Fisheries Co-management and the Tahltan First Nation: From the Aboriginal Fisheries Strategy to a Treaty Regime?

By

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Abstract

For several years now, the Canadian Federal government's Aboriginal Fisheries Strategy has provided a means for substantial co-management of fisheries resources by First Nations. Unfortunately, there is a widespread lack of understanding of the Aboriginal Fisheries Strategy (AFS) by all interested parties. This study examines the AFS agreement of the Tahltan First Nation of Northwestern British Columbia and other fisheries co-management agreements in place in B.C. It does so by comparing them with the provisions and process of development of comprehensive claim based co-management agreements elsewhere in Canada. It also offers an assessment of aboriginal fisheries co-management arrangements and provides insight into sustainable aspects of the regimes.

Evaluation criteria were derived from a 1994 study by McDaniels, Healey & Paisley that outlined objectives important in guiding the design of fisheries co-management initiatives involving First Nations in B.C. The most successful agreements and claims analyzed included the following achievements: Aboriginal rights were respected, fisheries co-management regimes were community-based, the community's economic well-being had improved, trust and cooperation had been built between parties, technical expertise had been developed, participation occurred at both a local and regional level, and adaptive learning was taking place.

This assessment also suggests that successful fisheries co-management regimes do not require ratification in treaties. The Tahltan Aboriginal Fisheries Strategy is a good

example, although it could still be further improved. Recommendations for improvement included: the development of a strategic plan; block funding or a trust fund; improved training programs; recognition of a more traditional leadership system; active participation at the watershed level; and improving and supporting local commercial fishery activities.

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List of Acronyms

AIP	Agreement-in-Principle
AFS	Aboriginal Fisheries Strategy
CARC	Canadian Arctic Resources Committee
COPE	Committee for Original Peoples' Entitlement
CYI	Council for Yukon Indians
DFO	Department of Fisheries and Oceans
DIAND	Department of Indian Affairs and Northern Development
ESSR	Excess Salmon to Spawning Requirement
FJMC	Fisheries Joint Management Committee - IFA
FWMB	Fish and Wildlife Management Board - UFA
FN	First Nations
GWWA	Gitxsan and Wet'suwet'en Watershed Authorities
HTC	Hunting and Trapping Committees - IFA
HTO	Hunters and Trappers Organizations - NLCA
IFA	Inuvialuit Final Agreement
IGC	Inuvialuit Game Council
INAC	Indian and Northern Affairs Canada
ITC	Inuit Tapirisat of Canada
JFMC	Joint Fisheries Management Committee - Nisga'a AIP
JTC	Joint Technical Committee - Nisga'a AFS
Lisims	(Nass River in Nisga'a language)
NCG	Nisga'a Central Government
NLCA	Nunavut Land Claims Agreement
NRTEE	National Roundtable on the Environment and the Economy
NWMB	Nunavut Wildlife Management Board
OHC	Office of the Hereditary Chief - Gitxsan First Nation
RCAP	Royal Commission on Aboriginal Peoples

List of Acronyms Cont'd

RRC	Renewable Resource Councils - UFA
RWO	Regional Wildlife Organizations - NLCA
SSC	Supreme Court of Canada
SFC	Skeena Fisheries Commission
SWC	Skeena Watershed Committee
TFN	Tungavik Federation of Nunavut
TNAC	Treaty Negotiation Advisory Committee - B.C. Government
TTC	Transboundary Technical Committee
UFA	Yukon Umbrella Final Agreement
YSC	Yukon Salmon Committee

1

Introduction

1.1 Introduction

Two dominant models of fisheries management operate throughout the world, community-based systems and state systems. Community-based systems have limited application while the state-based systems have never worked well (Osherenko1988a&b). Where they exist, community-based or local systems are based on self-regulation. These systems are decentralized and involve local knowledge of resources, customary practice, and cultural traditions. State systems are carried out through a central authority (e.g. senior government) and are based on scientific models and data. Enforcement in this system is conducted through federal and/or provincial government laws and regulations (Berkes, George & Preston 1991). Co-management involves a combination of these two "pure" management alternatives.

One major flaw in the scientific management approach used by the state is that it only considers the natural system and not the human system. A second flaw concerns who is responsible for making the regulatory decisions, in this case non-fishers (Larkin 1988; Pringle 1985). Human factors need to be taken into account in fisheries resource management because good science is of little use if management plans and regulations are not accepted by the fishers. A lack of understanding has followed from differing perspectives on the nature of the fishery. M.E. Smith (1995) pointed out that the people who manage the fishery are using a different mode of thinking than those working within

the fishery. These two different views play a role in each step and every aspect of the management process and need to be taken into consideration when trying to manage the resource. If management plans are to be successful, mutual understanding needs to be developed between these parties. Co-management requires that senior governments devote more time and effort to understanding those people who utilize the resource and to realize that the contribution of local knowledge is critical to managing resources.

