SPRs in Clayoquot. At the upper level, the Clayoquot Deputies Committee (CDC) was created. The CDC was comprised of the deputy ministers of the relevant natural resources ministries (forestry and environment), along with the deputy ministers of Small Business, Tourism and Culture, and Aboriginal Affairs. This committee was charged with determining the government's role in implementing the SPRs, overseeing implementation activities, and dealing with any cabinet level decisions that had to be made as a result of the SPR implementation.

The CDC created another committee to carry out the implementation of the SPRs, the Clayoquot Implementation Team (CIT). The CIT was composed of regional managers from each of the ministries represented in the CDC. The CIT's mandate was to work with local communities and First Nations to implement the SPRs. They met once per month to review the implementation of the SPRs. The CIT required joint sign off by the statutory decision makers from the MOF and the MOE in all its official operations. The CIT worked with the Central Region Board (CRB), and the Central Region Tribal Council (CRTC) in devising methods to implement the panel recommendations. The CIT and the CRB together comprised the first Clayoquot Sound Planning Committee (CSPC), whose activities are discussed below.

An interviewee from the MOF and past member of the CIT explained the CIT's main role in the first 2 or 3 years of its existence as follows:

"[The job of the CIT was that of]...interpreting the SPRs and trying to come to a common understanding of what it meant. To identify where we need to do inventories, what work needed to be done- constant workshops, bringing in experts to discuss different aspects of the Science Panel, trying to understand, you know what was required and then developing a, kind of a working- a process by which we could not only do the plans, but also...you know get the interpretations, like you know a common understanding of what all these requirements were."
(23)

The CIT was also responsible for ensuring that forest licensees' existing plans were changed as necessary to meet the requirements of the SPRs, and for review and statutory approval of any new forestry operational plans. Statutory approval from both the MOE and the MOF was required for any

forestry plans in Clayoquot Sound while the CIT was in place. The MOF technical expert on the CIT was also in charge of assessing proposed cutblocks to ensure that they met the SPRs.

The CIT and the CDC were dissolved in 2000, and sole statutory authority for forestry in Clayoquot Sound was returned to the South Island District Manager of the Ministry of Forests. Implementation outputs of the CIT under the direction of the CDC included coordinating completion of much of the inventory work and digitizing the inventories in G.I.S. The CIT, through their membership on the Clayoquot Sound Planning Committee, was also involved in much of the initial work of developing the draft watershed plans for the first four watershed planning units.

An interviewee from the CRB commented that it was easy to dissolve the CIT and the CDC because they were informally created by virtue of a letter from the Ministers. In their creation, the government did not officially create a new agency, nor did it create any new statutory authority; it simply brought together statutory authority of the relevant ministries, which later were just as easily separated. Avoiding the creation of permanent organizations to implement and administer the SPRs may have been a deliberate policy design tactic used by the government to ease the termination of the policy after the crisis had been alleviated (Weimer & Vining 1999).

New government implementation structure: MOF, MSRM and the TPC

The provincial government's responsibility for implementing the Scientific Panel since the disbanding of the CIT now rests with the MOF district office on the operations end, and with the MSRM on the planning end through the Technical Planning Committee (TPC). The government's role in implementing the recommendations was gradually passed on to the TPC, which was created in 1999 to replace the CSPC. The TPC is comprised of provincial government and First Nations representatives from the 3 First Nations in Clayoquot Sound.

The TPC was tasked with completing the watershed unit plans. Government representation on the TPC was initially from the Ministry of Environment and the Ministry of Forests, but this has changed. Since the election of the B.C. liberal party in 2001, and their subsequent changes to the structure of government management of natural resources in the province, the Ministry of Sustainable Resources

Management (MSRM) is now responsible for completing the watershed plans. One representative from the Ministry of Forests continues to participate in an advisory role, for the sake of continuity.

The MSRM outputs via their 2 full time representatives on the TPC include completion of the draft watershed plans, by completing the wildlife layers, providing funding (and technical assistance where requested) for the First Nations to complete their cultural layers, overlaying all the ecological inventory information to create the draft watershed plans, and presenting and explaining the draft plans to the CRB, and local community members at various sessions for public review.

Outputs specifically addressing First Nations participation

The CIT went to great lengths to involve First Nations members in its inventory and planning activities. For all inventories that were conducted in Clayoquot Sound under the auspices of implementing the SPRs, the CIT ensured that there was a First Nations training and capacity development component, not only for archaeological inventories, but also for ecological inventory work.

Consultation: Government agencies play an essential role in implementing the FNSPRs through their role in consultation. Statements from government interviewees attest to the very extensive level of consultation that they facilitate with licensees and First Nations in Clayoquot Sound, to ensure that First Nations values are considered and incorporated into forestry operational plans in their traditional territories.³²

An MOF interviewee explained that consultation in Clayoquot Sound requires an ongoing relationship. It includes formal letters, but ongoing communication is equally important.

“...it's just an ongoing working relationship outside of that formal stuff. The formal stuff is, can be quite confusing, we send out a technical letter going you know this plan for this area, blah, blah blah blah, it's hard for me to understand, you know what that really means. Much less, you know a trapper, for the Ahousaht who, who doesn't come to Port Alberni much, much less Tofino. So it's...kind of personal encounters with the First Nations, plus we generally get a letter from the Chief and Council, either in support of or not opposing the project.” (23)

Another part of government output in the area of consultation is the aboriginal liaison position in the

³² However, consultation with First Nations is required throughout B.C., as part of the Crown's fiduciary relationship with aboriginal peoples. Therefore consultation activities cannot be directly tied to implementation of the FNSPRs.

MOF for each district office.³³ The role of the liaison is to act as a bridge between the MOF and other government agencies, forest licensees and First Nations, focusing on helping government and others to avoid infringing on aboriginal rights. This person also facilitates implementation of the FNSPRs related to employment and capacity building, by keeping First Nations informed of any employment, education, training, or funding opportunities. Although the liaison for Clayoquot Sound is also responsible for the other 29 First Nations in the district, they play a role in ensuring that the FNSPRs are implemented in Clayoquot Sound, by ensuring that adequate consultation takes place, through discussions with First Nations regarding what values need to be protected.

Outputs specifically addressing protection of CSAs

Government's most important output in this area is funding allocation for watershed planning activities, including the cultural layers that the First Nations are producing. The government spent over \$10 million on inventories in Clayoquot Sound for landscape level (1:20,000) inventory work that was led by the CIT; the government continues to fund site level cultural inventory work indirectly through the Clayoquot Stumpage additive, which allows forest licensees operating in Clayoquot to recover some of their higher operating costs associated with implementing the SPRs. Industry respondents question whether this is sufficient compensation.

³³ Again, since these liaison positions exist throughout the province, the existence of this position cannot be attributed to the implementation of the recommendations.

Outputs addressing incorporation of TEK

There have been no direct government outputs with respect to the recommendations on incorporating TEK, because government has difficulty understanding how TEK can be incorporated into forest management. This will be discussed further under implementation impacts.

Comprehensive outputs: Provision of resources

Clearly, government has made some significant contributions towards the implementation of the FNSPRs through the activities or outputs of its implementing agencies. More importantly, the government, primarily through FRBC has played a major role in funding both the planning process, and the inventory work that has been done in Clayoquot Sound, without which, resources necessary to implement the SPRs would have been extremely limited.

4.2.2 OUTPUTS OF CROSS-SECTORAL MANAGEMENT AND PLANNING BODIES: CRB, CSPC, TPC

Central Region Board (CRB)

The CRB, being the co-management board, plays the main role in implementing the recommendations on co-management. Although the CRB really plays an advisory role and does not make the final decision on management, the government generally follows their advice. The CRB measures the viability of all forest development applications against the requirements of the SPRs. If they feel that a proponent is not meeting the requirements, they will reject the application, or recommend revisions.

Through the CRB's review of development proposals, the First Nation for whose territory the development is planned has to agree to the proposal. If the proposal is in two First Nations territories or an area of overlapping claim, they wait for the First Nations to decide amongst themselves, and give them as much time as needed.

Thus, the CRB plays an important watchdog role in ensuring that licensees don't try to circumvent their consultation requirements. If the First Nation in whose territory they are operating has not

approved the FDP, the CRB will not review it; rather, they will send it back to the licensee (via the Ministry of Forests).

The CRB played a key role in planning at the early stages, as part of the initial Clayoquot Sound Planning Committee (CSPC). The CRB's specific activities on the CSPC include the following. They invited several Scientific Panel members that had been put on contract by the government to help with initial implementation, both First Nations and non-First Nations members, to give training sessions on their interpretations of what the SPRs meant and how they should be implemented. Since the change to the TPC, the CRB has had a lesser role in planning, but it is still involved as the leader of the public review process for the draft watershed plans.

The CRB also helps to implement the recommendations on recognition of TEK and Hahuulhi, in part by adopting the Nuuchahnulth model of consensus based decision-making for all their activities, which respects everyone's rights to speak and be heard. They have adopted other Nuuchahnulth traditions such as having the meetings opened by the elder with a prayer to thank the Creator, and to ask for guidance. Such traditions are an integral part of TEK.³⁴

Planning Committee Outputs (CSPC and TPC)

These planning bodies were created for the explicit purpose of implementing the SPRs. Their work has contributed to the implementation of the recommendations relating to co-management, planning, incorporation of TEK, protection of cultural areas, inventory, and mapping.

The Clayoquot Sound Planning Committee (CSPC): The CSPC developed a terms of reference for planning that was signed off by the CRTC and the CDC before any planning activities were commenced. The CSPC set up subcommittees to coordinate and carry out the inventory work that was necessary as a basis for planning.

³⁴ In addition to the 5 First Nations members on the board, there is an Elder who advises the board, in keeping with Nuuchahnulth traditions. The Elder is a non-voting member in the case that decisions come to a vote, but he participates in consensus decision-making.

The initial CSPC was composed of all CRB members, and the Clayoquot Implementation Team (CIT). Their mandate was to do the planning required in order to implement the SPRs. They decided to start with the watershed level, which had been deemed most critical by the Scientific Panel. They divided the Clayoquot Sound landscape into 14 watershed units, and prioritized 4 for developing the first set of plans. They also directed inventory work to gather baseline information for planning.

There was much debate amongst CSPC members from varying backgrounds over how the SPRs should be interpreted, and each side brought in experts to support their side of the argument.³⁵ The government disbanded the CSPC in favour of the Technical Planning committee in 1999. This decision is somewhat suspect, since the work of interpreting the recommendations and applying them to watershed plans involves value judgements, the decisions they are making are not all objective, or "technical."

Other players in the communities, including environmental groups and some CRB members, did not welcome the change to the TPC, because as a result they lost their voice in the planning process. However they had little power to influence the decision. The change is described in a recent report commissioned by the CRB. "The government decided to disband these committees in favour of a more technical, streamlined planning process, because government felt that the committees were not able to reach consensus and that there were insufficient resources available to continue the process" (Moore 2002).

The Technical Planning Committee (TPC): The TPC has accomplished the major task of pulling together all the inventory data into GIS and using this, along with the interpretations of the SPRs that were developed by the CSPC, to create the first 3 draft watershed reserve plans. They completed all the ecological layers and scenic reserve layers, and are providing funding and technical support where needed for First Nations to complete their cultural layers.

³⁵ TPC members said that some for some of the layers, there were not clear criteria given from the SPRs, so they brought in experts to advise on that. But different experts may have different interpretations. This is a reminder of the fact that science is not value neutral, and that conflicting data often makes it possible to find science and scientists who will support either side of an argument.

The TPC also has the important role of reviewing interim watershed plans that licensees produce. Until there are official watershed plans in place, licensees must create interim watershed plans that fit the SPRs as closely as possible using all available information. Interim watershed plans must be approved before they can submit any forest development plans or site level plans for review to the CRB. If the TPC finds that an interim watershed plan does not live up to the SPRs, they require the licensee to revise and resubmit the plan. Often, the cultural layer inventory information is not available or incomplete, so the interim plans are done with the best information available through consultation with First Nations. According to an MSRM interviewee, First Nations for whose territory the interim plan is prepared essentially have veto power:

“...any interim watershed plan that is prepared by licensees is being reviewed for incorporating concerns that have been identified by First Nations. And unless there's satisfaction that those things are addressed, the TPC will not endorse interim watershed plans.... There have been many cases where first or second drafts of interim watershed plans that were submitted by licensees have been sent back to them by the TPC because in many cases wildlife concerns, in other cases First Nations concerns have not been expressly addressed in those plans. So usually what needs to happen is the First Nations in whose territory the interim watershed plan is prepared, basically needs to be on record stating that there's no- that they don't have concerns with the interim watershed plan- that they support it.” (31)

Apart from the cultural layers, it is hard to say to what degree TEK was incorporated into the plans. However, as some interviewees said, TEK was incorporated into the SPRs themselves due to First Nations participants on the panel, and also through First Nations participation on the CSPC when initial interpretations were made.

The TPC said that the SPRs were clear for certain values, and these could be easily translated into reserves for those layers, such as the hydrospheric layer. For other values, such as terrain and ecosystem representation, the SPRs were less clear, and they had to call in experts to help develop criteria for reserves. The experts they called in were generally academics with a western scientific background. From interviews with government and First Nations members of the TPC, it seems that they did not call in First Nations experts with TEK in these areas to advise on these issues. That may have been a lost opportunity for incorporating TEK.

4.2.3 INDUSTRY OUTPUTS:

Iisaak and Interfor are the 2 major licensees operating in Clayoquot Sound. Licensees have contributed to implementing the recommendations on co-management (through the development of protocol agreements), consultation, planning, employment, and education and training. Through their activities in these areas, licensees have advanced the attainment of the objectives of all three themes of the recommendations.

However, interviewees from Interfor emphasize that their outputs cannot be attributed to the FNSPRs alone; there have been significant changes in these areas across their operations in British Columbia. It is hard to say what is and what is not a result of the SPRs, as their implementation cannot be analyzed in isolation from the broader context in which they are implemented. According to one interviewee from Interfor, a lot of their initiatives in this area cannot be attributed to the SPRs; instead, as he says, "it's just good politics." (12) This will be discussed further in the section on contextual variables that affect the possibility for implementation success.

Industry outputs that contribute to the recommendations on First Nations participation will be presented first, followed by the outputs relating to the recommendations on protecting cultural values and incorporating TEK. Throughout this discussion, it will become evident that some outputs affect all three areas, so the separation is somewhat artificial for the sake of organization.

Outputs addressing First Nations Participation

Industry outputs in the area of First Nations participation can be further divided into the following categories; development of protocol agreements, employment, education and training, consultation, and planning.

Protocol agreements: Both licensees have developed or are in the process of developing protocol agreements with each First Nation. These protocol agreements represent an agreed upon working relationship, and govern how the company and the First Nation will work with one another. The agreements apply to all aspects of industry involvement with First Nations discussed below. The protocol agreements are confidential between the industry and the First Nation.

Employment: Both licensees have made significant progress in this area since the SPRs came into place in 1995. Interfor and lisaak are different cases, since lisaak is majority owned by First Nations.

Interfor has done many things to employ more First Nations in their operations. The first and most significant step may be the hiring of liaisons from each of the First Nations in whose traditional territory they operate. The role of the liaison is to represent the needs of their nation in the field when cut blocks are being laid out, to ensure that the correct people from the First Nation are consulted regarding any plans, to ensure that their input is incorporated into plans, and to see that their values are protected on the ground.

There is confusion among interviewees from other sectors about whether the hiring of liaisons was a result of the FNSPRs or not. An interviewee from Interfor confirmed that they have been hiring liaisons to improve communications with First Nations both inside and outside of Clayoquot Sound since 1992, thus the liaisons should not be viewed as an impact of the FNSPRs. However, many First Nations, CRB and government interviewees thought that liaisons were only hired after the SPRs came into effect, citing this as one of the most significant outputs from the FNSPRs.³⁶

Another initiative of Interfor in this area is the Community Involvement Pilot Projects (CIPP) they developed. A CIPP is an agreement between Interfor, a contractor, and a band or local community. It's a mechanism to get more local community members working. In addition to the direct benefits of employment, these agreements can lead to positive relationship building between contractors and communities, and develop capacity in First Nations communities in forestry business operations.

In addition to the liaison, Intefor hires First Nations members to work on inventories for culturally modified trees (CMTs) and other archaeological features that legally require protection under the

³⁶ An Interfor interviewee explained that the original role of the liaisons was to communicate with First Nations regarding CMTs, due to the change in the Heritage Conservation Act in 1994. However since the FNSPRs came in, the liaisons now deal with a broader spectrum of cultural values.

Heritage Conservation Act and the Interim Measures Extension Agreement (IMEA). This will be discussed further in relation to outputs to protect cultural values.

lisaak has First Nations members employed throughout the organization, from the board of directors level down. They have an employment protocol included in their shareholders agreement. It states that lisaak hires local First Nations individuals who are qualified first. The protocol includes the goal of reaching 50% First Nations employment in 10 years, and interviewees from lisaak feel that they are well on their way to meeting or beating that goal.

lisaak hires First Nations crews to conduct their CMT inventories and other cultural value identification work; they also hire First Nations members as fallers where possible and on their engineering crews. lisaak also has a liaison person from each First Nation in whose territory they operate who serves a similar function to the Interfor liaisons, although the liaison for lisaak theoretically plays a less critical role, since each First Nation also has a representative on the board of directors and thus First Nations interests should be represented in all of lisaak's plans.

Education and Training: Both Interfor and lisaak have paid to send local First Nations members to college for forestry diplomas. This is part of their capacity development role, to enable them to hire First Nations into higher-level positions, and to enable First Nations to consult more meaningfully on FDPs and other technical forestry plans. Provision for such education, as well as for on the job training in harvesting operations, are included in protocol agreements.

Consultation: The FNSPRs do not define how consultation should be done. Licensees are flexible and will consult with each First Nation in the way that they prefer. This flexibility is exemplified in the following quote from an industry interviewee:

"We work within any framework that the band decides. And it changes. It evolves. People change, band administration changes... basically, I can't tell the band how to organize, so I submit plans and I respectfully request comment back." (17)

Consultation outputs of the two licensees are similar, but there are some differences, again owing to the fact that lisaak is majority owned by First Nations.

lisaak has a policy of meeting with each First Nation twice a year on a formal basis and informally more frequently than that. In the formal meetings, they go over maps and discuss their potential plans with the First Nations for areas that they are thinking of harvesting; this allows them to get feedback up front, before drafting any development plans. Interviewees from ***lisaak*** emphasized that consultation involves constant contact and interaction with the First Nations in whose territories they are operating.

“...we continually go back to them as that area has been, like if they said yes, you can go in there but not at this particular spot, well every time we go into a new phase we show them the map and we show them the way the block is configured- you know and they get the final say. If they decide at the end of it that they've changed their mind and they don't want us in there then we don't go in there...So the initial yes- does not mean yes throughout the process, it means yes you can proceed to the next phase.” (15)

lisaak has never had a First Nation change their mind late in the process; however, if they did, company representatives say the wishes of the First Nations would be respected, even if it meant canceling or dramatically changing planned operations.

lisaak consults with hereditary chiefs as well as the elected government, showing that they recognize and respect Hahuulhi.

“...there's gotta be an endorsement from the hereditary chief and the elected chief and council. If the hereditary chief says yes and then the chief and council says no then it's no. If the hereditary chief says no- it's no.” (15)

An important component of Hahuulhi is ownership, so to really respect it, the First Nations in whose territory you're operating must be given a veto. If they aren't allowed to make the final decision on whether or not operations will be carried out, their Hahuulhi is not being fully respected.

Interfor interviewees also stated that their consultation activities involve constant communication with the band councils, via their liaison people. Their protocol agreements with each First Nation detail how the consultation process will proceed.

Both licensees note the importance of consulting as early as possible, to avoid loss of resources (time and money) from planning in an area that turns out not to be operational from a First Nations perspective. Early consultation is also helpful in the preparation of interim watershed plans. If they know about First Nations culturally important areas up front, they can maximize the overlap of old

growth and other reserves with the areas that need protection for First Nations, allowing them to maximize the remaining harvestable area.