The fisheries are a part of the public trust and federal and provincial governments have the responsibility to maintain them for future generations. These governments need local involvement - to develop and carry out management plans, and local people need senior government involvement - to give legitimacy to their organizations and the power to carry out the management schemes developed (Berkes 1989a). Co-management, a combination of state and community-based management, promises the best integration of conservation and the maximization of community benefits (Salwasser, Schonewald-Cox & Baker 1993; Weber 1995).

There is no worldwide definition of co-management and no one grand institutional design (Berkes, et al. 1991; Hawkes 1996; Lim, Matsuda & Shigemi 1995). Co-management is basically a form of power sharing. There are however a variety of approaches which have differing balances among parties, and the specific details of the implementing structures can vary a great deal. The Royal Commission on Aboriginal Peoples (1996) defines co-management as a blending of the two systems of management in such a way that optimizes the advantages of both and avoids the domination of one over the other. From a First Nations point of view, co-management makes it possible to articulate community concerns, protect the traditional economy, and safeguard rights

against threats to the fishery resource base (Berkes 1994). However, almost all co-management arrangements existing today represent a compromise between the Aboriginal objective of self determination and government's[1] objective of retaining management authority (Royal Commission on Aboriginal Peoples [RCAP] 1996). For this reason, aboriginal people regard co-management as an evolving institution.

This thesis examines the varying degrees that fisheries management activities are afforded to aboriginal groups in Canadian fisheries co-management agreements. The general focus is on four agreements involving the Federal government's Aboriginal Fisheries Strategy (AFS) and three comprehensive claim agreements. Specifically, opportunities are sought to improve the Tahltan First Nation's AFS agreement in relation to prospective treaty negotiations in B.C. The rationale for this study involves four themes: the changing face of fisheries management on the Pacific coast; the prospect of Aboriginal treaty settlements in British Columbia; the lack of understanding existing around the Federal government's Aboriginal Fisheries Strategy (AFS); and the lack of academic research on fisheries management in Northern British Columbia. These themes are discussed more below. The main areas of literature are drawn from common property, fisheries co-management, and aboriginal claim-based co-management. The thesis is written from a resource management perspective based on personal experience with the Tahltan AFS, literature review, and consultations.

[1] In this thesis the term government refers to senior levels of government (Federal & Provincial). Other levels of government, community or local and First Nations, are not included in my use of "government".

1.2 Thesis Focus and Objectives

The Canadian Federal government's Aboriginal Fisheries Strategy (AFS) provides an excellent example of an evolving fisheries co-management regime. The AFS has for several years now provided a means for substantial co-management of fisheries resources by First Nations. The AFS consists of negotiated agreements between the Federal government and First Nations, in either river-wide or specific First Nation agreements, that cover a spectrum of fisheries management activities including harvest levels, fish habitat improvement and enhancement, research, fisheries-related economic development and training. Its aim is to increase economic opportunities in Canadian fisheries for aboriginal people while achieving predictability, stability and enhanced profitability for all participants (Department of Fisheries and Oceans [DFO] 1992). The AFS was scheduled to end in 1999. After an internal program review in 1996, the AFS was extended as an interim agreement until comprehensive claims or treaties are settled with First Nations (Burdek, Per. Comm.). How the transition from these interim agreements to claim-based agreements will occur is far from clear.

This study examines the AFS agreement of the Tahltan First Nation and other fisheries co-management agreements in place in B.C., in comparison with the provisions and process of development of comprehensive claim-based co-management agreements elsewhere in Canada. This will be achieved through four objectives:

- to identify the components necessary for successful co-management;
- to review the Aboriginal Fisheries Strategy -- successes and failures;

- to assess the Tahltan situation in relation to other fisheries co-management developments in British Columbia and with those implemented under Aboriginal claims;
- to assess options and directions for Tahltan fisheries co-management in relation to prospective treaty negotiations.

The Tahltan First Nation was chosen as the main case study for two reasons: 1) the Tahltan people still rely on fish as a major food source and use traditional harvest methods, and 2) there is dissension among groups (Tahltan & Iskut) and the resulting political instability is common among First Nation groups in the North. Group fracture and breakdown is a systemic problem with the claims process. The instability involved and the difficulty maintaining a consistent approach on the AFS offers a really good window on the co-management process. It demonstrates how groups can work together to reach an end.

With respect to the Tahltan fishery itself, it is representative of west coast aboriginal people, and communities still dependent on the utilization of fishery resources. The very name "Tahltan" is generally thought to be taken from the first settlement of these people at the mouth of the Tahltan River -'where the fish (salmon) jump up the little water' (Tahltan River), or 'when the fish leave the water for the land', referring to the stranding of Salmon as they work their way over the shallows in the smaller river (Emmons 1911:13). Over generations, Tahltan people have maintained specific areas on the river where they put in their nets. Each family has a certain location where they fish and permission must be asked and given before anyone else fishes there.

1.3 Rationale

As mentioned earlier, the rationale for this study involves four themes: the changing face of fisheries management on the Pacific coast; the prospect of Aboriginal treaty settlements in British Columbia; the lack of understanding existing around the Federal government's Aboriginal Fisheries Strategy (AFS); and the lack of academic research on fisheries management in Northern British Columbia. Research in the area of fisheries co-management is timely because many researchers and stakeholders of Pacific fisheries have expressed concern over increasing environmental uncertainty, declining salmonid diversity and decreasing institutional capacity facing the resource (Gallaugher 1997, Glavin 1996, Pinkerton & Weinstein 1995, Walters 1995). Healey (1997:21) expressed his views at a Pacific Fisheries Think Tank Workshop, stating that there is no doubt that 1) many stocks of salmon have either been driven to extinction or are threatened by human activity, 2) cuts in funding and personnel have weakened the ability of federal agencies to administer and enforce their pattern of management, and 3) both of these are compounded by an emerging realization of uncertainty in salmon production processes. There is an urgent need for senior government and local people to come together to share information and responsibility for the fishery as the Federal government downsizes the Department of Fisheries and Oceans (DFO). Research analyzing different Canadian fisheries' co-management arrangements will allow new arrangements to learn from and build on what has gone before them.

The prospect of Aboriginal treaty settlements in British Columbia and how they will affect the management of the fishery resource is an important question. First Nations in B.C. have been backed by favourable court decisions which have confirmed Aboriginal

fishing rights (MacLeod 1989:264). First Nations have used these court decisions as a lever to create the opportunity for both themselves and other user groups to become co-managers. The Aboriginal interest goes beyond a "use right" as defined in the past. Their interest is general, proprietary and deep. It includes but is not limited to 1) priority above all other users for food, social and ceremonial fish as per the *Jack, John & John* decision in 1996, 2) a right to sale as per the test in the *Gladstone* decision in 1996, and 3) a right to management as per the *Delgam Uukw* decision in 1997 (joint management is the term used in that decision; Duiven, Per. Comm.). Chapter Two briefly describes the B.C. treaty process and its potential for accommodating the full Aboriginal interest. This research examines three comprehensive claim settlements in Canada to determine aboriginal involvement in fisheries management activities within these settlements. The claim agreements are compared to four B.C. fisheries co-management arrangements, offering an assessment of First Nations' involvement in fisheries management activities.

At present, many First Nations in B.C. are involved in the Aboriginal Fisheries Strategy as means to participate in fisheries management activities. Unfortunately, interested parties have demonstrated a widespread lack of understanding of the Aboriginal Fisheries Strategy. This includes aboriginal groups, non-aboriginal fishers, commercial fishers, the media, and general public. Most parties either have an incomplete or erroneous understanding of the purpose and context of the AFS including such important aspects as: Aboriginal and treaty fishing rights, the negotiation of AFS agreements and how they relate to Aboriginal and treaty rights, and co-management arrangements (DFO 1997). This work clarifies how the AFS operates and the various roles it plays in B.C. fisheries management arrangements.

The Stikine river, along with and other northern B.C. rivers and their fisheries, has been virtually ignored by academic researchers in the field of fisheries management. In an extensive literature search of fisheries management, only one article was found (Twitchell 1989 - Implementing the U.S.-Canada Pacific Salmon Treaty: The Struggle to Move from "Fish Wars" to Cooperative Fishery Management) in 137 citations, that mentioned the Stikine as a transboundary river. In literature on B.C. fisheries, the emphasis has been on the maintenance of high profile sockeye salmon stocks in the Skeena and Fraser rivers. The lack of attention to northern transboundary rivers is illustrated in Terry Glavin's (1996) publication *Dead Reckoning: Confronting the Crisis in Pacific Fisheries*. This author does not discuss or even label rivers north of the Skeena on the map on page xii of his book. DFO is doing its part in the northern systems with the help of First Nations but academic interest has focused on the coastal communities, and middle and southern B.C. rivers. This thesis intends to enlighten people on salmon management in the Tahltan First Nation's traditional territory, the Stikine watershed.