Planning: Industry outputs in planning address all three levels of planning required by the scientific panel: subregional, watershed, and site level.

The FNSPRs on planning overlap substantially with the recommendations on consultation. First Nations are involved in planning through the consultation processes that were detailed above. In addition, industry has developed some specific planning processes in conjunction with implementing the SPRs, which are detailed below.

lisaak and Interfor both have to develop interim watershed plans that are reviewed by the TPC before any FDPs for that watershed unit can be approved. Licensees are often missing the First Nations cultural information in their interim watershed plans, so they are given conditional approval and must consult with First Nations at the site level. Therefore planning around cultural areas is primarily done at the site level, in the absence of completed watershed unit plans. Licensees use available inventories where possible (i.e. Golder and Associates and Kennedy- Bouchard)³⁷; in addition, Interfor has developed their own subregional planning processes in the attempt to inventory cultural values while waiting for the completion of official watershed plans.

One such planning process is called the DOT process. Through this process, maps are made available to all community members (First Nations and non-First Nations), and they are asked to put dots on the map showing areas that are important to them for past, present, and future uses.

Another planning process that Interfor is in the early stages of developing is called Community Cooperative Areas (CCA). They are currently in a pilot project phase with this initiative, the most

³⁷ Watershed level inventories for cultural sites and CMTs are available from Golder and Associates that were hired under FRBC as part of the process of gathering data necessary for the SP to make their recommendations. There is also specific data available from reports commissioned by previous licensees such as the 1990 Kennedy – Bouchard report commissioned by Macmillan Bloedel and Fletcher Challenge. Licensees use this information as background to their planning around CSAs. Interfor for example has input the information in the Kennedy- Bouchard report into a GIS (Geographic Information System, which is a spatially referenced database).

advanced example being with the Hesquiaht First Nation. This process is based on combining socioeconomic and environmental needs of the community. Interfor divided the Clayoquot Sound region into 3 subregions or CCAs: Hesquiaht, Ahousaht and the South End; each CCA puts the community at the centre and includes the region that affects the welfare of that community. The CCA project is based on the idea of industry working cooperatively with the community to develop business and social relationships that will help lead to socioeconomic self-sufficiency for the community. It was developed with the goal of developing positive relationships between Industry and First Nations communities that will be sustainable in a post-treaty environment.

There aren't any specific planning initiatives to add here for lisaak; their planning process is described above in the consultation section, in that they involve First Nations in planning at all levels.

Outputs addressing protection of cultural values

Forest licensees play a critical role in ensuring the protection of First Nations cultural values, as they are the ones operating and impacting the forest on the ground. Industry has been meeting the FNSPRs and protecting a much broader definition of cultural values than those with legal protection.³⁸

Since watershed level inventories exist, and since new ones are being developed by First Nations for the watershed plans, licensees' outputs as far as protecting cultural areas are primarily at the site level of planning.

Both Interfor and lisaak interviewees stated that they protect any site or value that the First Nations liaisons tell them should be protected. They don't require the First Nations to disclose information on why that site is important, or what the value is that they are protecting. This helps to alleviate the challenges related to confidentiality and family ownership of cultural sites, which will be discussed later. Industry's flexibility in this area is demonstrated in the following quote.

"...we go to the hereditary chief and the chief and council and ask them if there are any concerns about us operating in that area. And they may say, you know it's OK in this particular area and then draw a circle on the map and say I'd prefer that you don't go there. And they don't have to tell us

³⁸ Certain cultural values have legal protection through the Heritage Conservation Act, and/ or through the IMEA. The IMEA affords legal protection to Culturally Modified Trees (CMTs) by requiring industry to get written permission from the First Nations in whose territory they're operating before removing or damaging a CMT.

which one of these things (*referring to the list from Report 3*) that is. So it could be anything. It could be these things or it could actually be something else. So that way, their cultural history is protected and we just know that we don't go there." (15)

Outputs addressing incorporation of TEK

The last area to discuss in terms of industry outputs is what are they doing to incorporate TEK into their planning and management. The industry sector has not developed specific strategies to inventory TEK and incorporate it in management, but they do feel that it is incorporated via the work of the First Nations liaisons and other First Nations employees in crews operating on the ground. Industry says that by having First Nations involved, they are incorporating TEK, because when First Nations are involved in planning, they use their personal TEK.

4.2.4 FIRST NATIONS OUTPUTS

First Nations Outputs include the activities they participate in with industry and government, including all the protocol development, inventory work, consultation, liaison, and planning processes described above. It's not possible to divide their outputs into which theme of the recommendations they relate to, as they are highly integrated.

Since the SPRs primarily relate to how forestry should be done on tenures allocated by the Crown to forest licensees, it is not First Nations' responsibility to implement the SPRs. Since the SPRs include a need to incorporate First Nations values and protect First Nations interests on these lands, however, the First Nations clearly have to be involved for this to happen. Governments and licensees should provide resources to make this possible. Where First Nations have their own tenures, or are joint tenure holders as in the case of the lisaak joint venture or the Ahousaht woodlot license, they take on a primary responsibility to implement the SPRs.³⁹

First Nations play a critical role in ensuring that the FNSPRs are implemented, as they can only be implemented through their participation. This is evident in comments by First Nations interviewees who

³⁹ The Ahousaht woodlot wasn't operational at the time of this study, but Ahousaht had commissioned a forester to help them implement the Scientific Panel Recommendations in planning for harvesting. There should be no concern about the implementation of the recommendations First Nations perspectives, where they are managing the land themselves.

emphasize that they are the only ones who can protect their cultural values; licensees and government can't do it. As one interviewee from the Tla-o-qui-aht nation said,

"...licensees seem to think that they can manage it, but they can't. They shouldn't manage our cultural values, it should belong with our people" (29)

The 3 First Nations have set up resource management responsibilities in their communities differently, in order to respond to the need for their involvement in decision making, management and planning. Ahousaht has created a Natural Resources Board, which is mandated by the hereditary chiefs and the elected chief and council as caretakers for any natural resource extraction in Ahousaht territory. The board reviews all logging applications and passes on their approval or denial, or changes required to the CRB (via the Ahousaht representative on the CRB). They also have a natural resources manager, who is the contact person for forest licensees and the MOF, and has the responsibility to ensure that the SPRs are implemented in their territory. Depending on the importance of the decision, it may be made by the natural resources manager and the board, or it may need to go to chief and council. The natural resources manager must also keep the Ha'wiih (the hereditary chiefs) informed of forestry activities, and they have a role to play in decision-making. Tla-o-qui-aht and Hesquiaht have different organizational structures for dealing with natural resources within their elected governments, but the issue of hereditary and elected governments working together also applies for them.

All three nations also have their members on the CRB and the TPC (these individuals are also forestry liaisons, council members or resource managers) as part of their structure for ensuring the implementation of the FNSPRs. These members take direction from chiefs and council, and are responsible for reporting back to the chiefs and council on what happens at CRB and TPC meetings.

Ahousaht developed the 'CMT policy' to help clarify for industry what should be done when CMTs are encountered in operational areas (cutblocks). This policy also directs what should be done with other culturally important values such as medicinal plants, burial sites and other significant sites. The policy, which is confidential between Ahousaht and licensees, is intended to streamline the consultation

process, so that licensees and liaisons don't have to come to chief and council or the natural resource board and ask what to do, each time they encounter something in the field.

First Nations main role through the TPC was developing their cultural layers for the watershed reserve plans. Each First Nation developed their own process for protecting their cultural values through these plans. The main process is similar, but the outcome is different for each First Nation.

Ahousaht set up a process to interview all members on areas that were culturally important to them. The interviewers assured members up front through a signed agreement that any information they contributed would remain confidential and would only be available to Ahousaht members dealing with resource management decision-making; it would not be available to government or industry.

Ahousaht also held two public workshops where people could come and give additional input, and to decide how this information would be collated for use in the watershed plans. In these workshops, it was decided that they did not want their cultural areas to be strict reserves, in that they would not necessarily be no-logging zones. They decided on the term culturally significant areas (CSAs), and these areas were classed as special management zones. The level and type of logging activity allowed in the CSAs will be determined through consultation between the proponent and Ahousaht.

Ahousaht, for the purposes of their own confidential maps, divided CSAs into red, yellow and green zones. Red zones are no logging zones. Yellow zones are areas where if there is proposed logging activity, the family or individual to whom that area is important must be consulted in terms of how their values in that area need to be protected. Green zones are areas where Chief and Council have been cleared by the members to whom that area belongs, to make decisions on how that area will be protected where there is proposed logging activity, without the need to consult individuals or family users. These maps showing the red, yellow and green zones are not available to government or industry, or to the public. The red, yellow and green zones were amalgamated into all red zones for the maps of the cultural layers of the draft watershed reserve plans, which are publicly available. (see for example Appendix IIIC) Proponents are still required to consult with Ahousaht in the white areas of the maps, but they can expect a longer consultation process in the red zones.

Hesquiaht interviewed their members to get the information for their cultural layers. The draft watershed plan for the Hesquiaht planning unit has not been finalized yet by the TPC. Hesquiaht also hired a consultant to interpret the impact the SPRs would have in their territory, in terms of where reserves would be for other values. Hesquiaht has used the maps from this interpretation in developing their maps of culturally sensitive areas.⁴⁰

The Tla-o-qui-aht gathered information on culturally important areas from their members through an interview process. Watershed plans for units in their territory have not been released as yet. The draft for the Tofino-Tranquil watershed unit will be ready for release upon completion of their cultural layer. The Tla-o-qui-aht decided to use reserves, which will be strict no logging zones, as are the reserves for ecological values in the watershed plans.⁴¹

All 3 First Nations mentioned that their cultural layers are open to new information that arises over time; they do not feel that they will ever have collected all the information that all their members hold on cultural values, and hence the maps must be open to amendment as necessary. Also, several interviewees mentioned that they already had done some cultural values inventory work prior to the SPRs, and they built on that as a basis for these plans. Therefore, the activities of First Nations towards an inventory of cultural values should not be viewed as a result of the FNSPRs alone.

At the site level, the liaisons have the most critical role in ensuring the protection of cultural values. A key player in forest management for all 3 First Nations is their liaison person with each forest licensee. Almost all interviewees mentioned the importance of the liaison's role in the protection of cultural resources, and in ensuring that TEK is incorporated into forest operations.

The liaisons from each First Nation were interviewed for this study, and they all said that they use their own personal TEK in their work, as well as what they have learned from elders and other

⁴⁰ Hesquiaht also used this for determining what pieces of land they want to negotiate for in treaty negotiations.

⁴¹ It will be interesting to see how the different systems each First Nation has developed for protection of their cultural areas through the watershed plans will affect operations in their territories if and when the watershed plans become higher level plans. It will be a few years before any such study could be conducted

community members. They walk through cut blocks before any operations and flag cultural values that need to be protected such as CMTs, medicinal plants, and sacred parts of stream beds. They also set appropriate buffers around sites requiring protection. Buffer size is determined through discussions between the First Nations liaison and the engineers to determine how best to protect that value with minimal impact on the timber resource.

The liaison consults as needed with families that use specific areas in order to get their input on important values to be protected. In some cases they consult with the individuals directly, and sometimes via the resource manager or the councillor with the forestry portfolio, depending on the protocols developed within their First Nation. Interviewees mentioned that First Nations logging crew members also help to ensure that cultural values are protected.

The activities of liaisons and First Nations crew members should be sufficient to ensure the protection of any values that were not recorded and planned around at the watershed level. The liaison also brings information on proposed operations of licensees to natural resource managers and or chief and council as appropriate.

First Nations will play the key role in monitoring their CSAs/ cultural reserves and ensuring that licensees are not impacting them. Even though they have liaisons working with the companies who will be monitoring for cultural values during operations, they will likely also need some impartial monitoring, by members that are not on the staff of the companies, who can carry out post-harvest monitoring in order to determine the impacts on their cultural values. The resource manager at Ahousaht said that there has always been monitoring, regardless of the activities of licensees.

First Nations have also been actively trying to create more opportunities for employment and economic development for their members in the forestry sector. To this end, they are developing salvage agreements with licensees to get their members working in this field. Ahousaht and Interfor signed such an agreement in October 2002. The band manager of Ahousaht saw this as a very good opportunity for their people. Ahousaht is also active in trying to take advantage of opportunities for employment in harvesting operations. They have put together a database of potential employees,

listing their skills, in order to speed the process of recruiting for licensees. They ensure that they have people trained in CMT identification and inventory, in order that they can provide crews for licensees when this kind of work is needed for proposed cutblocks. Tla-o-qui-aht is also collecting members' resumes to put together a similar database.

First Nations were involved in the inventories for wildlife and other values that were done for the SPRs as an input to planning. First Nations elders and members were interviewed on what areas needed to be protected for species being studied such as Black bear, Elk and deer, and in that way, their TEK was incorporated into those inventories which guided the planning for those values. The First Nations representatives on the CRB and the TPC also use their personal TEK in their activities on those committees.

CHAPTER 5: RESULTS AND ANALYSIS

PERCEIVED IMPACTS, CHALLENGES AND FACILITATORS BY THEME

5.1 THEME 1: FIRST NATIONS PARTICIPATION

5.1.1 Perceived Impacts of First Nations participation

Decision-making authority

In regards to co-management and equality in decision-making power, First Nations perceptions on participation are varied. The majority of First Nations interviewees do not see themselves as equal partners in decision-making, because they feel that the district manager at the MOF still has the final say.⁴² Some interviewees mention that it is getting better due to their representation on the CRB, but hasten to add that when it comes down to it, the CRB is really only making recommendations - it's not making the final decision.

Non-First Nations CRB interviewees thought that First Nations representatives have equal if not more than equal power in decision-making, due to their double majority voting power.⁴³ However, some First Nations CRB members interviewed feel that they do not have sufficient power in decision-making, because they feel that they should have the final say in what happens in their territory, or at a minimum, equal input to government. They feel that they do not have equal input, since for example, there is only 1 Ahousaht representative and 5 provincially appointed representatives discussing applications in Ahousaht territory. They feel that for issues in Ahousaht territory, Ahousaht should have equal say. Hesquiaht interviewees echoed this sentiment. The following quotes demonstrate this view:

"Even in that process (*the CRB*); that's... we have our chief in there and we have...our voice...but yet again, it's unbalanced. The voting in there is unbalanced. So, it's not total respect, it's partial respect...you know, I'll accept that you own it- the Hahuulhi, but I'm gonna have a say in it, and I'm gonna put 10 other people in there with me to talk about your Hahuulhi...so it's not total." (10)

⁴² The District Manager (DM) of the Ministry of Forests has statutory decision-making authority. She has to sign off on all forestry plans. There is no provision for joint sign off by First Nations, although they make recommendations through the CRB.

⁴³ In its 9 years of operation, the CRB has only had to resort to a vote once, due to lack of consensus.

"If you're going to talk about Ahousaht Hahuulhi, then it should be equal say-from Ahousaht. When it comes time to vote or something- within the CRB." (10)

This difference in perception of what constitutes equal decision-making power demonstrates the different outlook that exists between First Nations and non-First Nations on land management. This is mainly due to the First Nations concept of their relationship to the land (Hahuulhi) whereby their chiefs are owners of the land, and steward it for the Creator and their people. It is also related to their position in treaty negotiations.

This outlook may account for the nature of some statements made by First Nations CRB interviewees; in that they don't comment on what should be done in each other's territories. They feel that the First Nation in whose territory the application is in should be the one making decisions. They may give each other advice, or make comments when they feel something needs to be addressed, but they never tell each other what to do.

Hence, whether or not the CRB creates equal decision-making power depends on whom you ask. The Tla-o-qui-aht especially do not feel like equal partners in decision making, due to the SB3 conflict, which will be described in the section on protection of culturally important areas.⁴⁴ As one interviewee said, when asked whether they were equal partners in decision-making:

"I'd have to say no. Cause when you talk about equal partners, you have to prove it. And I'd have to say at times when if you say no then, you're battling it. Why...if you don't want any harvesting in one certain area, then you're battling it all the way with the MOF." (29)

However, some First Nations interviewees do feel that they have major influence over whether the industry can continue to operate in their territory. As Hesquiaht and Ahousaht interviewees said:

"...as far as partners and joint management- they can respect our decisions. And I think that you know ultimately, that they can live with those decisions, because if they couldn't live with them, then they wouldn't be here." (27)

"We're having a heck of a lot more say in what happens in our territory now- which is good." (1)

⁴⁴ The SB3 conflict refers to an Interfor cutblock where the Tla-o-qui-aht and the MOF disagree on areas that should be protected for cultural reasons.

Government and Industry interviewees generally agree that although the First Nations do not have statutory decision-making authority, they do have a major influence. Through their participation on the TPC and the CRB, and through the liaisons with the companies and all the consultation that has to happen, the First Nations have a major influence on decisions that are made. Government interviewees said that First Nations have more influence on decision making here than anywhere else in the province.

As a government interviewee explained, the First Nations have equal opportunity to participate in higher level planning, but at the operational level, it's still the district manager's decision. This sentiment was echoed in the following quote from a CRB interviewee:

"...the door is always open and there's lots of opportunity for participation but they're not equal partners. It's still the statutory responsibility and authority of the ministry is never fettered by any agreement. ...so when push comes to shove, all things are said and done, the final approval does not go to Anne Atleo (*Ahousaht Chief*) or Guy Louie (*Ahousaht resource manager*), it goes to Micheal DeJong (*Minister of Forests*) in Victoria. Period. Period. End of discussion, there are no, there's no exception to that. And - so I mean there is no equality. There's a partnership, and there's lots of opening and opportunity to do it, but it's not two sides of a balanced scale." (19)

Several people from all sectors (First Nations, government and CRB) mentioned the fact that through their majority ownership of lisaak, they make decisions at all levels from strategic to operational, and therefore lisaak is the closest to an equal partnership in decision making that First Nations have in Clayoquot Sound. However some First Nations interviewees felt that even in the case of lisaak, the directors from Weyerhaeuser are still really the ones making decisions.

Degree of First Nations input to Planning

In regards to the intended impacts for planning and consultation, many First Nations interviewees feel that they have a significant input into planning now. As an Ahousaht interviewee said:

"...its coming back – so we're starting to manage it more, we're starting to be a part of the planning with regard to our resources- and extraction or harvesting of our resources- so its changing, and its coming back- and its going to get better and better. Our responsibility is going to be higher and greater for Ahousaht."(2)

Government and industry interviewees also feel that the First Nations have real input into the planning process.

"...except for a few recent occurrences- pretty well everything that has come forward from First Nations has been incorporated into plans." (23)

"...they have direct input into the planning of the land base that's out there. And that's before any development plans are developed, in other words there's input before anything is even considered." (25)

Effectiveness of Consultation

Most First Nations interviewees seemed satisfied with how they are consulted, in that they are aware of the activities of industry, and their input has an impact on the plans and operations of industry. However not all interviewees were so positive. One Ahousaht member feels that the consultation process is just a means of asking their opinions, and not necessarily acting on them. Despite efforts on the part of licensees, some First Nations interviewees do not feel that they are being consulted early on in the process, they still feel that they are only consulted when plans have already been made.

Recruitment of First Nations for Employment in Forestry

First Nations employment in forestry is important not only because of the direct benefits of employment, but also due to the following associated benefits. First, having First Nations employees in the office and in the field leads to informal, experiential cross-cultural sensitivity training for all employees. Many interviewees mentioned this as a benefit. Second, there is the added benefit of relationship building between contractors and First Nations. Once they have developed a positive relationship with them through affirmative action imposed by licensees, the contractors hire First Nations crews for other projects.⁴⁵

⁴⁵ This works to the advantage of the contractors as well, when First Nations are allocated other parts of Intefor's tenure that are not subject to Bill 13, they in turn hire the contractors that they are familiar with. "Bill 13" refers to the Timber Harvesting Contract and Subcontract Regulation of the Forest Act that requires all contracts to be replaceable. The regulation states "if the contractor has satisfactorily performed its obligations under the contract, and conditional on the contractor continuing to satisfactorily perform the existing contract, the licence holder must offer a replacement contract to the contractor". This is a constraint on them being able to offer more business opportunities to First Nations, and will be discussed later under challenges to implementation.