Overall, this work provides a comparative understanding of fisheries co-management agreements that will allow parties of these agreements to learn from and build on what has gone before them. It also clarifies how the AFS operates and the various roles it plays in northern B.C. fisheries management arrangements. This research is unique in nature. Previous fisheries co-management research has looked at international examples (Pinkerton 1994) or a mix of international and Canadian examples (Pinkerton 1989; Pinkerton & Weinstein 1995) to guide approaches in B.C. Others have focused specifically on aboriginal claims-based co-management structures to identify

basic difficulties or to identify successful components (Osherenko 1988a&b; Campbell 1996; MacLachlan 1994).

1.4 Relation to Literature

The examination of the evolution of fisheries co-management for the Tahltan First Nation in relation to prospective treaty negotiations draws on a diversity of sources. From this focus, the literature can be divided into three major areas: common property resource management; fisheries co-management; and claim-based co-management. Detailed discussion of these areas will occur in Chapter Two.

Common property, describing the physical situation of the fish, is used to distinguish a category of natural resources such as fish, wildlife, water, forests, etc. which are difficult to manage under a simple management arrangement such as private property (Berkes & Feeny 1990; Berkes, et al. 1991; Ostrom 1990). Management is difficult due to the mobility, scale, or opportunities for secret use of the resource (Pinkerton & Weinstein 1995). Fisheries resources may be managed under a number of different systems of rights or regimes including open access, state management, private management or community management. Early theorists used the term "common property" incorrectly, defining it as the absence of property rights (open access). Most problems (e.g. compliance/ enforcement, and ignoring human capital) attributed to fisheries are not a function of their common nature but of the management regimes they are under, mostly open access or state management (Pinkerton & Weinstein 1995). Therefore, we should be concerned with the "tragedy of mismanaged state property" instead of the "tragedy of the commons" (Marchak 1987a).

The role of the state encompasses legislation pertaining to access rights, habitat conservation, and licensing. It also involves capital, markets, the regulation of labour, unions, and the relationship between capital and labour (Marchak 1987a). This contradiction in mandates - to conserve the resource on one hand and the commitment to a process of private accumulation rights on the other hand - is the source of the government's inconsistent attempts to manage the fishery resource. Government regulations have failed miserably when trying to treat the symptoms of failing fisheries, let alone the cause (Crean & Symes 1996; McGoodwin 1990; Rogers 1995). The regulatory framework needs to do more than just regulate the fishers. It needs to regulate the forces that are driving the fishers to overfish.

The concept of fisheries co-management cannot be defined very precisely because of the wide variety of partnership arrangements and the degrees of responsibility sharing that are possible in management situations. Some see co-management arrangements on a vertical continuum such as that developed by Berkes, et al. (1991) and Berkes (1994), where co-management can be depicted on different levels, corresponding to the degree that local citizens share power in government decision making (Table 1). Others view co-management along a horizontal continuum (Pacific Fisheries Think Tank 1997), where co-management is depicted somewhere in between community and government as sole managers of the resource (Figure 2). Its position on this continuum is determined by the degree of public input into policy making. Advisory status and consultation (the lower rungs; the right side) are no longer adequate. Fishers strive for involvement in the decision making process and the authority to make and implement regulatory decisions

on their own (Duffy, Roseland & Gunton 1996). First Nations are looking to proceed to the top levels or the centre of the continuum.

Table 1 Levels of Co-management

7	Partnership/Community Control	Partnership of equals; joint decision-making institutionalized; power delegated to community where feasible
6	Management Boards	Community is given opportunity to participate in developing and implementing management plans
5	Advisory Committees	Partnership in decision-making starts; joint action on common objectives
4	Communication	Start of two-way information exchange; local concerns begin to enter management plans
3	Co-operation	Community starts to have input into management, e.g. use of local knowledge, research assistants
2	Consultation	Start of face-to-face contact; community input heard but not necessarily heeded
1	Informing	Community is informed about decisions already made

Adapted from Berkes, et al. 1991

Figure 2 Co-management Continuum

Community Agency Arrangement | Cooperative Management | Government Management

Adapted from Pinkerton & Weinstein 1995

Claim-based co-management regimes are seen as the preferable solution to First Nations as they provide long-term, legally recognized stability to resource management (RCAP 1996; Campbell 1996). They also provide a guarantee that traditional knowledge will be included in local considerations for proposed projects, forcing the scientific

community into using traditional and cultural knowledge in project planning (Arctic Institute of North America & Joint Secretariat 1995:116). Unfortunately, the claim-based co-management literature is not a coherent body of knowledge and does not build on concepts of earlier studies (Berkes, Fast & Berkes 1996).