Some First Nations interviewees felt that industry is actively recruiting their members as employees. However, others said that it hasn't gone far enough, and more has to be done in this area. An Ahousaht member stated that their members are just trained for the lowest skill level jobs, and that there has to be more training to get them into higher-level positions. A couple of interviewees said that impacts in this area won't be adequate until 50% of the employees in local forestry operations and management are from the local First Nations.

Generally speaking, the interview results say that there have been some impacts in the First Nations participation SPRs, but there is still a long way to go in some areas. From the perspective of First Nations, the current level of participation is not enough. It is not within the scope of the SPRs to change statutory decision making authority; this would require a major legislative change by government. It is apparent, however, that only through the creation of joint signing authority would First Nations truly feel they had attained equal partnership in co-management and decision making over the forest resources.

The perspective of industry is different. As industry interviewees explain, even in the absence of statutory approval status for any forestry plans, the First Nations still have a major influence:⁴⁶

"First Nations don't technically have approval status, but they...for all intents and purposes, it would be not in our interests to not incorporate these into our planning. So we tend to do that as much as possible." (16)

"First Nations along with the government are doing the watershed plans and the whole culturally sensitive cultural reserve areas, and so they can have a major influence on whether there will be forestry or not." (12)

⁴⁶ Forest licensees in B.C. are required to produce Forest Development Plans (FDPs) annually, for a 5-year operational cycle. These are watershed level plans at a scale of 1:20,000. For particular operational sites- cut blocks, cutting permits are required, and these require site level plans at a scale of 1:5000, called Silvicultural Prescriptions. (SPs) The District Manager (DM) of the South Island district Ministry of Forests Office is the statutory decision-maker who signs off on all these plans. FDPs pass through the CRB first for approval, before the DM can sign off. The CRB does not review SPs.

5.1.2 Challenges to First Nations participation

Capacity

The most prevalent challenge to achieving equal First Nations participation in planning, management, decision-making and operations is capacity. There are two main contributors to a lack of First Nations capacity in the government's current paradigm for forest management and planning – a paradigm which forestry in Clayoquot Sound must still fit, despite the incorporation of some new innovations. The first contributor, which is discussed later in the section on TEK, is the difference in worldview between First Nations and the dominant society, from which the forestry planning model is derived. The second, which will be discussed under common challenges, is a lack of resources in First Nations communities, which results from the government's historic policies regarding First Nations since the time of contact (the policy legacy).

Many interviewees, from all sectors, mentioned the importance of this lack of capacity in regards to the ability of First Nations to become true partners in decision-making, planning and management. The lack of capacity is multifaceted. It is comprised of shortfalls in both human and financial capital. In the area of human resources, First Nations communities in Clayoquot Sound have few people with education or experience in forest management and planning as described by the dominant system in B.C. So although First Nations have an equal opportunity to participate in all planning and decision-making processes regarding forest management, their capacity to meaningfully contribute to these processes is questionable.

Government interviewees from both the MOF and the MSRM, as well as industry and CRB interviewees, said that the process used for watershed planning has been highly technical and has incorporated huge amounts of scientifically oriented inventory information. As an interviewee from the Ministry of Forests explains in the following quote, even among government there are few people who truly understand it.

"...you can't kid yourself that, you know that the level of technical understanding, makes it very difficult, to say that we have kind of a full partnership, because quite often, the First Nations people don't have the technical background... You know so, I can sit here and say to you- Oh ya- everyone had equal involvement, but, even within the MOF, the planning committee, or those of us on the implementation team, the rest of the ministry knows little bits and snippets or people came in later on. So it, it was a huge, huge undertaking. So, we were...I guess the short way to say it is both parties were there, the First Nations and ourselves. And we all had the benefit of all kinds of training and we have a lot of the stuff in the plans that we agreed to, but...and joint decision-making, but it's very very complex. ...The major challenge is that education technical gap- like you know just basically that we are constantly challenged to understand the First Nations perspective, and the First Nations are constantly struggling you know with the technical component." (23)

An interviewee from lisaak made a similar comment:

"I mean you've got a group of people sitting around the table and you've got some professional biologists and some professional foresters and some First Nations individuals that are just trying to learn about forestry and how it works, and you're getting right down into nitty, gritty, technical scientific stuff, well they get lost in it, anybody would. So it's frustrating and, and I think..it's a little bit demeaning because it isn't an equal playing field and it really is based on the scientific more than the cultural." (15)

First Nations interviewees also realize that they are at a disadvantage in terms of educational background when it comes to participating in these planning processes. As an Ahousaht interviewee said:

"I'm not technically trained to read off what- you know- I can understand maps- so not so much about that- but they get quite technical on how they use equipment- and I don't have that kind of- actually I'm a fisherman." (8)

In order to bring things a little closer to a level playing field in this regard, the FNSPRs included recommendations that educational programs be put in place both for government and industry to learn more about First Nations perspectives, and for First Nations to learn more about the government and industry's version of ecosystem management. The interviews briefly touched upon these issues, and it was quite clear that little has been done. When First Nations interviewees were asked if they have been offered any education programs from the government in ecosystem management, almost everyone said no. As an Ahousaht member stated:

"In my view there's been a lack of the educational component which we considered to be important. The education of forestry personnel on First Nations cultural lifeways was part of our recommendations. That's not being done." (7)

However, many interviewees did mention that there is a lot of education by experience occurring on both sides. Also, some First Nations interviewees said that technical capacity is slowly improving, with the younger generation becoming more interested and educated in technology such as GIS.

Apart from the education issue, there is an even more tangible reason for lack of capacity, and this amounts to the small populations of the local First Nations in relation to the whole of society both within and outside of Clayoquot Sound, which the government draws on for its inputs to planning and decision-making. The enormity of this aspect of capacity was best summed up in the following quote by a CRB interviewee.

"...to somebody from the outside it's hard to fathom that- there are more lawyers working for the provincial government than there *ARE* Nuu-chah-nulth people. So, I mean, there's a whole capacity issue that's just like totally one sided. ...There's more people on vacation from the provincial government on any given day than there are Ahousaht people. So you know it's just like- if somebody gets sick in the provincial government, somebody else just steps in. If somebody gets sick in Ahousaht, the meeting's called off." (19)

As one MSRM interviewee said, there are certain people who are highly involved in all aspects of the community, and their time is spread out between many important activities, forestry being only one of them.

"...some of the people on our planning committee, especially some of the First Nations guys are just up to here, in terms of doing everything in their particular community right?...you can be directed to consult with people, but those folks have to have the capacity to, I mean as if they're not busy enough. I mean you look at any particular First Nations community and, you know it's just like any other community, the leaders and the politicians and resource managers are few and far between.... And they're already doing a lot of extra hours, so you think well, Ok here's another thing that we want you to consult with it's....it's, I mean I feel overwhelmed and I'm not representing my community on a dozen different boards and committees and whatever." (26)

This can lead to low attendance at meetings, as well as fairly high turnover in the people involved in the planning process, and each time a new person comes in, they have to be brought up to speed before they can meaningfully participate. This observation was borne out by the researcher's own experiences during the study.

Statutory decision-making authority

Another challenge for co-management relates to the impossibility for real equal partnership in decision-making within the current structure for statutory decision making in forestry. The final decision power remains with the district manager of the MOF for all forestry operational plans. Interviewees' perspectives on this were presented earlier under impacts.

Institutional constraints: Unions/ Bill 13

Interviewees mentioned two specific challenges to getting more First Nations employment in forestry. First, Bill 13 protects contractors' access to operations, based on their 1994 percentage of work for a particular management unit (TFL). Second, forestry employees are part of the Industrial, Wood and Allied Workers of Canada (IWA), a powerful union with rules to protect its members from job loss. Seniority must be respected and union members have first access to jobs, making it difficult for licensees in Clayoquot Sound to be as proactive as they might like to be in hiring more First Nations employees at the operational level.

An interviewee from the Ahousaht nation said:

"Because of the unions- it's a pain- because of the old boys club or whatever you call it, it seems to get in the way- because we're working on something new, and it's a constant battle to get our guys involved." (4)

An interviewee from Interfor corroborated with the concerns of the First Nations in this area:

"We have- we're somewhat restricted in what we can do under the legislation in terms of hiring people to do forestry work- logging- road building- we have a responsibility to the contractors and subcontractors- under Bill 13... So it's a restriction on our flexibility. I'd love to say- Ok let's set up a logging package you know for Tla-o-qui-aht say- but I can't just go do that, I have to go to our contractor and try to entice him. And then further to that he has union obligations that restrict his flexibility." (17)

5.1.3 Facilitators of First Nations participation

Consensus decision-making

One factor that facilitates First Nations participation in decision-making and co-management is the decision-making process and protocols adopted by the CRB. The CRB uses consensus decision-

making. This was adopted from traditional forms of First Nations governance, whereby everyone has a say, and everyone respects each other's opinions and right to speak, and through this open sharing of viewpoints, decisions are met which hopefully satisfy everyone around the table.

First Nations representatives should feel more comfortable participating in a committee using consensus decision making, which is closer to their traditional governance practices than a voting system. This is why consensus was chosen as the primary vehicle for decision-making. The TPC has adopted a similar decision making process.

5.2 THEME 2: PROTECTION OF CULTURALLY SIGNIFICANT AREAS (CSAs)

5.2.1 Perceived Impacts of protecting CSAs

Enhancing Protection

With some exceptions, First Nations interviewees were generally satisfied that once the watershed plans including their cultural layers are in place, if they are used properly by their own resource managers and people involved in consultation, then their values should be protected.

Many First Nations interviewees felt that in general their cultural areas are being protected quite well already through the work of the liaisons, and the First Nations employees that are involved in operations. Although some say that there is a long way to go, they recognize that things are much better than they used to be, and they do feel that the SPRs had something to do with this. Ahousaht and Hesquiaht liaisons said that licensees cooperate on features they recommend for protection, and exclude them from cutblocks.

Some First Nations interviewees were concerned, however, that although physical values like CMTs and medicinal plants are being addressed, spiritual values are not adequately protected. As shown in the following quote from an Ahousaht member:

“...Catface mountain where- that man went up there...he used to sing a song up there...and people down here would hear it...when he was up there. And that in itself has value and...and they don't recognize that part.” (10)

Interviewees from all other sectors also alluded to the difficulty of protecting more ubiquitous values such as medicinal plants and spiritual values on the landscape, as opposed to obvious physical attributes such as CMTs. The cultural layers for the watershed plans should improve this, because people were able to include these kinds of values on the maps, and the liaisons and resource managers will have access to this information. In that way, they should be able to ensure that everyone's physical and spiritual values are protected, including some that they may not have been aware of before these inventories were available.

The Tla-o-qui-aht were not satisfied that their cultural areas are being protected. This stems at least in part from the difficulties they were having at the time of the study with getting their values protected in a particular Interfor cutblock called SB3. The Tla-o-qui-aht want some areas protected for medicinal plants and wildlife values that also contain very high value cedar. At the time of the interviews, the Ministry of Forests had not decided whether to honour the Tla-o-qui-aht Nation's wishes. It appears that the MOF and Interfor disagreed with the Tla-o-qui-aht that this particular site needed protection, because they felt that these plants and wildlife are also found in adjacent sites, and are protected through other Scientific Panel reserve criteria for protection of rare species. This points to the challenges that arise due to family ownership and use rights of cultural areas according to Nuuchahnulth traditions. This will be discussed further under challenges to protecting CSAs.

Improving Consultation

The completion of the cultural layers for the watershed plans will have a significant impact on improving the efficiency and effectiveness of consultation. The maps will impact First Nations in that they will make the process of consultation and responding to forest development plans quicker and more thorough. Since different families use different areas, and this knowledge is not shared between families, the consultation process was often slow and difficult in the past, and the liaison or resource manager may not have known who to contact regarding a particular area. With the information available in the cultural layers, they will be able to ensure the protection of areas of importance to all

families who volunteered information, without having to track people down for input for every new application.

It was very clear that all 3 First Nations think cultural areas mapping is very important and all need money to complete it for the rest of their territory. This is shown in the following quote from an Ahousaht member:

"We need to know who to consult internally about the values- how can we if we don't have that information from family groups...we've actually had it used- some of the information that was collected- we could contact the people for where they were planning on logging- we were able to contact them directly" (1)

CRB members and government representatives on the TPC all see the tremendous impact that the cultural layers of the watershed plans will have, in allowing the First Nations to more efficiently and effectively respond to development plans and other resource development activities when required.

"...to me a success of producing cultural layers is all the- from my understanding, individual First Nations have assembled all the important layers- or as many as they could. And they've hidden it away in their file cabinets now is background information for every creek, every watershed or whatever, you know the Hahuulhi, individual Hahuulhi out there, so that when a call comes, or an issue comes or a proposal comes to them, they just say, Ok, that's concerning here, and they go in the filing cabinet and say, that's this kind of area, they now have all that culture information. Because, my understanding is that before, internally it was confidential and sensitive. And now, the community- or some people in the community- now have access to that information. So it makes life easier for people that are being told- your job is you're the resource manager, or you're the forestry liaison, or you're the- so I think it- and then as a result, it makes life easier for the whole community." (26)

"...that whole planning process within Ahousaht in these first 3 plans, has been crucially important to ensure that down the way, when any forest activities take place, there's already this base of understanding of what's out there to protect. And you don't leave Ahousaht having to scramble to try to figure it out on the go. That might be too extreme a characterization but you know I think that the base of planning is going to make for an improved and more, you know less stressful kind of response in a community like Ahousaht. And if we have – once we get all 14 watershed plans done, and we have that base of knowledge, provided we work to keep it current, it should make the whole exercise a whole lot easier than it's been." (30)

Improving Planning

Although government and industry both feel that the watershed plans in general are critical for being able to plan their operations, some interviewees working on the operations side seemed disappointed that they didn't get more certainty in the CSA maps from Ahousaht. They were hoping for smaller reserved areas, rather than the large area of between 30% and 68% in each watershed unit

that is covered by CSAs. They say that such large contiguous areas do not help them much in terms of their operational planning.

Interfor interviewees felt that the existence of the cultural layers in the watershed plans will not change the way they do business, because they are already doing detailed consultation at the site level for all their operations. The CSA maps do not preclude the need for consultation on the entire land base, whether operations are planned for a culturally significant area or not. However Interfor interviewees do recognize that the maps will be valuable to Ahousaht for their own purposes in enhancing their capacity for effective consultation. The sentiments of Interfor interviewees in this regard are expressed in the following quotes:

"I don't know that that's a terribly meaningful product to look at right now. It won't change a lot of what we do. There's still a need to consult at the site level, the watershed level,... so, in the big picture I don't think it's going to make a bit of difference." (13)

"When it comes down to it, if we find a feature in a white area, we take it to the band. If we find a feature in a red area, we take it to the band. So, in that sense, you know if you find something at the site level, it really doesn't matter what the overview said, it's there and you gotta deal with it. It's not really clear, our interpretation of what that zoning is is not too clear. It's kind of like, it's the same with all overview information- it's the same with terrain mapping.. overview is kind of, it loses it's value once you go to the site level because the site level replaces it. ...the site level is most important, and the overview is just kind of a guide for the more detailed planning. So we would perhaps be more on the lookout going into a red area." (17)

lisaak interviewees felt that the cultural layers will improve their planning process, as the following excerpt shows:

"When I go over to one of the First Nations, one of the first things that we do is we'll look over the maps. Look at their maps and look at my maps and go "oh, what's going on here..." and then we talk about it" (16)

Interviewer: "So it's good for you if they get all the other watersheds done?"

"Oh ya, it'll be wonderful." (16)

5.2.2 Challenges to protecting CSAs

Confidentiality

Information on CSAs is confidential. According to Nuuchahnulth tradition, this information is not shared between families, and especially not outside the nation (tribe). This creates an obvious

challenge for protecting CSAs, since families and individuals do not want people to know where their CSAs are.

Along with the spiritual and traditional reasons for confidentiality of CSAs, (which also apply to confidentiality of TEK and are discussed further below), there is a more pragmatic reason. People are concerned about theft of cultural artefacts. In addition, if locations of sacred sites become public knowledge, First Nations worry that tourism operators may want to include sacred sites in their tours. First Nations have experienced theft of valuable articles from burial sites in the past when the locations of such sites have been disclosed to outsiders.

The following comment from a Hesquiaht interviewee demonstrates the reluctance to share CSA information with forest licensees:

"...if there is an area that isn't covered in that- I may not even say anything at that stage and here's why. Just because it's white and not protected, it doesn't mean that's where a forest company's gonna go and log. So, and then it comes into the next stage of FDP. I look at a FDP, and I look at where they plan on having forest activity. Now if there's an area that is important to Hesquiaht, and they planned on logging, then I may say something. Depending on what stage it's at. If it's at a- for your information, then I probably wouldn't say anything. If it was at a proposed stage, then, this is where I would say- Ok, I don't want you to log that, I don't want you to do that block. Then, you know they have to take that into consideration. Basically all I would say is that it's culturally important to Hesquiaht. So, it all goes back to that...I'm not gonna tell someone what's important to me, if they're not gonna do anything with it. Why tell somebody when you don't have to right?" (27)

The fact that Hesquiaht does not want to share information on the locations of their CSAs unless companies already have a plan to develop in that area is unfortunate, because at that stage if the company has to change the plan it's a loss of resources to them. It would be better if the company knew, at least roughly, the areas not to go into *before* doing any plans.

Trade offs between economic development and protecting cultural areas: Complications of family ownership.

According to the Nuu-chah-nulth's traditional land and resource management systems, different families or individuals have use rights and stewardship responsibilities for different sites for extracting resources such as medicinal plants, or food for subsistence, or wood or bark for personal use from different areas. The reason that family ownership creates a challenge for implementing the

recommendations on protecting CSAs, apart from the confidentiality of this information among families, is that different families will likely want different levels of protection for different areas. It makes it hard to establish what areas need to be protected, in terms of which areas will be no-logging zones, and what sites just need buffers, or other special management considerations. For each family, a different value and area may be most important and they may want it to be a no logging zone.

The elected government of each First Nation has economic development for the tribe as one of its goals. They must make decisions that they feel are in the best interests of the tribe, in terms of the balance between the need for economic development, and the need for protection of cultural values, but these decisions will likely not satisfy all families. Some families' areas might be impacted by forestry, in the name of economic development. If First Nations want to get benefits from logging in their territory such as employment, and profits in the case of lisaak, and their own tenures, they will have to collectively decide to make trade offs on some of these things.

Differences in Worldview:

Relationship between People and the Environment. The major differences between First Nations worldviews and the western worldview - on which planning for forest management in B.C. is based, create additional challenges for protecting CSAs. The most important difference in the worldviews, with respect to protecting CSAs, is the different positions on how people relate to the ecosystem.

A CRB interviewee acknowledges this difference in the following quote:

“...they (*First Nations*) consider themselves part of their ecosystem I think in a way that perhaps the colonized culture hasn't. We see ourselves as perhaps more in dominion over nature than First Nations do. “ (30)

This difference in worldviews is the fundamental cause of the difference in opinion between First Nations and non-First Nations regarding parks and protected areas. It is evident in Ahousaht's approach to protecting CSAs in the watershed unit plans; this Nation has abandoned strict reserves that don't allow people to interact with the land in favour of special management zones. Ahousaht's reasons for their approach to protecting their cultural areas are explained in the following quote.

"One of the sticky things in that was the interpretation of reserves- that they were going to be a no-go zone at all. As Ahousaht we felt that if we close off these areas- that would prevent not only Mamulthne but Ahousaht as well from going in there. And we felt that- not only for economics or what have you that we didn't want to shut these places down to prevent even us from going into there- so that was one of the sticky points in that area."⁴⁷ (1)

Overlap of CSAs and other reserve layers: Access vs. Protection

The above difference in worldview may create a challenge in implementing the watershed unit plans, if and when they are adopted as higher level plans under the Forest Practices Code. In the draft plans, there is much overlap between CSAs and reserves for other values. Since these other Scientific Panel reserves, i.e. for hydroriparian values or old growth values or ecosystem representation, are considered to be strict no-logging zones, this might create an issue. Future First Nations access to their CSAs may be restricted where they overlap with these other reserves, hindering their ability to gather resources for ceremonial or subsistence activities.

There are different perspectives on this. Many First Nations interviewees had not even considered this issue, because they don't see their activities on the land as damaging to any other values, so they would not even think of being excluded. This is shown in the following quotes from interviewees from Ahousaht and Hesquiaht.

"For cultural practices there's no problem for any area. There never has been prehistorically-pre- contact time. Cultural practices were exceedingly careful about habitat." (7)

"I mean, and it's our land right? So we're not gonna do anything to have any, like we're not gonna just go in there and demolish it or stuff like that." (27)

A CRB interviewee stated that the Scientific Panel reserves were never meant to exclude First Nations from any part of the land base for their cultural use, and that those areas are just reserved from harvesting by licensees. However, government interviewees did feel that First Nations access to certain reserves for certain practices might be an issue. As an MSRM interviewee said:

"...there may be cases, ya, issues...the Ahousaht wanting access to reserves for traditional purposes. But...it would have to- I think because each reserve type is individually identified, and the reason for its existence is pretty clear, any traditional use proposal could be evaluated

⁴⁷ 'Mamulthne' is the Ahousaht word for white people, or non-First Nations people. An interviewee told me that it means "people who live on the water", and was used originally used to describe the first European explorers, who lived on their ships.

for consistency with reserve objectives. ...However, as I said if it's a reserve that was identified for ecosystem representation as an intact old growth ecosystem- and the traditional use would involve- say harvesting of cedar, it would become questionable that that area would still qualify as an intact ecosystem. However it would be different if it's in a terrain reserve, like an individual cedar tree may be able to be removed without impacting the terrain stability of that area. So, it depends on the case." (31)

Several First Nations interviewees stated that they will worry about this issue if and when it arises, and are not concerned about it at the present time. However, it may be a good precaution to come up with decision rules for how it will be addressed, and include them in the watershed plans.

On the contrary, some First Nations feel that parks and SP reserves offer an extra layer of protection to their CSAs, and in that sense, this overlap issue can be seen as a facilitator rather than a challenge. This point of view is shown in the following quotes from a Hesquiaht interviewee:

"I'd have to say that a large majority of the areas that are important to Hesquiaht are already in a protected area. And that's just for the parks in general. You go to the scope of reserves- reserves in general- reserves for hydriparian, reserves for- you know landslides, reserves for forest interior conditions, take all of that, it's about 53% of the area is in that. So then if you say, 53% of it is already in reserves or parks, and then, you know- you give us a map covering that, and then say- OK- of the remainder of that, is there anything you know that you want in a reserve or a protected area? Odds are they're gonna be very small." (27)

Oral vs. written Tradition

Since the cultural values inventory is based on interviews, the accuracy of the information can be considered suspect from a western scientific worldview. Several interviews from the government and CRB sectors were sceptical about the accuracy of cultural inventory information, as the following quote from a government interviewee shows:

"...one criticism a lot of people might make of that is that a lot of it was sort of anecdotal. You know like, well my uncle used to tell me that he used to hunt in there, or I remember when I was 6 years old I saw this, and so, quite often your typical reaction is, ya well when I was 6 years old I remember...(laughing), you know so you tend to be able to, you can be kind of cynical of some of that information right? You know ya well I don't quite remember things the way they were, or how many generations removed are we from this information?" (26)

From a First Nations perspective, where oral history is the main method of passing down knowledge, there is no reason to suspect its accuracy any more than there is for ecological inventories that are collected "scientifically". As an Ahousaht interviewee said:

"The most valuable is our oral teaching. It's something that's never looked at as very significant, but that's how our children learn. That's how we learn, it's something we're able to rely on. Things, see if the old stories- things end up being trends, and if you watch- I watch really closely and you'll see that there's things in the stories that are true, and it's one of the most important things in our lives is the oral history." (11)

The fact that the CSAs are protected through watershed unit plans, which are based on maps, is in itself a challenge, because several First Nations interviewees mentioned that they are not familiar with using maps. As one interviewee from Tla-o-qui-aht said:

"...elders have a hard time reading maps. If you show them, they can't really understand. Myself too. I need to understand more what does it really mean. When they come and display the maps, there are like 10- many maps, all of the same area. They show different layers- it's confusing for us as a nation. We need to make sure people really understand." (29)

Sites with no physical evidence

Sacred sites that are used for prayer, cleansing, or other spiritual uses, contain no physical evidence of their importance for that use. This creates challenges with respect to monitoring and compliance enforcement of CSA protection under the watershed plans. It is difficult to monitor impacts on such intangible values. First Nations interviewees said that the families that use these sites will be monitoring them through regular use, and they would likely report any impacts to their nation's resource managers. Funding should be provided for First Nations to set up and run monitoring programs, if the watershed plans are to be successfully implemented as a tool to protect CSAs from logging impacts.

The lack of physical evidence also makes ground-truthing even more important, as the CSA maps will be the only information available to site level operators. If the sites are inaccurately placed on the map, there is a good chance they will be damaged.⁴⁸ Some industry and government interviewees were concerned with ground-truthing of CSA inventory information. A few First Nations interviewees also raised this as a concern. An Ahousaht interviewee felt that there was a need to check the data that was collected in interviews on the ground, to make sure that areas are correctly mapped:

"We've never gone out and ground proofed it...Like I mentioned earlier, there was no ground truthing done to verify some of the higher end of the cultural stuff- that's internal- we've

⁴⁸ The liaison and First Nations crew members might be able to guard against this occurrence, but they are likely not aware of sacred sites of all members.

discussed that we need to consult with the interviewees about the requirement for groundtruthing- how do you ground truth- with them I guess" (1)

The whole landscape is culturally significant

If you define CSAs broadly, as some First Nations interviewees did, it's difficult to protect them in the context of the watershed plans. Some interviewees stated that the whole landscape is significant to them, due to stories their grandparents used to tell them about sacred sites, or places where wars took place, or beaches where people prepared for whaling, and so on.

It's hard to protect these kinds of values in the western context of land use planning which is designed around protecting pieces of the landscape. However, if these values can remain intact through the application of the right kind of selective, low impact logging, then they can be protected. Part of the difficulty is that different people have different opinions on what constitutes sufficient protection of these areas. The following comment by an Ahousaht member displays this sentiment:

"Every area on these maps are significant- they mean lots to me. They've done research and found CMTs and canoes on the land...There's medicine there- used to be more 100-150 years back. We fought for the rivers in the territories. Our great great grandfathers." (36)

Funding

Ground-truthing information provided by all interviewees, using site visits and GPS, is a time consuming and expensive task. Thus far, adequate funding has not been provided to enable First Nations to carry it out. First Nations interviewees note that although over \$10 million has been spent on inventory work in Clayoquot since the SPRs were adopted, much of the inventory work recommended in Report 3 has yet to be completed.

On the whole, they feel that a disproportionate amount of money was spent on ecological inventories, and that their work is under-valued by government, as demonstrated in the following quotes from Ahousaht interviewees:

"I'm sure that they paid one individual more than what they paid us- simply- probably because we didn't have letters behind our name." (3)

"I'm surprised the province is looking for money elsewhere. They spent 40 million dollars in Clayoquot Sound in the early 1990s. Now we're doing the real work and now they don't have the

money. If the province really wants this cultural information, they sure show it in a strange way. We want the information too, but we have no money to do the work. ... Only a miniscule amount of money has gone into it so far.” (8)

5.2.3 Facilitators to protecting CSAs

Interviewees from all sectors said that completing the CSA inventories was very important. The fact that all parties agree on the importance of completing this work, and recognize its value not just to the First Nations, but also to government and industry, makes it likely sources of funding will be found to ensure its completion for the remaining watershed planning units.

Another facilitator, and one that helps to ease the challenge of confidentiality, is that government and industry do not require details from First Nations in their cultural layers. The TPC does not require them to show what values are being protected where, as is evident in the Ahousaht map showing their CSAs for Flores Island (see Appendix IIIC). Although industry and government would like more specific information, the First Nations are in control of the amount and type of information that is shared. This increases the level of comfort for members providing information for inventories.

The fact that many CSAs overlap with other SP reserves and/ or parks (see Flores Island map, Appendix IIID) can be seen as a facilitator to their protection from impacts from logging (as was discussed above).

5.3 THEME 3: INCORPORATING TRADITIONAL ECOLOGICAL KNOWLEDGE (TEK)

5.3.1 Perceived Impacts of incorporation of TEK

The range of perceptions found between First Nations members and other sectors are varied. First off, the feelings of First Nations interviewees are discussed, as only they can really say whether TEK is being incorporated. Some First Nations interviewees feel that TEK cannot be adequately incorporated, nor Hahuulhi adequately recognized and respected, because licensees and government don't truly understand it. Some feel that their experts in their knowledge system are still not recognized, and

hence TEK isn't given adequate respect. An interviewee from Ahousaht expresses such concern in the following quote:

"I mean they had to do another study to follow through what our elders on the panel found...you know...I don't know...I don't know if it's the truth they're speaking- and- so I have to go out and do a study on it." (10)

Other First Nations interviewees feel that TEK is starting to be incorporated. They recognize that it's a slow process, and they don't expect it to happen right away.

When asked whether TEK and science were being successfully integrated, lisaak and Interfor respondents also recognize that it will be a long road to get there, and that learning about TEK is an ongoing process:

"I don't think that we will ever finish learning about TEK and exploring new approaches to applying it. I think that's ongoing and that's something that we'll do forever. As long as lisaak exists." (15)

"You're always striving to improve, like I don't think we've arrived at perfection or anything, but I think we've certainly come a long way, and I think it's a pretty good job we're doing, and we recognize that it's constantly something to strive for." (17)

From the government's perspective, the TEK recommendations have had little impact. Some government interviewees still question how TEK can be useful for integration into forest management.

"...to say that TEK is being married over to scientific knowledge, it gets to that root question again which is I don't think TEK has ever really been properly defined and how it can be incorporated. So, I believe it's still a question, that, boils down to- can it be done? I mean, you know is it anything more than protecting First Nations values, and the opportunities for First Nations to carry on traditional activities? And if it is, and you know if it boils down to First Nations ways of managing to enhance stewardship, I haven't seen it yet." (23)

Increased understanding and recognition of the value of TEK

One consistent impact that was evident from all interviews is that people from all sectors now have at least a basic understanding of what TEK is. When asked to define TEK, or what it meant to them, all interviewees, be they from industry, government or CRB, had a good understanding of the definition of TEK, and everyone agreed that it was valuable knowledge. The existence and implementation of the FNSPRs has caused all involved to think about the meaning of TEK, and to understand it and appreciate its value at least on a basic level. Within the confines of this case study, there is almost

universal awareness of TEK, although all sectors may not understand it to the extent that the First Nations would like.

The following quotes from a government appointed CRB member is a good example of how the value of TEK is appreciated:

"...what is TEK, what is TEK specifically in Clayoquot Sound and how can we learn from that- like what's valuable about it- it's not just – let's just try to you know build a fence around it so we don't get into trouble- it's a more positive approach I think that I'm seeing – that people think there's something to be learned here. And the SP reports I think approached it on that basis, and the reports reflect that not only is there a way of relating to forests that's existed for- you know time immemorial in these communities, these 5 first nations communities, but there's some real value in the way that that approach has unfolded, and we can learn a lot from that, about the way that we carry out all of our activities within the region." (30)

"I think the biggest success that I see is the recognition that these are important values, and they're as important as- they're as or more important than the other values in the forest, and not just because of the legal requirement that the province has to not infringe on aboriginal rights and title. I think there's a recognition in the Scientific Panel planning process about the integrity and value of TEK and of cultural values- in it's own right, regardless of whether we should do it, or must do it for legal purposes, and whether we have any other drivers to ensure that those things are protected." (30)

5.3.2 Challenges with incorporating TEK

TEK doesn't fit industrial logging paradigm

The question of whether TEK is being incorporated into forest management is problematic, because TEK and the industrial logging paradigm in which it is being applied are so different, that to speak of incorporating one into the other is somewhat meaningless. As a CRB interviewee said:

"It's like asking somebody if 100 octane jet fuel is Kosher, well they're 2 different concepts, so how can you say it is....under a traditional management system, a lot of these major industrial forestry questions simply wouldn't be asked- they just wouldn't come up. So, how can you say they're applying traditional knowledge to a question that is beyond, completely beyond the scope of it...we're asking them questions that are sort of outside TEK, but we're getting sign off, so we make the leap that yes it is consistent with TEK, but it's not, it doesn't grow out of TEK." (19)

An lisaak interviewee acknowledges the difficulty of incorporating TEK to the extent that they would like, while staying within the constraints of the institutional framework:

"Government regulations don't permit us to just go full bore in the application of traditional knowledge, so we still have to walk between the lines." (15)

"...their (*First Nations*) approach to managing the land base is just so different than our industrial model that I think it's hard- it's really hard to even kind of get your head around it sometimes, because it's just, I don't even have the words to describe it. But it's just so, so different. You know we believe in drawing a line around something to protect it, but they believe in protecting it holistically. And that's where we just don't- the way that forest management is set up in B.C. just really doesn't mesh well with that." (15)

Institutional changes to the provincial forest management system is not within the scope of implementing the FNSPRs in Clayoquot Sound, but in order to truly implement those related to incorporating TEK, such change may be required.

TEK is Dynamic

Through interviews with First Nations members, it became clear that TEK is always changing and evolving over time. It is not something static that can be learned about once, and then incorporated. It requires constant interaction with the holders of TEK, to be sure that industrial forestry practices are keeping up with current traditional ecological knowledge and practice. As an interviewee from Ahousaht said:

"Traditional knowledge is something that our generation is actually utilizing but changing to adapt to our society right now. There's a lot of different things that we do in our culture that differ from (*the way our ancestors did things*)" (2)

Some interviewees from industry and government recognize that this kind of ongoing communication is required (as mentioned above in the outputs section), but it undoubtedly makes it more challenging to integrate TEK with western science for management. An lisaak interviewee described it as follows:

"...it's ongoing, it's not something you learn once and put in a file, it's constant contact.... I don't think that we will ever finish learning about TEK and exploring new approaches to applying it. I think that's ongoing and that's something that we'll do forever. As long as lisaak exists." (15)

Perception of TEK as "old ways"

Another related challenge is in the perception by some non-First Nations people that TEK is equated with the old ways and traditional lifestyles of First Nations people before contact, and that they cannot continue to live by TEK in today's modern world. Several non-First Nations interviewees

displayed this perception in their responses. The following quote from a CRB interviewee is a good example.

"So in order to maintain your traditional knowledge, and really traditional knowledge also implies that we're going to live traditionally, well you can't do that anymore. I mean, even the people in Ahousaht, I mean they come by boat to Tofino in a high powered boat- aluminum boat- and then they get into an automobile and they drive to Port." (22)

Although it is true that First Nations are adapting to advances in technology as are all cultures, they have by no means abandoned TEK, and according to many interviewees, TEK still plays an important role in the lives of all First Nations people, young and old. The tendency of non-First Nations people to equate TEK with the 'old ways', means that often when First Nations people are interviewed about TEK, only elders are focused on. Several interviewees mentioned the importance of considering TEK from younger members as well, who are still using and passing on this knowledge. The following quote from a Hesquiaht member demonstrates this well:

"...we have people that are new- that are young, but still have knowledge , so it's not just the really old people that have knowledge, but new people are developing more knowledge, so we're kind of evolving, and in terms of working on this- so it's young people too." (21)

Differences in Worldview

TEK cannot be separated from its Spiritual and cultural context. The worldview, of which TEK is a part, is very spiritual and ceremonial in nature. As the following quotes from Ahousaht interviewees suggest, respect for all things and the fundamental connectedness of all beings is shown through spiritual ceremonies and prayer.

"It was all very ceremonial- every part of it. Preparing the tools, at the site before cutting (*a tree*), after cutting- to give thanks- always there was prayer." (35)

"...we only take what we need, we don't over-take anything that's there because it was a gift by the Creator, and every time we do take something we pray for it- whatever we do take, and we pray for a life if we take a life... I still fish and hunt for home use, but I pray for everything I take, trees, animals, I pray for it for providing food/ shelter for my family and myself." (2)

From the interviews, it seems that government and industry want to separate the "rational" parts of TEK from these "spiritual" aspects. It is very difficult to understand the importance of spirituality from a scientific worldview, where it is not considered to be part of management. However, as interviews

with First Nations members confirmed, it is not possible to separate TEK from its spiritual roots and context. Therefore to really incorporate it; management would have to include ceremonial aspects and a deep respect for all beings, which is unlikely within the context of industrial forest management in a for-profit, consumer-oriented system. Perhaps it is possible, but in the author's opinion not very many people in government or industry think about these issues when they talk about incorporating TEK. In the eyes of some First Nations interviewees, the lack of attention to spiritual aspects makes the whole idea of incorporating TEK somewhat meaningless.

“...our people are very spiritual people, and, we've taken into account the physical aspects of, and the economical aspects of what the forest is worth, they haven't taken the- spiritual value of our people, and what it's worth to our people.” (10)

TEK is also integrated with traditional First Nations governance structures and practices. These aspects of TEK are what the Hahuulhi project of the LBMF TEK working group was trying to raise understanding on. However, as the following quote shows, one government interviewee did not find this useful:

“I have questions about that TEK working group, whether it was really doing TEK anyways. I mean, from my opinion it was doing great ethnographic work, but I don't really see it as having done- TEK.” (23)

Comments like this demonstrate that government is not interested in really learning about TEK and understanding it within its broader cultural context. They are just interested in taking pieces of it that they can understand from within their own worldview to integrate within a planning system developed from that worldview. As one of the leaders of the Hahuulhi project said, “how can you incorporate TEK if you don't understand it?” It appears that from a First Nations perspective, incorporating TEK has a very different meaning than it does from a government perspective.

Capacity

Lack of capacity was mentioned as a challenge for improving First Nations participation in resource management. However, the issue of “capacity” works both ways. A lack of capacity is also a challenge for government and industry in incorporating TEK, in terms to the ability of these sectors to truly understand TEK. This is not meant as a criticism toward those sectors in any way. As a westerner, the

author also was unable to really understand some of the more spiritual stories First Nations interviewees related about their personal experiences when discussing TEK. It is hard to understand from our worldview, and in order to really understand, we would need experience and education in it, just as First Nations need experience and education in our worldview in order to participate meaningfully in our system.

Holistic nature of TEK

The First Nations worldview is holistic, as expressed in the following quote from an Ahousaht member:

“Hishuk-ish-tsawalk- that means everything is one- that word is recognized – not just by companies, but its recognized by the government, as well as the courts. It means everything is one. If they implement that word in one area, it’s going to affect all the other areas, no matter how you look at it” (2)

Whereas western science upon which forestry planning in B.C. is based, is essentially reductionist. This difference also makes it hard to incorporate TEK.

Confidentiality

Confidentiality of TEK (which was also discussed in relation to CSAs) relates to First Nations traditional systems of governance and Hahuulhi, whereby each family had rights to certain areas for harvesting certain medicinal plants or for hunting, or for spiritual cleansing and fasting, and such information was not shared between families, let alone outside the tribe. This confidentiality is likely tied to the spiritual and ceremonial context in which such rights to the land were passed down, and the underlying tenet that all land belongs to the Creator, and people are just its caretakers. As an Ahousaht interviewee explained:

“...it does not even belong to us- we’re just its caretakers- because it belongs to the Creator- so we just manage it and take care of it- and we’ve done that for thousands and thousands of years before contact.” (2)

The fact that TEK is confidential makes it difficult for government and industry to try to incorporate it, because to some First Nations people the act of sharing this knowledge with outsiders is in

contravention of spiritual/ traditional practice. The following quotes from First Nations interviewees demonstrate the confidential nature of TEK.