Berkes, et al. (1996) found that the literature on co-management and land claims was characterized by a lack of synthesis, systematic analysis, and theory. The exceptions to this rule include: the search for common elements by Osherenko 1988a&b, Pinkerton 1989, Pinkerton 1994, and Pinkerton & Weinstein 1995; the degree of management power sharing by Berkes, et al. 1991, and Berkes 1994; theories of social learning by Dale 1989; and adaptive management by McDaniels, Healey & Paisley 1994. Very few papers have tried to make sense of co-management in land claims (Berkes 1989b; Clarke 1993; MacLachlan 1994; Winn 1991), and even fewer, the transition from non-claim to claim-based co-management (Campbell 1996; Doubleday 1989). Having identified these areas as information gaps, this study compares fisheries co-management provisions in Aboriginal claim agreements to fisheries co-management agreements in B.C. using criteria developed by McDaniels, et al. (1994).

1.5 Approach and Methods

Mitchell (1997) noted how the field of resource management has evolved from its linkages with traditional geographic investigation and resource analysis into new innovative ways to deal with environmental and resource management issues. He identified the key to managing resources as the ability to recognize the importance of change, complexity, uncertainty and conflict and to determine how to function in their

presence. In many cases, co-management is being used as a process to function in these situations. Co-management increases local participation, reduces conflict and creates equity among parties, seeks an acceptable balance of tradeoffs, recognizes system linkages, and works to reduce uncertainty.

Co-management regimes between government agencies and indigenous users employ varying organizational structures and processes, but the successful co-management regimes always give the indigenous user a sense of ownership in the system (Osherenko 1988a). To achieve this sense of ownership, a vision must be developed, a process created, a product generated, and implementation and monitoring ensured within the co-management regime (Mitchell 1997). Admittedly, every co-management structure operates under a distinct set of conditions and circumstances, but there is no need for all past failures and problems to repeat themselves. Osherenko (1988a:44) put it aptly when she stated that the real question for the future "... is not whether co-management regimes will increase in number and scope but whether the organizations created to implement them will work effectively".

A literature review is the main method of data collection. Personal experience within the Aboriginal Fisheries Strategy is also brought to bear through the main case study of the Tahltan First Nation. Unstructured personal interviews were also held when relevant - mostly fact-finding exercises. As an academic researcher on fisheries co-management, applied operational experience offered an essential opportunity to make practical evaluations of these regimes and suggestions for their improvement.

A comparative analysis is used to determine the degrees of success of various claim-based co-management arrangements within Canada and fisheries co-management