"Our history is passed down orally- its not usually shared with other families- for example prayer pools etc.. Medicinal plants information is also kept within family groups. Different families have different plants and roots they collect- they don't share this information with other families." (1)

"...a lot of people's traditional knowledge are still based on the same principles as it was a long time ago, we don't tell anybody- and it's confidential between families." (2)

"To ask if it's incorporated into plans, is a difficult question. For me, yes- but it's unknown to forestry companies. They have a plan and we have our plans. I don't tell them what TEK is, or where it is. So to say yes or no would be misleading.... really the only people that can respectfully use the traditional ecological knowledge is each individual first nation. And we don't tell them what it is, and at the same time, we don't tell them where it is." (27)

Another challenge that relates to confidentiality, of a more pragmatic nature, is intellectual property issues. Apart from the fact that sharing TEK information goes against traditions, First Nations are also concerned that if this knowledge is shared, it will be misused. If medicinal values of plants, derived from TEK, are known by the dominant society, it can lead to a lack of access to the resource for the First Nations, either through restrictions or through overuse of the resource by outsiders resulting in its destruction. As a Hesquiaht interviewee explained:

"...we all grow up with- you know there's something that is sacred, and unfortunately, you know some of it is becoming a little more public. You know there's maybe – not cures but, some sort of remedy for maybe some certain sicknesses, and as far as I know one or 2 have gotten out. You start letting those out, and, you get people out in the forest trying to go and get that stuff...and, they're taking too much, or they're not doing it right. So, so then not only do you have a whole bunch of people trying to get this, but at the same time, you know they're taking too much and they're doing it wrong, so now you start to...take things from the forest that you know- over time, they can't deal with it- so it basically starts to slowly destroy it." (27)

Further, if such treatments are eventually commercialized, the First Nations from whom the knowledge came often get no recognition or compensation for such knowledge, and hence they feel wrongly exploited. The following quotes show their concerns in this regard:

"...if we could create some kind of a system to protect that traditional knowledge- because like for instance – yew wood bark is being used for cancer already...basically, if we could be part of the...I mean I'm just looking a little further ahead, if they...like...they're finding some of the...some of our medicines already, so I think it maybe in the best interest of our tribe- to somehow tie it down- to say we have the right to that- that's one that's not really tied down really well" (11)

"....we're trying to deal with the legalities around it in terms of copyright and trademark. But trying to I guess ensure that the way we practice is not capitalized on by other people, but it's difficult to find a suitable mechanism to ensure that medicinal plants – like you can't you know- patent it. And it's just so difficult under the current law- it's almost impossible to do that." (21)
This sort of thing goes on all over the world where the value of indigenous knowledge is

disregarded. A discussion of intellectual property rights and TEK on an international scale is beyond the scope of this research, but it is important to note that in this regard, the situation in Clayoquot Sound mirrors what is happening globally.

5.3.3 Facilitators for incorporating TEK

Ecosystem Based Management is closer to TEK

The SPRs did embrace a new kind of forest management, ecosystem based management (EBM), which fits better with TEK than does the provincial management paradigm. There are two main ways that EBM comes closer to TEK. First, it incorporates a wide range of values, and second, implementing it requires a less intensive use of the land. EBM requires variable retention and sometimes single tree selection, which is closer to the way in which First Nations have always managed or used the land through TEK. Interviewees from all sectors addressed the similarity of EBM and TEK, as shown in the following quotes from MOF, Ahousaht, Interfor, and CRB interviewees respectively.

"...it does protect medicinal plants but it's not through, through TEK itself it's through the ecosystem based management where, you've gotta have certain percentage of the ecosystem, of each site series reserved, so inadvertently, it gets protected." (25)

"The Science Panel Recommendations are good- it's more selective-sometimes even just taking a single tree, like heli-logging. In our culture, in the past, we were *only* selective. We hardly ever even took a whole tree down- only a plank or a chunk for a canoe. *Very rarely*, we'd take a whole tree for a very big canoe." (35)

"There's a lot more respect for things other than timber. It's a more open kind of broader respect for the land base and resources, the interconnectedness of the land and resources in the water, and water protection- habitat..." (17)

"I think that their traditional knowledge is incorporated in that fact that you have up to 70% retention in some cutblocks." (22)

First Nations participation on the Scientific Panel

Since there were several First Nations members on the Scientific Panel, it is quite likely that TEK influenced the development of the EBM model that the SPRs embody. TEK was especially integral to the development of the SPRs through the guiding principle of Hishuk-ish-tsawalk (everything is one) that the First Nations brought to the table. Hence, just by implementing the SPRs, we can say that in a sense we are incorporating TEK.

First Nations participation in Planning

Some First Nations interviewees, and also government and industry interviewees, feel that TEK is incorporated just by having First Nations involved in planning through the CRB and the planning committees, and in operations through the liaisons and First Nations crew members.

“ I would say by virtue of First Nations being integrated in planning, there is an explicit avenue for TEK to become part of the planning process and the planning products.” (31)

CHAPTER 6: RESULTS AND ANALYSIS IMPACTS, CHALLENGES AND FACILITATORS COMMON TO ALL THEMES AND SUMMARY OF CHALLENGES AND FACILITATORS

6.1 PERCEIVED IMPACTS COMMON TO ALL THEMES

Process Based Impacts

One type of perceived impact that can be analyzed based on the interview data are impacts that have resulted from the *process* of implementing the FNSPRs. Some evaluation and implementation scholars say that the process of implementing a new policy can lead to as many side benefits as the actual products of implementation.

The two main process based impacts that are evident in the implementation of the FNSPRs, as acknowledged by many interviewees, are the relationship building it has encouraged, and the contributions it has made towards bridging gaps in understanding between First Nations and non-First Nations worldviews, which is necessary for co-management.

Relationship Building

Interviewees from all sectors mentioned the positive relationships that have developed since the SPRs were adopted. Some of this relationship building has come from the frequent and regular interactions between First Nations and non-First Nations members on the CRB, and the planning committees. Some has come through industry hiring liaisons and working more closely with the First Nations in consultation and planning activities. Although we cannot attribute all the relationship building between First Nations and non-First Nations in Clayoquot Sound to the SPRs alone (as will be discussed later); the multisectoral planning committees that were created directly to implement the SPRs have contributed significantly to building these relationships.

As an interviewee from the MSRM said regarding the relationship between government and First Nations members on the TPC:

"...we have a fairly good working relationship with these guys... there's a fairly high level of trust." (26)

Good relationships have also developed between industry and First Nations. As shown in this comment from an interviewee from Interfor:

"...there's you know some really strong trusting relationships...It's a long hard push to establish these relationships, but it's for the most part pretty positive." (13)

The Relationship building value of the CRB is shown in the following quotes from non-First Nations members:

"What are the successes? - well I think, number one is just realizing that First Nations and the white people can work together, we can move forward." (20)

"...generally build a relationship with them that they can trust, and so far I think that the CRB has succeeded- at least at that level in creating a trust between (*First Nations and non- First Nations*)" (22)

Different First Nations have different levels of relationships with Industry. It depends on the protocol agreements they've developed, if any, and upon personal factors. The interaction of First Nations members with industry and government people via consultation processes, meetings, and committees leads to respect for one another through experiential learning. Respect is an important part of relationships with First Nations, as they didn't have it from the "dominant society" for so long.

The relationship building is a positive impact that will remain and will benefit the communities regardless of the outcome of the implementation of the SPRs. Even if no watershed plans are ever formally adopted, these relationships between sectors and communities, and the trust building that has occurred, will remain.

Cross Cultural exchange and learning

Another impact that has occurred as a by-product of having First Nations and non-First Nations members working together on the planning committees and the CRB is that each side has had ample opportunity to learn about the other's worldview and perspective. As was discussed above, many people from industry and government mentioned that they see incorporating TEK as a learning process, but that they see it as important, and respect it. The more people work with each other on

resource management issues, the more they should be able to learn about each other's worldviews, enabling them to see how the two can be integrated in practice (Lertzman, 1999).

6.2 CHALLENGES COMMON TO ALL THEMES

Structure of the recommendations

There are challenges related to the nature of the FNSPRs themselves. The first was the fact that some of the recommendations had vague wording, making their intentions open to interpretation. The second was that the FNSPRs were adopted informally as a political decision. No new legislation was created around them to structure the implementation process.

Degree of systemic change required

The fact that the recommendations suggest such a dramatic change from the status quo is a challenge to their successful implementation. This was mentioned by interviewees from several sectors; CRB, industry, and First Nations. Some referred to it as a paradigm shift, and others as a systemic change.

A CRB interviewee describes this further in the following quotes:

"I continue to be really impressed by the approach that the Scientific Panel articulated. It's a pretty simple approach, you know you identify the values, you set it and make sure that you got areas set aside from impact so that those values continue to exist- don't get obliterated by the other stuff that you do, but we don't tend to do things that way in the westernized industrialized world, it's a different world model and so you know you're constantly challenged to be able to do it." (30)

"...we sometimes really lose sight of the need for systemic change. Or, and systemic change is just so tough, and you don't see the effects of the incremental bits of it until you're quite a ways down the path...we tend to think – oh well, you know- we haven't done well enough, because it's taken us a long time, or- we haven't solved all the problems or- you know look at the things that were missed. Rather than look at how this has put us on a different path." (30)

Added expense of operating in Clayoquot Sound

Several government and CRB employees stressed that implementation of the SPRs has been very expensive. The amount of money that went into producing inventories that were seen as a starting point for planning was prohibitive. This issue will be discussed later in this thesis, when examining whether or not Clayoquot Sound is a good model for future endeavours.

Industry interviewees acknowledged that the added planning requirements in Clayoquot Sound, associated with the SPRs, add a major cost to operating. They acknowledge that government makes allowance for this, by requiring licensees to pay less stumpage per cubic metre than elsewhere in the province, but they are not sure whether this makes up for all their costs. To the extent that implementing the FNSPRs contributes to that extra expense, this represents a challenge to their successful implementation by licensees who have to maintain a profit margin for their shareholders.

Some First Nations interviewees also felt that the issue of cost affects the implementation of the FNSPRs, particularly in the area of incorporating TEK, which is sometimes seen as an added expense.

Territory overlap

There are overlaps between the claimed traditional territories of the 3 nations. Specifically, Ahousaht's claimed territory overlaps with both Tla-o-qui-aht and Hesquiaht's claimed territories. Therefore when a licensee proposes operations in an overlap area, they have to consult with both First Nations, who each have their own systems. This adds another layer of complexity with regards to implementing the FNSPRs. There may also be associated difficulties with completing the watershed unit plans for areas where such overlap exists such as the Hesquiaht planning unit. These overlap issues will likely be resolved through the treaty process, which will be discussed later as another factor affecting implementation.

The overlap issue is illustrated well in the following story by an interviewee from the CRB:

"We were having a meeting...the chairperson at the time, the provincial chairperson thanked the Hesquiahts for welcoming us to their- they have this thing where you ask permission to step on their territory- and no sooner he did that the Ahousaht guy jumped up and he said "Hold it- he said this is NOT Hesquiaht, this is Ahousaht." But, one thing about them, they don't hold a grudge, I mean this is a protocol, they make a statement. The other person didn't repudiate that they just- you know- they keep that, but you know- there is that tension. You know our land, their land...and so, the same goes between the Ahousahts and the Tla-o-qui-aht." (22)

The CRB has also acknowledged the challenge this creates for them with regard to their ability to respond to development applications in a timely and effective way. A CRB interviewee describes the problem below in regards to an application for an aquaculture permit:

"...the farm had to be moved, and the Tla-o-qui-ahts agreed, but the Ahousahts said no, it's in our territory and they said no it's in our territory. And so we were, we couldn't make a decision Ok? You know, so we sort of threw it back at them and said well you'd better come and consult. And I feel sorry for the poor people that are working for the government – cause they're really, you know on one hand you've got the pressure from your ministry to do a job, and on the other hand you've got an impossible situation that should be settled through negotiations with the First Nations and between tribes, eventually they're going to have to say well- ya this is your land" (22)

Tribal relations

First Nations interviewees also recognized that competition between tribes is a challenge. They see the need to work together more, rather than against each other, but the fact that they are also involved in treaty negotiations makes this difficult. As an Ahousaht member said:

"I think we'll have more say if we get more communications between the tribes. The involvement with the tribes- we've just gotta work with them, because we're in partnership in the central region. We've gotta get out of that stage of jealousy between tribes, and start building as a tribe.... Instead of creating the hardships ourselves, we should be...I guess in my eyes we're our worst enemy." (11)

Hereditary government vs. elected governments

The duality of governance systems in First Nations communities, with the hereditary chiefs maintaining certain responsibilities, and the elected chief and council taking on other responsibilities, adds a level of complexity for licensees and government implementing agencies. It is often necessary to consult with and have approval from both systems of government. Sometimes the two governing entities may have different goals and different views on the level of industrial forestry activities that is desirable or acceptable. This issue was discussed in the section on industry outputs.

Oral vs. written tradition

As mentioned earlier, First Nations pass on knowledge orally, and important functions within society and between chiefs and members traditionally are carried out orally. In the dominant system, within which First Nations are required to function to participate in forest management, they are required to rely on written methods of communication, for approvals with the CRB, and for consultations with licensees and government.

Since the written method of communication is not as highly valued traditionally among First Nations communities, the fact that a paper trail is always required for planning and decision making, and the

fact that cultural layers themselves are required to be put on maps and accompanied by written reports, is a challenge for First Nations. This is especially true for members from older generations, who are more used to and more comfortable working in an oral tradition.

Challenges related to the Context

Historical context- the Policy Legacy

History is a factor that can't be ignored in the implementation of any current policy that relates to First Nations. The history of government's relationship with First Nations people has been full of very negative experiences from a First Nations perspective. The cumulative effect of government's past policies is often referred to as the policy legacy. It has lead to many First Nations people understandably having a strong sense of mistrust towards any government intervention, even those such as the FNSPRs in which their members were involved, and which purport to be for the sake of their interests.

Interviewees from other sectors recognize this lack of trust and the reason for it, as shown in the following quotes from Industry and CRB members:

"I think there's still a fair degree of probably mistrust I guess you could say out there" (13)

"...there have been some real discriminatory practices. And so the First Nations have- I think a valid reason for not trusting any form of government." (22)

This mistrust is a challenge for government agencies implementing the FNSPRs. The mistrust was quite evident in interviews with many First Nations members. As the following quotes from Ahousaht members suggest, they feel that the government is only meeting the minimum requirements of the law.

"...they're still trying to get away with things. I figure. ... So I would say that- you know- for gaining anything that's developed in that area, it's been through legal senses." (8)

"...to a certain extent they do...and...not whole-heartedly. And, I think it's a mandatory thing that they have to... and that's the way I feel it's being done." (10)

"...some of our elders have been reluctant in a way to share information because of distrust of what's happened- because of the stolen land issue is very much in front of our elders." (8)

Several First Nations interviewees stated that the government and companies haven't solicited or listened to their concerns for so long, that it will take time for people to realize that they can have some

meaningful input. As people start to realize this, participation will slowly increase. As an Ahousaht interviewee said:

"I think the more that our people realize that they are being listened to, the more that will come back to them... We've been held back for so long that, sometimes we forget about all of the abilities that we have. And it's still there." (4)

In an informal conversation with a hereditary Chief from Ahousaht, he touched on this further, in that First Nations people are still recovering from colonization. He emphasized that after so much oppression, things don't come back right away, it takes time.

Socioeconomic conditions resulting from the policy legacy- effects on Capacity

The colonial policy legacy also led to socioeconomic conditions in First Nations communities that affect their capacity to participate in forest management and planning. The average education level is lower than the national average, especially in the sciences. Also, there are very high unemployment levels, and social issues in the community as a result of the tragedy of residential schools of the past. First Nations communities have to deal with these more pressing issues within their communities, which take a lot of time and resources, and makes forest management concerns, such as consulting with licensees regarding their plans, a relatively low priority.

It is important to acknowledge that the reason for this lack of capacity was deliberate government policies to marginalize First Nations people - with the eventual goal of assimilation. All decisions were made for them by the Indian Agent under the Indian Act, and everything was done for them. They were considered to be wards of the state, and were treated like children, like they couldn't do anything for themselves. That's why they have low capacity in some of the technical areas now (Coates 1998).

This effect of the policy legacy on capacity was recognized by several non-First Nations interviewees from government and the CRB, as expressed in the following quote:

"I'm not foolish enough to think that we're not part of the larger worldview where – you know First Nations are at this point in time trying to- you know play catch up in a way- of...reasserting their place in the communities that they've lived forever. I mean we've had a difficult political past, in the last couple of hundred years, and it would be insensitive of me to suggest that there's true equality, in all ways." (30)

The existence of that recognition and respect for the effects of past policies is a positive step towards overcoming this formidable challenge to implementing the FNSPRs. This is a necessary step to building new, positive, trusting relationships.

Institutional context

Some industry interviewees mentioned that it was difficult to implement the FNSPRs as much as they would like, since they still have to fit into the guidelines of the Forest Act, the Forest Practices Code, and other relevant legislation governing forestry activities in the province.

This was discussed earlier under challenges to incorporating TEK; however, it doesn't just relate to incorporating TEK, but rather it affects the implementation of the FNSPRs and the SPRs as a whole. This is due to the fact that they are based on a different paradigm for forest management, and it is difficult to implement such major changes within the constraints of the current institutional context.

Political context

The 2001 provincial election brought the Liberal party into power.⁴⁹ One challenge that was created by this change of government was the re-organization of ministries responsible for natural resource management. The Liberals created the MSRM, and gave it the responsibility for land use planning in the province. Thus the MSRM took over government's role in the Clayoquot Sound planning process via the TPC, from the MOF and MOE.

A change in ministry responsibilities means a change in the people responsible, and it takes time for the new MSRM representatives to acquire the background knowledge necessary to effectively participate in this planning, and to build relationships with the First Nations members of the TPC. This has been a challenge to implementing the FNSPRs in terms of slowing the watershed planning process down. As an MSRM interviewee explains:

"...that is a challenge – people changing. So, they had to sit there and be patient with us scratching our heads and trying to figure out what's going on." (26)

⁴⁹ The B.C. Liberal party is quite conservative, compared to the more socialist New Democratic Party (NDP) that was in power from 1991-2000 in British Columbia, through the time of the conflict in Clayoquot Sound and the Scientific Panel.

Another challenge that arose with the change of government in 2001 is that the B.C. Liberals have a much more business and economic development oriented mandate than their NDP predecessors. Thus they are unlikely to be highly supportive of the costly planning process in Clayoquot Sound.

Several First Nations interviewees mentioned a lack of trust in the new government. They are not confident that it will allow for the progress that has been made with implementing the FNSPRs in Clayoquot Sound to continue. As an Ahousaht interviewee said:

“This new government has always got us wondering...” (8)

A CRB interviewee was also sceptical about how the BC Liberals will deal with Clayoquot:

“I get a little impatient when people just sort of assume that, well, always the government will find the money because...I mean this is a government that's closing hospitals and shutting down programs and stuff like that, so I mean, I don't know if they are but they're a little too mean spirited to assume that they will just always find the money, they just won't find the money and just say tough.” (19)

Economic context / Markets

The socio-economic context includes social and economic factors, both locally and at the provincial and national levels, and even international markets, which impact on the possibility for successful implementation of the FNSPRs. In a poor economic climate, it is harder to implement policies that are costly to industry (Hoberg 2001). The economic situation for the forest industry in B.C. and in Canada as a whole has been poor in the past few years.

There are many facets to this, including a global drop in market prices for commodities such as wood products, and the expiration of the softwood lumber agreement between Canada and the United States. An in-depth discussion of these economic factors is beyond the scope of this research, but suffice it to say that in a poor economic climate, it is more difficult to implement the FNSPRs, which add to planning and operating costs for licensees.

Spillovers from other Policy subsectors: Treaty Negotiations

A policy subsector that interacts closely with implementation of the FNSPRs is the treaty process through which First Nations land claims are being resolved by negotiation with the provincial and federal governments. Although some First Nations interviewees claimed that they try to keep business separate from politics as much as possible, their involvement in the treaty process impacts to some degree on all their activities in the resource sector. Treaty negotiations can be seen as both a challenge and as a facilitator to the implementation of the FNSPRs, depending on what aspect of it you're looking at.

Treaty issues act as a challenge in that it takes up much of the time and energy of some of the most highly educated members of the small First Nations communities in Clayoquot Sound, which decreases the amount of time and energy the community can devote to dealing with issues such as co-management of forest resources. So treaty adds to the capacity challenge.

An interviewee from the MSRM explains the challenges that treaty issues create:

"I think for First Nations, I think the challenge has been to, with limited resources, to sustain over time both the treaty process and input in the Clayoquot watershed planning. So there has been competition for scarce resources in that regard...the continuing uncertainty around land claims I think plays into the planning process in terms of delaying products. ... Ya, I think in terms of efficiency and longer time frames that are required- that's been an ongoing challenge." (31)

Some government and industry interviewees also feel that First Nations treaty concerns affect the process for protection of culturally significant areas. As interviewees from Interfor and the MOF said:

"...you're trying to get a blend of science panel and treaty. So you have to be careful when you look at these things is that, people tend to colour them with- well we have a huge treaty interest area here so let's make that whole thing culturally significant. So you can have the whole landscape become culturally sensitive right?" (12)

"But the other part about it is that the First Nations are really reluctant to put things down on a map as reserve or not reserve because they feel like well they're giving it away for good if they don't do it." (23)

Therefore, the implementation of the FNSPRs can't be analyzed in isolation from concurrent developments in the treaty process. This is also clear in the text of the draft watershed unit plans, which state in the preface that the plans "do not prejudge the positions that either government or First

Nations may take in treaty negotiations” (Clayoquot Sound Technical Planning Committee 2002, p.1).

The inclusion of this statement was very important for First Nations.

Treaty issues are also tied into the overlap of claimed territories between tribes that was discussed above. Once treaty is resolved, these overlap issues should also be resolved.

6.3 FACILITATORS COMMON TO ALL THEMES

Spillovers from other Policy subsectors: Treaty Negotiations

The Interim Measures Agreement (IMA) is a positive aspect that has come out of the treaty process, in order to give First Nations some control over and benefits from resource management in their traditional territories while treaty is still being negotiated. As was explained earlier, the IMA facilitates the implementation of the FNSPRs. So in that regard, spillovers from the treaty policy sector has been a facilitator.

Social License

As several interviewees mentioned, since the “war in the woods” conflict in Clayoquot Sound, forestry activities there have remained under fairly close scrutiny both by local people and organizations, and by national and international environmental groups and others. Licensees operating in Clayoquot Sound and government agencies involved in forest management are aware of the need to keep the public happy with them as much as possible to avoid further conflict.

They recognize that getting First Nations support for their activities and having them involved is a major part of keeping this “social license”, both locally and in the eyes of outside organizations. Of course First Nations support of activities is also required to get approval through the CRB review process, but even in absence of that, it is recognized that there’s a need to get the First Nations on board as much as possible. As a MOF interviewee describes:

“...because of the controversy in Clayoquot Sound is that unlike any other place that I’m aware of, the...the level of review of any kind of activity- is so great, and, there are so many different...interest groups involved, that one of the key components you know just kind of the so-called social license is to have the First Nations support. So, even though, we work through the whole thing with First Nations and get approved plans, and monitor the plans, if a licensee blows it,

on First Nations support, they lose a lot of the leverage that they can get- to be able to have the luxury of operating in the area.” (23)

Public opinion

According to interviewees from all sectors, there is a high degree of support for implementing the FNSPRs. As an interviewee from the CRB said:

“I don't think that you can find anybody in Clayoquot anymore that doesn't think that the values in those reports are important. Like they might say- well you know they missed the socio-economic side, or, they should have given a greater weight to this or that, but you can't find anybody who doesn't think that- you know identifying the sort of biophysical characteristics in a way that's meaningful before you log, you know people I think recognize that this is something that we should pay attention to. And I think likewise, people think that we shouldn't be carrying on activities in the forest without paying attention to what's important from an aboriginal perspective. And, you know people might have greater and lesser degrees of commitment to that, but I think that people recognize this is an important way of doing things.” (30)

To the degree that this positive sentiment exists among the local communities, it will facilitate the successful implementation of the FNSPRs.

The Constitution and the Courts driving policy development

The current and evolving status of court decisions and legislation regarding aboriginal rights and title both federally and provincially facilitate the implementation of the FNSPRs.

At the highest level, the Canadian Constitution Act of 1982 protects aboriginal rights in section 35(1). There have been many court decisions since, many of them originating from First Nations in B.C. that have further defined aboriginal rights and confirmed the existence and meaning of aboriginal title to lands where no treaties have been signed.

The provincial government has had to respond to these court decisions by changing its policies in the resource sector to accommodate aboriginal interests in the land.⁵⁰ The most recent landmark case on aboriginal interests in the land and how they interact with forestry activities on Crown land was the case of the Haida vs. the B.C. government and Weyerhaeuser. The decision stated that not only governments, but licensees operating on Crown land have an obligation to consult with and to

⁵⁰ In the past, the provincial government has tended to stick to the minimal requirements of the law as much as possible, and has not tended to proactively develop policy in this area.

accommodate the concerns of First Nations who have a reasonable claim to legal rights on their traditional territory.

Court decisions are driving government policy development in this area. Mainly in response to the Haida decision, the government has developed new consultation guidelines, released in October 2002, which direct ministries on how to address aboriginal interests in lands and resources. These guidelines bring the general practice for the province closer to what the FNSPRs recommend in the areas of consultation, participation and protection of cultural values.

Several First Nations interviewees suggested that court decisions have been the real driver behind government and industry outputs, rather than the recommendations themselves. The following quotes from Ahousaht interviewees demonstrate this sentiment:

"...the government's being forced to do this- with court cases and with the Scientific Panel Recommendations in the Clayoquot Sound planning process. They wouldn't do it if they didn't have to" (3)

"I think there's more of that (*First Nations Participation*) than ever before. And it's not the goodness of the provincial heart or the federal heart that's doing this. It's the court cases- that's been done legally" (8)

Some industry, government and CRB interviewees also discussed the importance of jurisprudence in this area, and mentioned that because of it, you cannot separate out impacts of the FNSPRs on their own. As a CRB interviewee said, in response to the question of what successes there have been as a result of the FNSPRs:

"...the twist is- "as a result of the scientific panel recommendations", because a lot of stuff has happened too because of the recent court decisions and there's a *much* stronger need for not only government, but the companies to really be connected with first nations in any operations they do, and that's this whole tone of society that's out there now that wasn't 10 years ago." (19)

An interviewee from Interfor agrees, as shown in the following quote:

"I mean I remember back in the 80s in blocks, you're walking by old half carved canoes and just kind of say- Oh that's cool, and then keep hanging ribbons and you know just, you went to work right? You know, that's just not the reality today. But even if I look at those, I mean whatever changes there are, I can't really attribute those to the scientific panel right?" (13)

Institutional Context: the IMA

A key element of the institutional context in Clayoquot Sound is the Interim Measures Extension Agreement, which is more commonly referred to as the Interim Measures Agreement (IMA). It is the only piece of legislation that explicitly requires implementation of the SPRs in Clayoquot Sound. It states that "The Parties agree that forestry operations shall continue in Clayoquot Sound, pursuant to the Scientific Panel Recommendations..." (IMEA 2000, p. 10). It also creates the CRB and assigns its responsibilities, and the Parties to the IMA (the central region Chiefs and the province) have the power to approve the watershed unit plans. The 1996 IMA was responsible for creating the lisaak joint venture.

Thus, any impacts of the FNSPRs cannot be separated from impacts of the IMA. Many interviewees from all sectors mentioned the IMA as an important factor. Interviewees were asked what they thought was more important, the IMA or the SPRs in affecting change. The most common response was that you cannot separate the two - they work together. Some interviewees from the CRB and government said that the IMA provides the support for the implementation of the FNSPRs, and that in its absence, they are not sure that the FNSPRs would be implemented.

An interviewee from the MSRM describes the importance of the IMEA below in terms of the general support it provides for implementation of the SPRs:

"...it's a combination of the adoption of the Scientific Panel and the signing of the IMA, and that's the- the IMA is the key binding document that has ensured the implementation of the Scientific Panel Recommendations jointly with the First Nations, and just the consistency of the efforts of the CRB and the joint committee with the First Nations. That umbrella has been I think the essential mechanism to ensure the implementation and participation of First Nations. And it's provided that continuity even in the face of change of government-, which is essential. If there hadn't been a legal agreement in place, I'm not sure that that continuity would have been there." (31)

6.4 SUMMARY OF CHALLENGES AND FACILITATORS

The Challenges and Facilitators found in this case study are summarized in three tables below. In Table 3, they are organized into which theme of the FNSPRs they apply to. In Table 4, they are organized by the type of challenge or facilitator they constitute. It is useful to divide the challenges into

the typology of cultural, institutional, political, economic, and technical factors, as it makes it easier to see what factors can be influenced by further implementation efforts, and what factors are intractable. Although it is important to recognize intractable factors, it is important to note that they cannot be altered by implementation efforts. Finally, in Table 5, the challenges and facilitators are organized according to the type of variable they relate to: policy design, implementers, target groups, or context, from the implementation analysis framework developed in section 2.3.6.

Table 3. Summary of Challenges and Facilitators by theme

	TEK	CSAs	First Nations Participation	Common to all themes
Challenges	<ul style="list-style-type: none"> • Evolving/ dynamic nature of TEK • Perception by non-First Nations that TEK= old ways • Worldview differences: spiritual and ceremonial aspects of TEK, holistic TEK vs. reductionist science • TEK is integrated with / inseparable from traditional governance systems • Confidentiality • Concern about Intellectual property rights • TEK is radically different from the industrial model for forestry • Capacity of government/ industry to understand TEK 	<ul style="list-style-type: none"> • Confidentiality • Family ownership • Worldview differences: First Nations: people part of ecosystem, Dominant: people outside of ecosystem • Overlap with other SP reserves- access • Cost and Funding constraints • First Nations capacity • Lack of physical evidence for sacred sites • Need for ground truthing • Written vs. oral traditions 	<ul style="list-style-type: none"> • Capacity • Ownership component of Hahuulhi • Statutory decision making structure • Bill 13 • Unions 	<ul style="list-style-type: none"> • Cost (planning and inventory) • Overlap of claimed traditional Territories • Competition vs. cooperation between tribes • Hereditary Chiefs and Elected governments • Historical policy legacy: First Nations mistrust government, socio-economic gaps • Systemic change/ paradigm shift • Constraints of provincial forestry institutions/ laws • Change of provincial government • Poor economic climate for forest industry • Treaty negotiations interacting • Vagueness of recommendations • Political decision vs. new legislation for adopting FNSPRs
Facilitators	<ul style="list-style-type: none"> • TEK shares similarities with Ecosystem Based Management • TEK intrinsic to FNSPRs due to First Nations panel members • TEK inherently incorporated with First Nations participation (liaisons/ CRB members) 	<ul style="list-style-type: none"> • Overlap with other SP reserves - added protection • Perceived high value of cultural layers by all parties • First Nations have control of process and information for cultural layers 	<ul style="list-style-type: none"> • Consensus decision making process 	<ul style="list-style-type: none"> • Constitution (35:1) • Court decisions on aboriginal rights and title • Interim Measures Agreement • High local support for implementation

Table 4. Typology of factors influencing the possibility for implementation success

	Challenges	Facilitators
Cultural Differences <i>(Ways that First Nations culture differs from the "dominant society")</i>	<ul style="list-style-type: none"> • Spiritual/ ceremonial nature of First Nations worldview • Holistic nature of First Nations worldview • Confidentiality and family ownership of TEK/ CSAs • First Nations worldview- people are part of the ecosystem • Oral traditions vs. written traditions for knowledge transfer and governance. • Ownership component of Hahuulhi 	
Political	<ul style="list-style-type: none"> • Policy legacy – mistrust, capacity • Interactions with Treaty negotiations. • Overlap of claimed traditional territories • Competition vs. Cooperation between first nations. • 2 forms of First Nations government- hereditary and elected. • Change in provincial government: changing ministerial roles, business development agenda • No new legislation created for FNSPRs, just adopted by political decision. 	<ul style="list-style-type: none"> • High local support for implementation • Social license required to operate in Clayoquot Sound. • High perceived value of CSA mapping by all sectors.
Economic	<ul style="list-style-type: none"> • Cost of planning/ inventories • Poor economic climate for the forest industry 	
Institutional	<ul style="list-style-type: none"> • Industrial model- lack of fit with TEK • Constraints of provincial forestry legislation • Allocation of Statutory decision making power • Bill 13 • Union hiring rules based on seniority 	<ul style="list-style-type: none"> • Constitution – section 35(1) • Recent court decisions on aboriginal rights/ title • Interim Measures Agreement • Consensus decision making by CRB/ TPC • First Nations majority ownership of lisaak
Technical	<ul style="list-style-type: none"> • Capacity • Evolving/ dynamic nature of TEK • Perception that TEK= old ways by non-First Nations • Overlap of CSAs with other SP reserves - access issue. • Systemic change/ paradigm shift • Intangible nature of CSAs vs. need for mapping, ground truthing and monitoring. • Vagueness of some FNSPRs/ open to interpretation. 	<ul style="list-style-type: none"> • Similarities between TEK and EBM • First Nations control what and how much information is disclosed in cultural layers. • Overlap of CSAs with other SP reserves – added protection issue.

Table 5. Type of Implementation Variable

	Challenges	Facilitators
Policy Design <i>(Top-down)</i>	<ul style="list-style-type: none"> • Degree of systemic change is high • Resources: <ul style="list-style-type: none"> ○ Lack of Capacity of First Nations ○ Funding short for CSA mapping ○ Educational programs lacking ○ Not joint Statutory decision making authority 	<ul style="list-style-type: none"> ▪ Degree of oversight <ul style="list-style-type: none"> ○ Fixers = courts ○ High public interest group attention ▪ Resources: <ul style="list-style-type: none"> ○ Consensus decision making
Implementers <i>(Bottom-up)</i>	<ul style="list-style-type: none"> • Interorganizational relationships: • Licensees and government are dependent on First Nations approval for operations to continue- stumpage and profits • First Nations mistrust government • Overlapping territory claims • Understanding and Acceptance of policy objectives: <ul style="list-style-type: none"> ○ Worldview differences: <ul style="list-style-type: none"> ○ First Nations: people part of environment ○ Hahuulhi= exclusive ownership ○ Oral vs. written traditions ○ Confidentiality of TEK/ CSAs • Government doesn't understand how TEK can be incorporated. 	<ul style="list-style-type: none"> • Interorganizational relationships: • First Nations control over CSA mapping process is building trust • Close working relationship on CRB and TPC of First Nations and government • Understanding and Acceptance of policy objectives: <ul style="list-style-type: none"> ○ All sectors support CSA mapping
Target Groups <i>(Bottom-up)</i>	<p>(Worldview differences are relevant here as well, in that they negatively affect First Nations degree of support for policy objectives)</p>	<ul style="list-style-type: none"> • Degree of Support for policy objectives <ul style="list-style-type: none"> ○ lisaak majority owned by First Nations, high support ○ Industry accepts importance/ value of TEK • Relationships between target groups; <ul style="list-style-type: none"> • Relationship between First Nations and industry are improving with liaisons, First Nations staff- education by experience
Context <i>(Top down and Bottom-up)</i>	<ul style="list-style-type: none"> • Historical: policy legacy- affects capacity of First Nations • Cultural: worldview differences <ul style="list-style-type: none"> ○ Confidentiality of TEK/ CSAs ○ Family ownership of CSAs ○ People part of environment ○ Spirituality and Holistic nature of TEK ○ Sacred sites have no physical evidence • Political: <ul style="list-style-type: none"> ○ First Nations hereditary and elected governments ○ 2001 Provincial election- liberals • Technological: <ul style="list-style-type: none"> ○ Oral vs. written tradition ○ Ground-truthing CSAs difficult • Institutional: forestry industrial paradigm • Interaction with other policy subsectors: Treaty • Economic: <ul style="list-style-type: none"> ○ Depressed markets for wood products 	<ul style="list-style-type: none"> • Technological: Ecosystem based management is closer to TEK • Institutional: <ul style="list-style-type: none"> ○ IMA ○ Constitution (35:1) • Political: public opinion- high public support

CHAPTER 7: CONCLUSIONS

7.1 IMPLEMENTATION OUTPUTS

All sectors have contributed in substantial ways towards implementing the FNSPRs. Government's most important outputs have been their provision of resources to allow the planning process to proceed. Industry's most important outputs have been their hiring of First Nations liaisons, and their development of consultation protocols with First Nations. First Nations most important outputs are their culturally significant areas (CSA) maps.

Outputs cannot be attributed to the FNSPRs alone, since there are other closely interacting factors including the treaty process and court decisions defining aboriginal rights. It is very difficult - practically speaking, impossible - to separate out the effects of the FNSPRs from the effects of interacting factors when discussing implementation outputs and impacts.

7.2 EXTENT AND QUALITY OF FIRST NATIONS PARTICIPATION

Although it is clear that First Nations have had equal opportunity to participate in planning and management through planning committees and the CRB, it is also clear that they do not have equal capacity to make use of this opportunity. In terms of decision-making, it is not an equal partnership, because statutory authority still rests with the provincial government. However First Nations have a strong voice in recommendations provided from the CRB and the TPC to the statutory decision-maker.

The most important impacts of First Nations participation in planning and management, through these organizations and through their consultation and employment with industry, has been the positive, trusting relationships it has created, and the cross-cultural understanding it has built. Relationships have substantially improved between First Nations and industry, between First Nations and government, and between local First Nations and non-First Nations communities. It is especially important to view this as a significant success in this example of intersectoral implementation, given that the sectors involved have a long history of conflict and mistrust.

7.3 PROTECTION OF CULTURALLY SIGNIFICANT AREAS

Although there are no official watershed plans in place as yet, the value of the CSA inventory and mapping work that First Nations are doing is unquestionable. All sectors see that it will significantly improve the efficiency and effectiveness of the consultation process.

First Nations have control over the design of the process and the sharing of information. This increases the value of the process in that it also contributes to trust building between sectors. Regardless of the fate of the Scientific Panel watershed planning process, both the process and products of CSA mapping have produced benefits in the First Nations communities of Clayoquot Sound.

7.4 INCORPORATION OF TEK

It is difficult to say that TEK is being incorporated, because it is so different from the government's forest management paradigm. Rather than developing a new kind of planning process and product based on TEK and science, it seems that the government is trying to reduce TEK to useful tidbits that fit easily into their planning process. It is unlikely that this process can really incorporate the holistic nature of TEK. Higher-level institutional change may be required, which is outside of the scope of influence of the FNSPRs.

Having said that, the process of trying to address and incorporate TEK has resulted in increased understanding and respect for TEK among government, industry, and non-native community members. All sectors including First Nations recognize that it will take a lot of time and learning to really be able to meld these two knowledge systems and worldviews together for forest management.

7.5 THE ROAD AHEAD

It is too soon to conclude whether the implementation has been a success. Other studies suggest that a minimum of ten years are required before such definitive conclusions can be made. However implementation should not be viewed as simply success or failure. In this case study, a broad

perspective was taken on what constitutes success, following the incremental approach that accounts for the importance of adaptation and policy learning.

This study has shown that there are many challenges to implementation, and comparatively few facilitators. This is to be expected for system-changing policies that require a major departure from the status quo. An examination of the complexity of these factors helps to explain why the watershed plans are taking so long to complete.

For all sectors, the process of implementing the recommendations has been more important than the products, in terms of the relationship building and cross-cultural exchange it has provided. These positive impacts will remain, regardless of future implementation activities.

With continued government support for implementation through provision of resources to complete and implement the watershed plans, and with additional time for relationship building, cross-cultural learning and capacity building, there will be greater chance for more positive implementation impacts as time goes on.