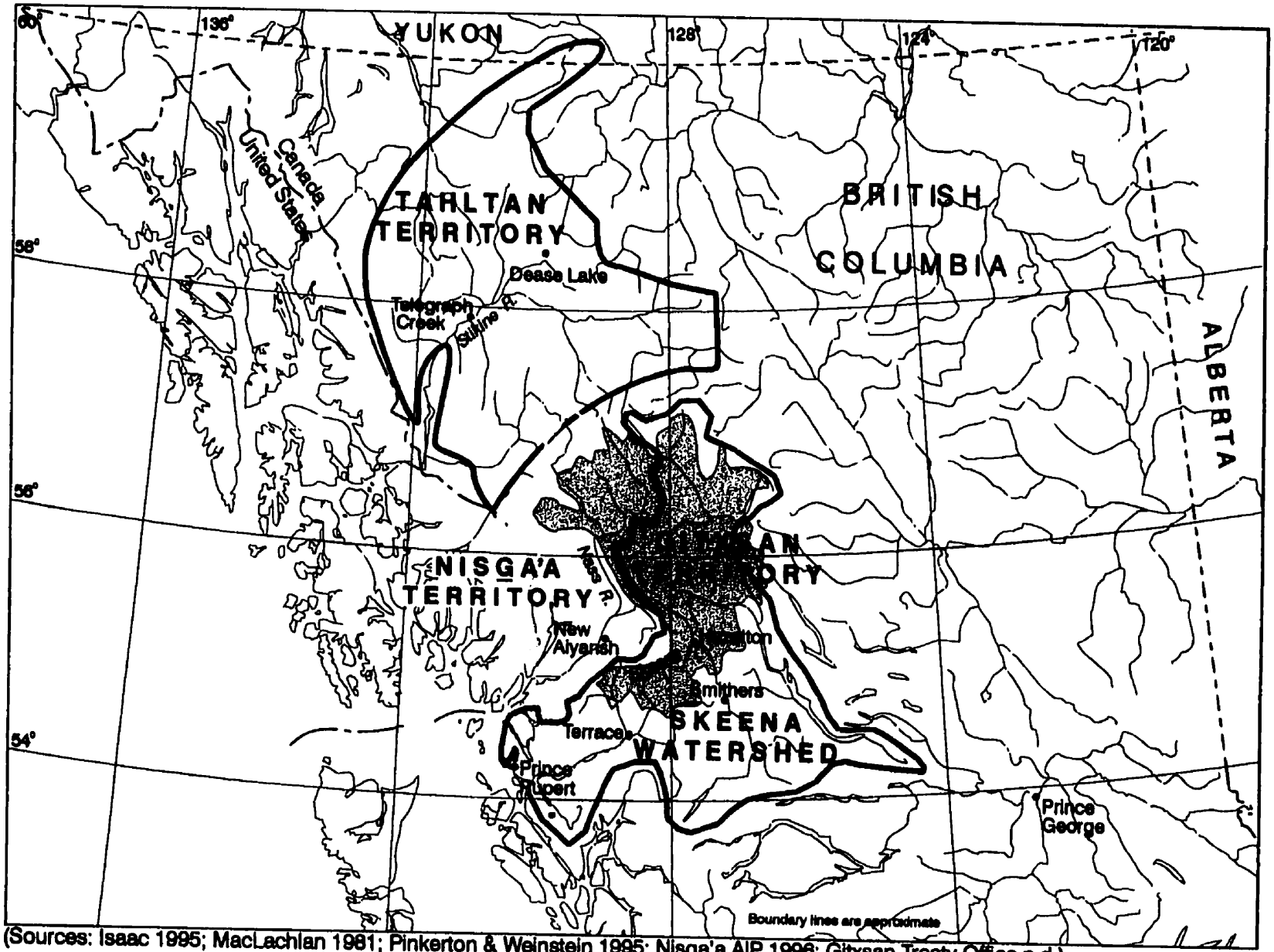
regimes within B.C. Criteria for evaluation are taken from McDaniels, Healey & Paisley (1994) who provide a hierarchy of fundamental objectives for fisheries cooperative management. This approach was chosen because it comes from the same premise as this thesis - the AFS and factors important to the design of successful fisheries co-management initiatives involving First Nations in British Columbia. Seven agreements are examined in two ways: 1) to determine the nature of aboriginal participation in fisheries management functions - policy making and evaluation; ensuring the productive capacity of the resource; compliance with rules; regulating fishery harvest; regulating fishery access; resource use coordination; returning optimum value to fishers (Pinkerton & Weinstein 1995), and 2) to ascertain the degree the agreements meet the criteria of – improving habitat, improving stock health, improving community economic well-being, improving equity, improving trust and cooperation, improving community involvement, improving opportunities for learning (McDaniels, et al. 1994). From this approach we learn where strengths and weaknesses lie in each agreement and general lessons for those involved in fisheries co-management arrangements.

This study tries to provide "appropriate" research by choosing three cases from the Canadian claims context and four cases involving the Aboriginal Fisheries Strategy in B.C. The assumption is that treaties in British Columbia will be similar to claims already settled in Canada but the fisheries provisions may vary due to the involvement of the province in treaty negotiations. Therefore, the examination of fisheries agreements that are already in place within B.C. will provide added insight into the province's influence on fisheries co-management arrangements. All of these cases are then evaluated by the

criteria developed for successfully managing the B.C. salmon fishery with First Nation involvement (McDaniels, Healey & Paisley 1994).

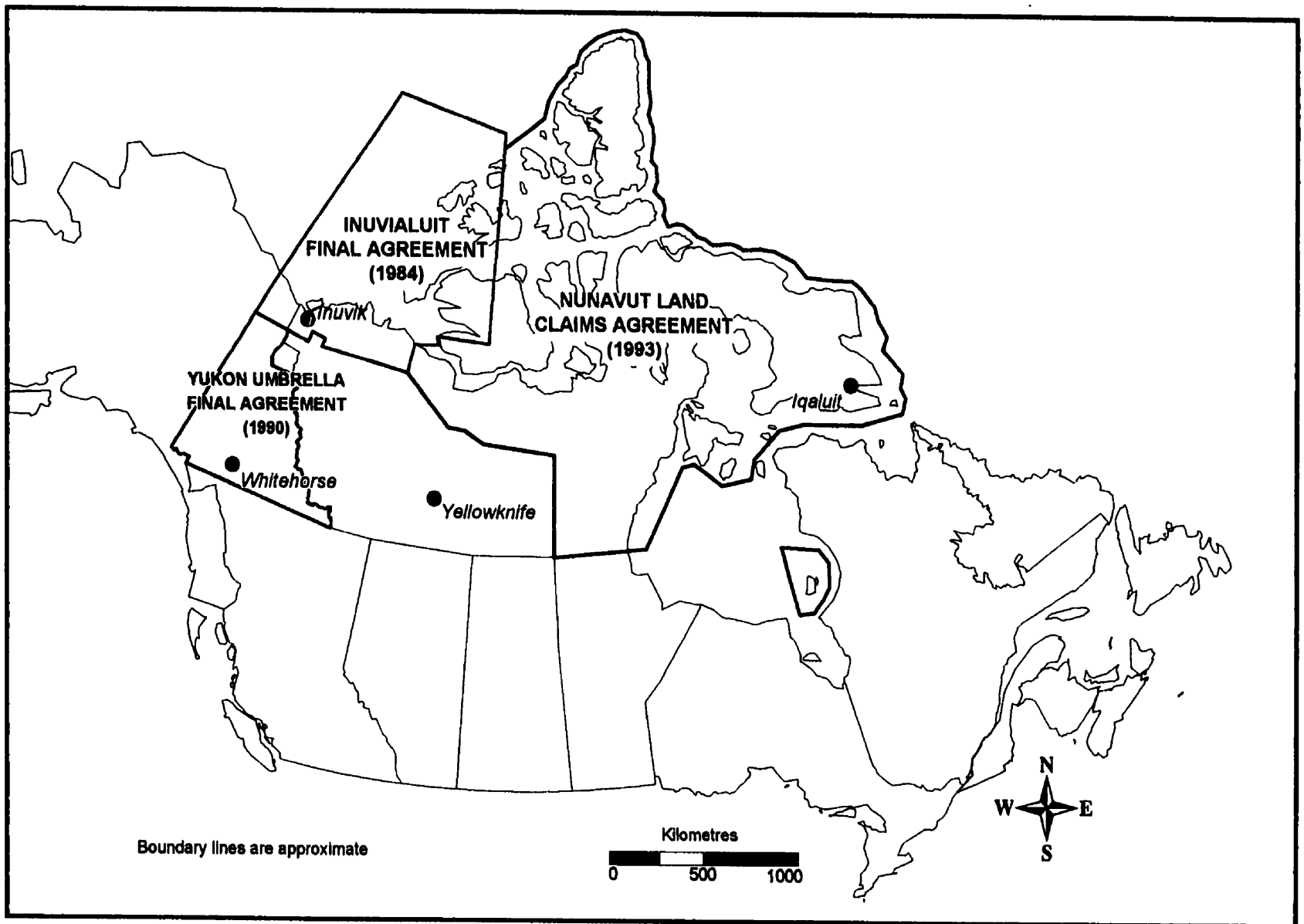
Within B.C., emphasis will be on the Gitxsan fishery management approach (Pinkerton & Weinstein 1995), the Nisga'a Agreement-in-Principle (Government of Canada, the Province of British Columbia & the Nisga'a Tribal Council [Nisga'a AIP] 1996), and the Tahltan AFS (DFO, the Tahltan First Nation & the Iskut First Nation 1995). An examination of the Skeena Watershed Committee will offer insight into a broader level of multiparty co-management (Pinkerton & Weinstein 1995; Pinkerton 1994). These case studies cover a diversity of agreements within the province of British Columbia (Figure 2).

In the northern claim-based literature, attention will be given to the Inuvialuit Final Agreement (Department of Indian & Northern Affairs [IFA] 1984), the Umbrella Final Agreement in Yukon (Government of Canada, the Council for Yukon Indians & the Government of Yukon [UFA] 1993), and the Nunavut Land Claims Agreement (Inuit of the Nunavut Settlement Area & Her Majesty The Queen in Right of Canada [NLCA] 1993) to show the fisheries management functions that were received and the co-management systems that were set-up as a result of claim settlements. These Aboriginal claim settlements were chosen because they represent the major modern comprehensive claim agreements with extensive resource provisions (Figure 3).



(Sources: Isaac 1995; MacLachlan 1981; Pinkerton & Weinstein 1995; Nisga'a AIP 1996; Gitxsan Treaty Office n.d.)

Figure 2 Location of British Columbia Case Studies



(Sources: IFA 1984; Pelly 1993; Campbell 1996)

Figure 3 Location of Aboriginal Claim Settlement Case Studies

1.6 Organization of Thesis

This thesis includes six more chapters. Chapter Two delves into literature concerning common property resources, fisheries co-management, and claim-based co-management. This sets the stage for discussing fisheries co-management arrangements in relation to comprehensive claims. The Aboriginal Fisheries Strategy is reviewed in detail in Chapter Three to provide the reader with information on this poorly understood program. Chapter Four reviews previous research evaluating co-management regimes and presents this study's evaluative framework derived from a 1994 study by McDaniels, Healey & Paisley.