7.6 IS CLAYOQUOT SOUND A GOOD MODEL?

A good gauge of whether a new policy applied to a small region - such as the FNSPRs - is successful is whether this policy has been applied to other regions. So far, the SPRs have not been adopted elsewhere in the province. However, there are certain parts of the province that look to the SPRs as a good model for ecosystem based management.

A similar management model has been proposed as a solution to land use conflicts in other parts of the province, such as the contentious Central Coast Land Use Planning Process (Ministry of Aboriginal Affairs 2001). In addition to the central coast LRMP (Land and Resources Management Plan), interviewees from the MSRM indicated that the model of ecosystem based management envisioned by the SP has also been considered for the Great Bear rainforest on the north coast, and in Haida Gwaii. They were not sure of the degree to which agreements with local First Nations in those areas are similar to the model for First Nations participation developed in Clayoquot Sound.

Interviewees did not provide any examples of areas where the FNSPRs are being used elsewhere in the province, where resources are being co-managed between local First Nations and the province. It would be useful to conduct a survey of First Nations in B.C. to see if the FNSPRs have been used as a model in any way, but such an undertaking was beyond the scope of this research.

Another factor that would be useful in determining whether Clayoquot Sound is a good model, would be to determine whether other First Nations in B.C. think that First Nations interests are better accommodated in Clayoquot Sound than in their territories. Although no such survey was done for this study, some First Nations interviewees mentioned that the perception among neighbouring First Nations is that practices are much better in Clayoquot Sound than outside. As an Ahousaht interviewee said:

"We're a long way ahead of some of our counterparts who say – we don't get that type of consultation- they come in and tell us what they're going to do, and it doesn't matter if we say yes or no... its better than a lot of other First Nations have- in terms of having our traditional areas protected and having a say in what can happen." (3)

Responses from some interviewees from industry and government contradicted the above statement. They said that they do the same kind of consultation with First Nations outside Clayoquot Sound as inside, and that they protect their cultural values in the same way.⁵¹ They said that the main difference is that there is much more inventory information available in Clayoquot Sound. As an Interfor interviewee said:

"No...I don't think Clayoquot Sound has made any difference to tell you the truth. Like, whether the First Nations are in Clayoquot Sound or not, like Gitgat, Kitasoo, Haida...everybody's got a different perspective, and I don't think they would think that if they were outside of Clayoquot sound they'd be treated any differently." (12)

Evidently, there are different perceptions on the degree to which First Nations in Clayoquot Sound get extra consideration due to the FNSPRs.

Interviewees from government and industry were asked whether they would, now or in the future, adopt similar practices with regards to incorporating TEK, protecting CSAs, and involving First Nations

⁵¹ The consultation process is a little different with each First Nation. Industry and government develop the consultation process individually with each First Nation, recognizing the diversity among Nations.

in management outside Clayoquot Sound, and whether they think that Clayoquot Sound is a good model for elsewhere. In general, respondents felt that there were some positive things from the planning process developed in Clayoquot Sound that could be transferred to other parts of the province, but that there were also some negative aspects. This is shown in the following responses from an MOF interviewee:

"...the idea was take it where it goes, and we'll assess how things work. And those things that do prove to be successful and work well, will...obviously be used elsewhere. But right now there's still a great big question mark in Clayoquot Sound. Like it still remains to be seen whether or not, we hit the marks in the right place. We won't be spending money on inventories elsewhere like we spent in Clayoquot Sound. And I'm not convinced, I mean, it was important to spend that money because we had to find out how relevant they are, but I think that you can make decisions with a lot less information. But, until we gathered that information and made some of those decisions, we didn't know that then. So, there's things to learn from Clayoquot Sound and apply elsewhere, there's things to learn not to do." (23)

The SPRs are generally not seen to be a good model in their entirety, but there are parts of them that are valuable. The most common criticism is that the planning process has been too expensive, due to all the inventory work it required. Government and Industry interviewees express this concern in the following quotes:

"I don't know whether, like Clayoquot Sound you know, it's been very painstaking, you know there's been very...extremely time consuming and very expensive, so I'm not sure whether it would be cost effective." (23)

"I don't know if you'd want to take it elsewhere...It's a very expensive model. ...you know part of it is I'm not sure it's grounded in economics at all. And, so...and that to me is a very strategic element."(16)

"I don't think the government has millions upon millions of dollars to do it everywhere...so that's the problem is like, I don't think anyone can afford it." (12)

However, some government interviewees indicated the possibility that the model of First Nations participation and protection of cultural values developed from the FNSPRs will be used as a model for other parts of the province, in light of recent court cases requiring more stringent means of addressing aboriginal rights and title. As an MSRM interviewee said:

"I think especially in light of recent court rulings- in the case of the Haida and Taku, there's clearly a need for more participation and there's more of an obligation on both government and companies to become more inclusive of First Nations interests and title claims. So, I think in Clayoquot, notwithstanding all the sometimes painfully slow steps that we've taken, there is a

mechanism in place now that gives me some comfort that the First Nations and that the provincial government ministries have a good sense of what needs to be done to accommodate and to address those concerns.” (31)

In response to the question “Does Interfor plan to adopt practices used in Clayoquot Sound in other divisions?”, all interviewees from Interfor said yes, that they are adapting some ideas from the FNSPRs to their operations elsewhere. So Clayoquot Sound is being used as a model in that regard. The following response is a good example:

“We already have. In a huge number of ways, specifically around the science panel- some of the north coast planning objectives and, you know the north coast, the Great Bear rainforest and all that stuff that's going on there is, we've exported a lot of ideas from here to that.” (13)

Interfor interviewees also said that they often have people come from other First Nations around the province to learn about the way Interfor has structured their business relationships with First Nations in Clayoquot Sound. People usually leave with good impressions, and they may then try to set up similar relationships with licensees in their traditional territories.

Some CRB interviewees said that the board itself is looked to internationally as an example. As shown in the following quote:

“I mean, sometimes I have to step back and think that a lot of the stuff that we're doing and bumbling and finding it as we go along, we're doing it, some of the stuff we're doing it is still pretty leading edge, I mean I still get calls from people in South Asia who want to know how we deal with First Nations issues and...we're not revolutionary, but we're still an example...” (19)

The general sentiment among most interviewees is that they hope that the positive aspects of their work in Clayoquot Sound will be picked up and used elsewhere. It is important for people to know what works and what doesn't, so that they can avoid making the same mistakes and avoid reinventing the wheel. However, as one CRB interviewee wisely stated, the fact that there is still conflict in Clayoquot Sound makes people shy away from seeing it as a good model.

“...you know its just, there's so much nervousness, because Clayoquot is still a very contentious area. And, you know people mix up the conflict with the attempt to implement new practices- that aren't panaceas for the conflict. They're not solutions to all the- you know deep rooted, different points of view that exist out there.” (30)

It is too soon to say conclusively whether the model for inclusion of First Nations values developed for Clayoquot Sound in the FNSPRs is a good model. As an interviewee from the MSRM explains in

the following quote, it won't be possible to transfer the model elsewhere, or even to know whether it should be transferred elsewhere, until the watershed unit plans are in place and working.

"...we've never been able to say- this is it in action- here the plans are, and look it works." (26)

In conclusion, there are mixed feelings about the success and applicability of the Clayoquot model. This is to be expected; Clayoquot is a work in progress and the full impact of the Scientific Panel recommendations cannot be pre-supposed. In the interim, and in the absence of official watershed plans by which to judge the success of these recommendations in reinforcing First Nations perspectives, this case study offers some insight into the challenges and facilitators that can affect the process. There are significant challenges left to overcome; in the meantime, this study has provided some insight into the substantial results achieved thus far, in the face of considerable adversity.

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APPENDICES

APPENDIX I: SCIENTIFIC PANEL RECOMMENDATIONS ON FIRST NATIONS PERSPECTIVES

Guiding Principles:

- Provide for sustainable activities such as logging, fishing, tourism and cultural pursuits.
- Accommodate the needs of First Nations for cultural, social and economic well-being.
- Protect cultural and spiritual values and other special sites.
- Involve local people and affected parties in the planning and management process.

Goals:

- To recognize and support the long-standing aspirations and needs of the Nuuchah-nulth people which are based on traditional occupation and use of the land and waters.
- To recognize, support and incorporate Nuuchah-nulth traditional ecological knowledge and values into land use planning and decision-making.
- To recognize and support the intent of the IMA to engage Nuuchah-nulth participation in Clayoquot Sound land and resource use.

Objectives:

- To recognize and respect the fundamental spiritual heritage of the Nuuchah-nulth.
- To accommodate First Nations traditional ownership of land and resources in land use decision making and activities.
- To involve the Nuuchah-nulth in planning and managing resource use activities.
- To consult and negotiate with Nuuchah-nulth about economic benefits before developing further economic activity in Clayoquot Sound.
- To ensure that forest practices do not negatively impact Nuuchah-nulth foreshore and offshore resource use.
- To ensure that cultural sites defined by the Nuuchah-nulth are inventoried, mapped, effectively protected, and restored where damaged.

Recommendations Addressed in this study:

Recommendations are presented as they were organized in Report 3. (p. 51-54) All recommendations addressed relate to one or more of the themes of FN participation in management, protection of culturally important areas, or incorporating Traditional Ecological Knowledge into management. This study addressed 17 of the 27 recommendations. The 10 recommendations that were not addressed do not fit into the above themes.

Co-Management

R2 Co-management of the Clayoquot Sound ecosystem must be based on equal partnership between the Nuuchah-nulth and the Province of British Columbia

R3 The First Step in developing an ecosystem-based co-management strategy for Clayoquot Sound must be to establish a working protocol based on mutual respect. This protocol must be developed and agreed to by all participating agencies and individuals, and must be followed throughout planning and decision-making processes.

Consultation and Planning

R4 All decision-making processes relating to ecosystem use and management in the Clayoquot Sound Decision Area must be undertaken in full consultation with the Nuuchah-nulth of Clayoquot Sound.

R5 All planning processes for forest and ecosystem use in the CSDA must be undertaken with full consultation and shared decision making with the Nuuchah-nulth of Clayoquot Sound.

Recognition of Traditional Ecological Knowledge (TEK)

R6 Standards for forest practices must incorporate TEK. Conflicts between scientific knowledge and TEK must be resolved in consultation with the Nuuchah-nulth of Clayoquot Sound. Inventory, monitoring, and research must also recognize and include TEK.

Hahuulhi: Traditional System for Ecosystem Management

R7 In consultation with the co-chairs of the Nuuchah-nulth Tribal Council, hahuulhi must be recognized in ecosystem co-management processes of Clayoquot Sound. Hahuulhi will be used in determining ecosystem management within traditional boundary lines.

Nuuchah-nulth Cultural Areas, Including Sacred Areas, Historic Areas, Current Use Areas, and Future Use Areas

R10 Before the completion of any ecosystem planning process in Clayoquot Sound, the Nuuchah-nulth of the area within which the planning is undertaken must be given the opportunity to identify, locate, and evaluate culturally important sites and areas.

R11 The Heritage Conservation Branch typology for classification of culturally important sites should be used with the categories of "Traditional Land Management Sites" and "Education and Training Sites" to be added to the categories delineated in this typology.

R12 The determination of culturally important areas will include sites whose significance and existence are communicated by oral traditions as well as those established by physical and written evidence.

R13 Culturally important areas identified as significant by Nuuchah-nulth must be protected using methods appropriate to the area and to the use.

Inventory and Mapping:

R15: Planning inventories undertaken in Clayoquot Sound for ecosystem management must be done in full consultation with and full participation of the Nuuchah-nulth of Clayoquot Sound. Nuuchah-nulth cultural resources and culturally important areas must be incorporated in planning inventories before completion of the planning process.

R16: Mapping projects undertaken in Clayoquot Sound for ecosystem management must be done in full consultation with the Nuuchah-nulth of Clayoquot Sound. Nuuchah-nulth cultural resources and culturally important areas, as identified by the Nuuchah-nulth of Clayoquot Sound, must be clearly shown on maps, with particular attention to zones of high cultural and sustenance value. (FN sacred areas are a potential exception)

Operations:

R17: All operations in Clayoquot Sound relating to ecosystem management, such as environmental impact assessment, selection of silvicultural systems and harvesting methods, proposed use of herbicides and pesticides, and road location, construction, and deactivation, must be carried out in full consultation with the Nuuchahnulth of Clayoquot Sound.

Education and Training: (cursorily addressed)

R18: Provisions must be made for the Nuuchahnulth of Clayoquot Sound to participate in education programs relating to ecosystem management processes and practices to enable them to obtain the necessary background to co-manage Clayoquot Sound ecosystems.

R19: As part of a system of forest worker qualification, all forest and ecosystem workers and managers should be provided with an opportunity to view educational videos produced by Nuuchahnulth people about Nuuchahnulth perspectives on forest practices and their impacts on the environment as well as about Nuuchahnulth culture in general.

Employment

R20: Firms must actively recruit FN in employment equity; federal government guidelines for employment equity must be followed.

Monitoring

R21 All ongoing ecosystem management activities must incorporate monitoring programs for impacts on biodiversity, soil, water quality, fisheries and marine systems, and cultural sites, with full consultation of and participation by the Nuuchahnulth of Clayoquot Sound.

Recommendations not addressed by this study are summarized below:

R1: International Conventions on Indigenous peoples and Forestry (Clayoquot Sound must meet or beat international standards, i.e. United Nations 1992)

R8, R9: Foreshore and Offshore Resources:
(Consult Nuuchahnulth to avoid damage due to forestry, and mitigate damage)

R14: Nuuchahnulth Tribal Parks
(Tribal parks should be developed, which would be owned and managed by the Nuuchahnulth)

R22, R23: Evaluation
(Nuuchahnulth must be involved in any evaluation activities regarding forest activities, and in mitigative actions where damage is likely to occur)

R24, R25: Restoration
(Damaged ecosystems must be restored, and Nuuchahnulth must be involved in all restoration activities)

R26, R27: Research
(Nuuchahnulth must be involved in developing research priorities on impacts of forest practices on ecosystems and must participate in this research)

APPENDIX II: INTERVIEW SCHEDULES

APPENDIX II A: GOVERNMENT INTERVIEW SCHEDULE

General questions- Introductory:

1 a) What is your position at (MOF/ MSRM)? 1 b) what kind of work does it involve? 1 c) How long have you been in this position?

2 a) Please describe how you have been involved with implementing the scientific panel recommendations? 2 b) How long have you been involved?

Questions related to Traditional Ecological Knowledge (TEK):

3) What does TEK mean to you? (what definition of TEK do you work with?)

4 a) Is TEK incorporated into forest management and planning? 4 b) In what ways? 4 c) How do you collect TEK information from First Nations?

5 a) Are forest licensees required to incorporate TEK into their management planning and operations? 5 b) How?

6) What does Hahuulhi mean to you? (what definition of Hahuulhi do you work with?)

7) Are forest licensees in Clayoquot Sound required to incorporate Hahuulhi in their management planning and operations? How?

8) Are TEK and "scientific knowledge" being successfully integrated for forest management and planning in Clayoquot Sound?

9 a) Is the use of TEK affecting the way forests are managed? 9 b) In what way?

10 a) Is TEK being used in a similar way outside of Clayoquot Sound, where forestry operations are occurring on First Nations traditional territories? 10 b) Do you think it should be? 10 c) Do you think it will be?

Questions related to Culturally Significant Sites:

11 a) How do you elicit information on culturally important sites from First Nations? 11 b) what kinds of sites to you inventory/ manage for?

12) How do you use this information (on the cultural areas) in your planning/ decision-making?

13 a) Does the current Heritage Conservation Act adequately protect areas of cultural importance to First Nations?

13 b) Do you agree with the Scientific Panel that it is important to protect a wider variety of cultural sites than those that are legally protected under the act?

13 c) Does the (MOF/ MSRM) ensure protection of those cultural values mentioned in the Scientific Panel, but not covered under the Cultural Heritage Act? 13 d) How is compliance enforced?

14) Are there any plans to extend the Clayoquot Sound framework for protection of culturally significant sites to other parts of the province?

15 a) I understand that the Ahousaht Nation has developed their own consultation process for their culturally significant areas. 15 b) How does the (MOF/ MSRM) work with this framework?

Questions related to First Nations Participation in Forest Management/ Planning/ Decision-Making:

16) In what ways does the (MOF/ MSRM) ensure that First Nations have the opportunity to participate in forest management/ planning/ and decision-making?

17 a) Are forest licensees required to ensure that there is First Nations participation in their management planning and operations? 17 b) What kind of participation is required? 17 c) How is compliance enforced?

18 a) Do you feel that First Nations have equal power in decision-making regarding forest resources in Clayoquot Sound? (meaning that they have as much say as the provincial government does and their input affects the result as much as provincial governments' input does) 18 b) How does their input affect the planning process (and its results)?

19 a) Does the (MOF/ MSRM) offer any education programs on ecosystem management processes and practices to First Nations to give them some background to help with co-management? 19 b) Please describe these programs. 19 c) Who participates? 19d) How are the programs received?

20 a) In general, would you say that First Nations opportunities for meaningful participation in forest management in Clayoquot Sound has changed since the Scientific Panel recommendations were adopted in 1995? 20 b) What have been the major successes? 20 c) What have been the major challenges?

21) Do you think that a joint management model similar to that in Clayoquot Sound should be applied elsewhere in the province? Why or why not?

Questions related to Draft Watershed Plans:

22) If these watershed draft plans are accepted, how long do you anticipate it will take to do the remaining WPU's?

23) How will reserves and Special Management Zones be legislated? How will licensees be held accountable to these plans?

24) Will consultation with First Nations be different in the white areas of the map versus the red areas?

Wrap up:

25) That's all the questions I have. Is there anything you would like to add?

26 a) Thanks very much for participating in this research project. Would you like me to send you a summary of my results? 26 b) Would you like a copy of the transcript of this interview?

APPENDIX II B: INDUSTRY INTERVIEW SCHEDULE

General questions- Introductory:

- 1) What is your position at (Interfor/lisaak), what kind of work does it involve, how long have you been in this position?
- 2) For how long have you been involved with implementing the scientific panel recommendations?

Questions related to Traditional Ecological Knowledge (TEK):

- 3) What definition of TEK does (Interfor/ lisaak) work with?
- 4) How is (Interfor/ lisaak) incorporating TEK in their planning and management at strategic levels (Forest Development Plan) and operational levels (Silvicultural Prescription) in Clayoquot Sound?
- 5) Who does (Interfor/ lisaak) collect TEK information from? How?
- 6) Does (Interfor/ lisaak) recognize Hahuulhi? (if they don't know what it is, tell them it's the Nuu-chah-nulth traditional land and resources ownership and management system)
- 7) Does (Interfor/ lisaak) use Hahuulhi when planning operations? How?
- 8) Who does (Interfor/ lisaak) get Hahuulhi information from? How?
- 9) Are TEK and "scientific knowledge" being successfully integrated for forest management and planning in Clayoquot Sound?
- 10) Is the use of TEK affecting the way forests are managed? In what way?

Questions related to Culturally Significant Sites:

- 11) What types of areas does (Interfor/ lisaak) protect from logging for First Nations interest? (AFTER they have answered, prompt with each of the various types listed in the Scientific Panel's Report, and ask for examples of each)
- 12 a) How does (Interfor/ lisaak) collect information (or inventory) on important sites? 12 b) What are your criteria for protecting a site from logging? 12 c) How do you determine the size/ area of the site to exempt from logging? 12 d) Do you allow for any buffers around the site? (prompt for issues around buffers: wind firmness, 'signal' to damage site, discuss sites protected by Heritage Conservation Act and sites not protected by this Act separately)
- 13 a) I understand that the Ahousaht Nation has developed their own consultation process for industrial interests within their territory, in order to protect their culturally significant areas. Does (Interfor/ lisaak) work with this framework? 13 b) How?

Questions related to First Nations Participation in Forest Management/ Operations/ Planning/ Decision-Making:

- 14 a) How do you consult/ involve First Nations in your planning/ decision-making? 14 b) Do you have a regular protocol that you follow? 14 c) Were First Nations involved in developing the protocol?

15 a) Does (Interfor / lisaak) you have policies/ programs to recruit first nations employees or contractors? 15 b) What are they? Have they changed since the scientific panel recommendations were adopted?

16 a) Does (Interfor / lisaak) you provide training for non-first nations employees on Nuu-chah-nulth culture and perspectives? 16 b) Please describe the training? 16 c) What has the response been like?

17 a) In general, would you say that First Nations opportunities for meaningful participation in forest management in Clayoquot Sound has changed since the Scientific Panel recommendations were adopted in 1995? 17 b) What have been the major successes? 17 c) What have been the major challenges?

Questions about the draft watershed plans:

18) Do you foresee any changes to the way you address First Nations interests once the Watershed Unit Plans are in place?

19) How will you work with the CSA maps that Ahousaht developed for the watershed plans- will consultation be different in the white areas versus the red areas?

General Questions:

20) Who funds data collection, information sharing, data management (storage and maintenance) for TEK and Culturally Significant Sites? (Provincial government/ industry/ First Nations?)

For Interfor Only: 21 a) How are practices regarding TEK and Culturally Significant Sites different in Clayoquot Sound as compared to other operating divisions?

21 b) If they are different, does Interfor plan to adopt practices used in Clayoquot in other divisions?

21 c) Why or why not?

FURTHER QUESTIONS FOR INTERFOR, IF THESE ISSUES HAVE NOT BEEN DISCUSSED IN PREVIOUS RESPONSES:

22) I understand that Interfor has Community Cooperative Area Pilot Projects with Ahousaht and Hesquiaht. Can you please tell me about these?

23) Are these different than the Community Involvement Pilot Project you have with Ahousaht?

24) Would it be possible for me to get copies of the FDPs and SPs to see how they address first nations interests? (for Interfor- I'd like to compare pre-1995 to post 1995).

Wrap up:

25) That's all the questions I have. Is there anything you would like to add?

26) Thanks very much for participating in this research project. Would you like me to send you a summary of my results? Would you like a copy of the interview transcript?

APPENDIX II C: AHOUSAHT INTERVIEW SCHEDULE

General questions- Introductory:

1) Please tell me about your involvement with the Scientific Panel and implementing the recommendations.

2) How long have you been involved?

Additional question- Rod's idea: How would you describe past logging compared to the implementation of the Scientific Panel Recommendations?

Questions related to Traditional Ecological Knowledge (TEK):

4) Is TEK being incorporated into forest planning and management? In what ways?

5) Do forest licensees work with you to incorporate TEK? How?

6) Does the Ministry of Forests work with you to incorporate TEK? How?

6) Do you feel that TEK is being used respectfully and effectively?

7) Do you feel that the use of TEK has improved the way that the forest industry operates in your traditional territory?

8 a) Do forest licensees respect Hahuulhi in their planning and operations? 8 b) How are you consulted regarding Hahuulhi?

Questions about TEK specifically related to the draft watershed unit plans:

9) Was TEK used in creating the plans?

10) How was TEK conveyed to the Technical Planning Committee (TPC) developing the plans?

11 a) Were community members consulted on TEK to be used in the planning?

11 b) Who was consulted? 11 c) How? 11 d) What input did they give? 11 e) How was their input collated to report to the TPC?

12 a) Do the plans consider Hahuulhi boundaries? 12 b) How?

13 a) Are you satisfied with the way TEK was included in the watershed planning process? 13 b) If not, how could it have been done better? 13 c) What resources would this require?

Questions related to Culturally Significant Sites:

14) Are culturally significant sites being protected from logging sufficiently? (AFTER they have answered, prompt with each of the various types listed in the Scientific Panel's Report, and ask for examples of each)

15 a) Are you consulted about these sites for protection (for each of the 13 types listed)? 15 b) How?

Questions about Culturally Significant Sites specifically related to the draft watershed unit plans:

16) Do the watershed plans include the 14 types of culturally significant areas that were mentioned in the Scientific Panel's Report 3 in the reserve network? (see above list)

17) Do these 14 types include all cultural resources/ values that are important to you, or are there additional ones?

18 a) How are cultural values protected through the plans? 18 b) Were buffer zones considered?

19 a) I understand that culturally significant areas are not to be considered as "reserves". The amount and type of logging that will be allowed in these areas will depend on the cultural values that are being protected. If logging is to be allowed in these areas, how will licensees ensure that these values are not damaged? 19 b) How will compliance be enforced? 19 c) Who will provide the resources for this?

20 a) Many of your CSAs are in other parts of the reserve network since they overlap, how do you feel about that? 20 b) How will you ensure that you still have access to these areas if and when the reserve network is legislated?

21 a) I understand that you developed your own consultation process for your Culturally Significant Areas. Can you tell me about this process? 21 b) How was this process developed?

22 a) I understand that Lisaak and Interfor are already using this process, 22 b) How does it work?

Questions related to First Nations Participation in Forest Management/ Planning/ Decision-Making:

23) Do you feel that you are "equal partners" in decision making regarding the forest resource in your territory (meaning you have as much say as the provincial government does and your input affects the result as much as provincial governments' input does)?

24 a) Have you been involved in any mapping/ inventory projects? 24 b) Please describe your involvement.

25 a) Were you offered any education programs on ecosystem management processes and practices to give you some background to help with co-management in understanding the government's practices? 25 b) Please describe these programs. 25 c) What did you learn?

26 a) Does the forest industry recruit your members as employees? 26 b) How? 26 c) Has this changed since the Scientific Panel Recommendations were accepted in 1995?

27 a) How do you share information with the Central Region Board (CRB)? 27 b) How does the CRB solicit information/ concerns/ approvals from you for permit reviews in your area?

28) In general, would you say that the Ahousaht Nation's opportunities for meaningful participation in forest management in Clayoquot Sound has changed since the Scientific Panel recommendations were adopted in 1995? What have been the major successes? What have been the major challenges?

Questions on participation Specifically related to the watershed plans:

29) Did you feel that you were "equal partners" in decision-making throughout the watershed planning process? (meaning you have as much say as the provincial government does and your input affects the result as much as provincial governments' input does)

30 a) Were you involved in the planning process beyond the cultural areas mapping component? 30 b) How were you involved? 30 c) Do you feel that your input influenced the content of the draft plans? 30 d) In what way?

Wrap up:

31) That's all the questions I have. Is there anything you would like to add?

32) Thanks very much for participating in this research project. Would you like me to send you a summary of my results?

APPENDIX II D: HESQUIAHT AND TLA-O-QUI-AHT INTERVIEW SCHEDULE

General questions- Introductory:

- 1) Please tell me about your involvement with the Scientific Panel and implementing the recommendations.
- 2) How long have you been involved?

Questions related to Traditional Ecological Knowledge (TEK):

- 3) Is TEK being incorporated into forest planning and management in your territory? How?
- 4) Do forest licensees work with you to incorporate TEK? In what ways?
- 5) Does the Ministry of Forests work with you to incorporate TEK? In what ways?
- 6) Do you feel that TEK is being used respectfully and effectively?
- 7) Do you feel that the use of TEK has improved the way that the forest industry operates in your traditional territory?
- 8 a) Do forestry operations respect Hahuulhi? 8 b) How are you consulted regarding Hahuulhi?

Questions related to Culturally Significant Sites:

- 9) Are culturally significant sites being protected from logging sufficiently? (AFTER they have answered, prompt with each of the various types listed in the Scientific Panel's Report, and ask for examples of each)
- 10 a) Are your members consulted about these sites for protection by the Ministry of Forests and/ or Forest licensees? 10 b) How?
- 11) Do these 14 types include all cultural resources/ values that are important to you, or are there additional ones?

Questions related to First Nations Participation in Forest Management/ Planning/ Decision-Making:

- 12) Do you feel that you are "equal partners" in decision making regarding the forest resources in your territory (meaning you have as much say as the provincial government does and your input affects the result as much as provincial governments' input does)?
- 13 a) Have you been involved in any mapping/ inventory projects? 13 b) Please describe your involvement.
- 14 a) Have you been offered any education programs on ecosystem management processes and practices to give you some background to help with co-management in understanding the government's practices? 14 b) Please describe these programs. 14 c) What did you learn?
- 15 a) Does the forest industry recruit your members as employees? 15 b) How? 15 c) Has this changed since the Scientific Panel Recommendations were accepted in 1995?

16 a) How does your nation share information with the CRB? 16 b) How does the CRB solicit information/ concerns/ approvals from your nation for permit reviews in your area?

17 a) I understand that the Ahousaht have developed their own consultation process that Interfor and lisaak are already using. 17 b) Do you have a similar process for your traditional territory? 17 c) If so, how was it developed and how does it work? 17 d) If not, do you plan to develop one?

18 a) Are you aware of the Culturally Significant Areas mapping project done by the Ahousaht for their territory (that was used in developing the draft watershed plans)? 18 b) Have you, or do you plan to do something similar for your territory?

19) In general, would you say that the (Hesquiaht/ Tla-o-qui-aht) Nation's opportunities for meaningful participation in forest management in Clayoquot Sound has changed since the Scientific Panel recommendations were adopted in 1995? What have been the major successes? What have been the major challenges?

Questions on watershed planning:

20) Has your nation been working on cultural layers for any watershed unit plans? 21 b) How many of the watershed units are in your traditional territory?

21) Please tell me about the process you used to develop your cultural layers.

22) a) Was your nation involved in developing the other layers for the watershed plans in your territory?
b) Do you want to be?

Wrap up:

23) That's all the questions I have. Is there anything you would like to add?

24) Thanks very much for participating in this research project. Would you like me to send you a summary of my results? Would you like a copy of the transcript of this interview?

APPENDIX II E: CENTRAL REGION BOARD INTERVIEW SCHEDULE

General questions- Introductory:

- 1) How did you become involved with implementing the recommendations?
- 2) How are you currently involved?
- 3) How long have you been involved?

Questions related to Traditional Ecological Knowledge (TEK):

- 4) What does TEK mean to you?
- 5) Is TEK being incorporated into forestry planning and management? In what ways?
- 6) Are TEK and "scientific knowledge" being successfully integrated for forest management and planning in Clayoquot Sound?
- 7) Is the use of TEK affecting the way forests are managed? In what way?
- 8) What have been the major successes with incorporating TEK into forest management and planning? What have been the major challenges?

Questions related to Culturally Significant Sites:

- 9) What types of areas are protected from logging for First Nations interest? (AFTER they have answered, prompt with each of the various types listed in the Scientific Panel's Report, and ask for examples of each)
- 10) Do you feel that First Nations cultural areas are being protected sufficiently?
- 11) How is information gathered on culturally significant sites for protection?
- 12 a) What have been the major successes in protecting culturally significant areas as a result of the scientific panel recommendations? 12 b) What have been the major challenges?

Questions related to First Nations Participation in Forest Management/ Operations/ Planning/ Decision-Making:

- 13) Do you feel that First Nations are equal partners in decision making regarding the forest resources in Clayoquot Sound?
- 14 a) In general, would you say that First Nations opportunities for meaningful participation in forest management in Clayoquot Sound has changed since the Scientific Panel recommendations were adopted in 1995? 14 b) What have been the major successes? 14 c) What have been the major challenges?

Questions regarding the draft watershed plans:

- 15) Do you feel that the watershed unit plans will help to protect First Nations interests?

16) Do you feel that First Nations were equal partners in the watershed planning process?

17) Do you foresee any changes to the way that First Nations interests are addressed in Clayoquot Sound once the watershed plans are in place?

Wrap up:

18) That's all the questions I have. Is there anything you would like to add?

19 a) Thanks very much for participating in this research project. Would you like me to send you a summary of my results? 19 b) Would you like a copy of the transcript of this interview?

APPENDIX III: MAPS

APPENDIX III A: LOCATION AND MAP OF CLAYOQUOT SOUND

(adapted from National Geographic Maps, National Geographic, February 2003, p. 113)

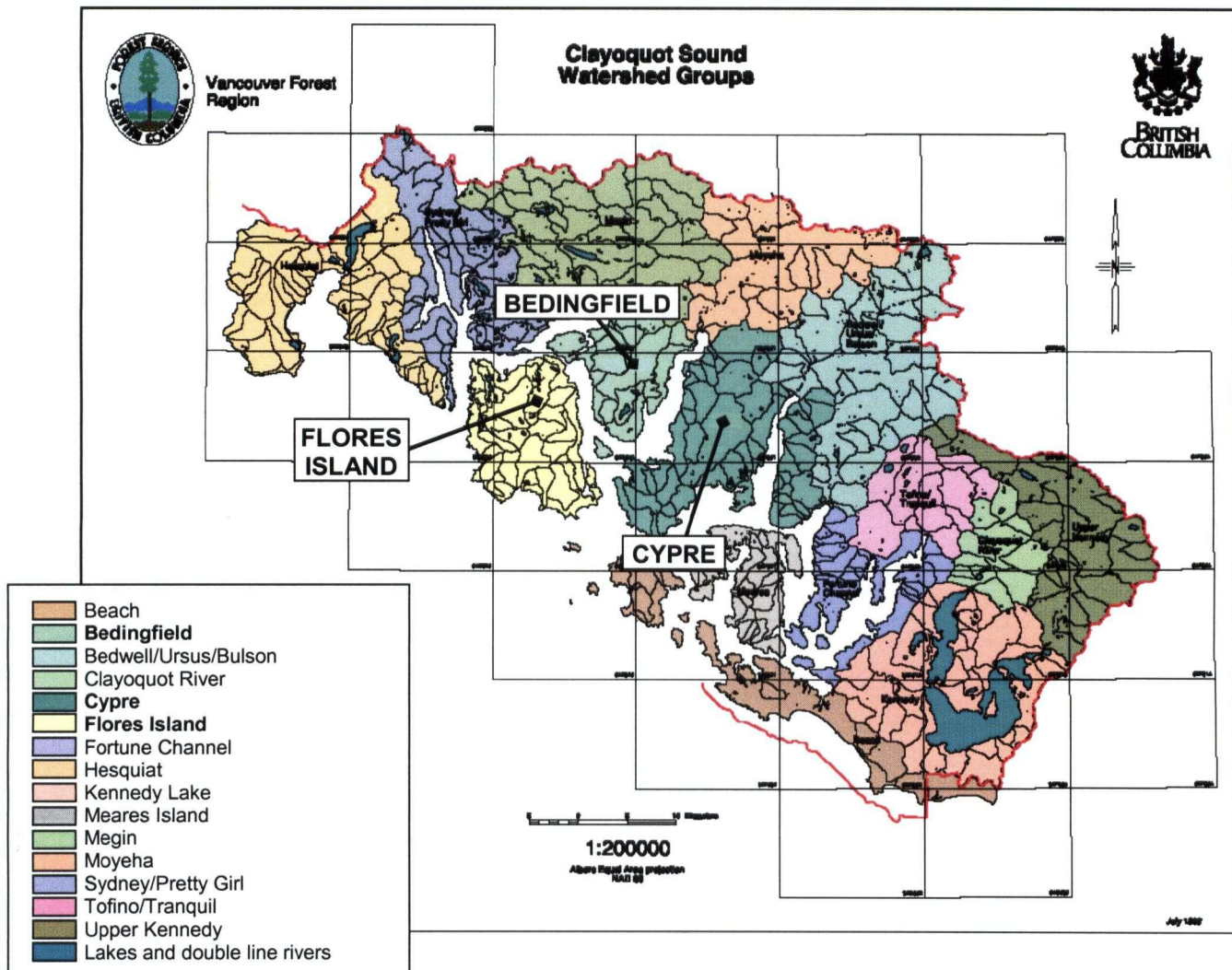


APPENDIX III B: WATERSHED PLANNING UNITS OF CLAYOQUOT SOUND

(draft plans are completed for Cypre, Bedingfield, and Flores Island Planning Units)

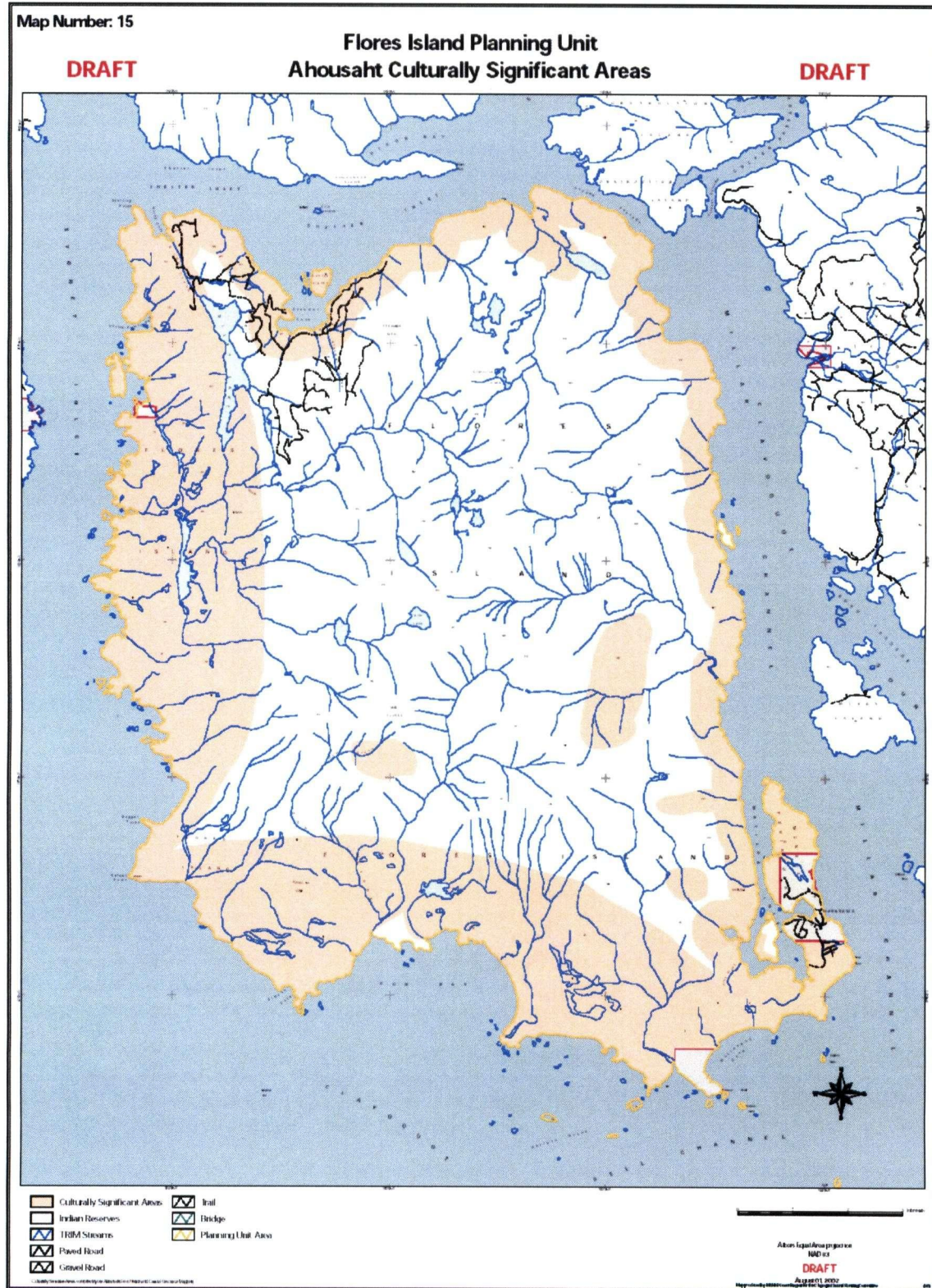
Adapted From: Central Region Board, 2002.

<http://www.island.net/~crb/pdfreports/watershedgroups.pdf>



APPENDIX III C: CULTURALLY SIGNIFICANT AREAS FOR THE FLORES ISLAND WATERSHED PLANNING UNIT

(source: Clayoquot Sound Technical Planning Committee, Flores Island Draft Watershed Plan)



APPENDIX III D: WATERSHED RESERVES FOR THE FLORES ISLAND PLANNING UNIT

(source: Clayoquot Sound Technical Planning Committee, Flores Island Draft Watershed Plan)