Descriptions of the seven case studies and analyses of each case's fisheries management functions and in relation to the McDaniels et al. criteria appear in Chapter Five, while Chapter Six contains a summary of the agreements' strengths and weaknesses. Chapter Six also identifies general lessons for First Nations in fisheries co-management arrangements. Chapter Seven has recommendations for the Tahltan First Nation and other First Nations to improve their participation in fisheries co-management before the settlement of Aboriginal claims.

2

Fisheries: The Resource, Their Management, and Aboriginal Claims

2.1 Overview

An examination of the evolution of fisheries co-management for the Tahltan First Nation in relation to prospective treaty negotiations draws on a diversity of literature. It encompasses literature on the fishery resource itself, its "common" nature, and the different ways in which this resource can be managed. This is important because the fishery's property status determines who has the right to manage or control it. Fisheries management in Canada is carried out by the state. Literature in this area describes the state's dependence on a scientific management approach that has created many problems for the fishery resource, ranging from overcapitalization to overfishing. This literature provides a basis for the argument of local user involvement in decision-making and calls for a new approach to fisheries management -- co-management.

A review of co-management literature has been included as necessary background information for discussing fisheries co-management. It outlines co-management's evolution and three necessary components for a successful regime. Fisheries co-management literature illustrates an alternative to the state's destructive fisheries policies and describes ways to involve local people to maintain a sustainable fishery resource. Literature on Aboriginal claims provides background information on the process, both within Canada and B.C., what claim settlements have offered aboriginal people and the

resource co-management institutions they create. The last area of literature this study draws from is claim-based co-management. Aboriginal groups across Canada look to the legal right for aboriginal participation in resource management activities in claims to increase their participation in co-management arrangements.

2.2 Fish: A Common Property Resource

Ocean resources, including fish, are often called the 'common heritage of mankind', a global property resource (Berkes 1986). This 'common property condition', which assumes that users cannot or will not erect institutions to preserve the resource, has been blamed for a host of social ills (e.g. pollution, misallocation of labour and capital, and resource depletion). The resource management models that have been used to study this phenomenon are: the tragedy of the commons - resulting in a 'free-for-all' which degrades the resource and benefits no one; the prisoners' dilemma - in which individuals act to only benefit themselves leaving everyone else with nothing; and the logic of collective action - a theory in which individuals with common interests will act in a self-interested way unless there is some device to make them voluntarily act in the common interest (Ostrom 1990). Policy prescriptions arising from these models call for various kinds of regulation through an external agent or authority to protect natural resources and ensure long-term economic viability.

The property status of fish and fishers is a central issue in fisheries management. Who has the right to fish, the right to manage the fishery, the right to exclude others, the right to profit from the sale of fish (Marchak 1987a:3)? Early theorists believed the fact fish are not privately owned until caught sustains the argument that competing users will

ultimately destroy the common resource because no one is charged with its conservation. Their interpretations of the 'common property' concept that 'everybody's right is nobody's right' (Hardin 1968; Gordon 1954), have been challenged (Ciriacy-Wantrup & Bishop 1975; Marchak 1987a; Pinkerton & Weinstein 1995).

The term property refers to a bundle of rights in the use and transfer of natural resources and their associated institutional relationships. The "exclusion of all who are not either owners themselves or have some arrangement with owners to use the resource in question" is a fundamental feature of the property concept (Ciriacy-Wantrup & Bishop 1975:715). Taking this into consideration, 'un-owned resources' (under conditions where no institutional arrangements exist) cannot be referred to as common property. Common property represents a well-defined set of institutional arrangements concerning who may use the resource, who may not make use of the resource, and the rules governing how the accepted users shall conduct themselves (Berkes 1986:224). Property held in common by a particular group (e.g. First Nation), also termed communal property, does not imply the inevitability of resource depletion. These groups have exclusive rights to an area and the internai organization necessary to manage the resource and ensure that all members enjoy the benefits (Marchak 1987a). In the case of the fishery resource, these groups usually lack management rights normally associated with property.

The rights to manage or control a resource (fishery) have four possible forms: open access, private property, state, and community. Management rights and duties may include one or several functions of management. Divided into seven major categories, these functions include: 1) decision making with respect to the resource (policy-making and evaluation), 2) control of habitat and waterways (productive capacity of the resource),

3) allocation of licences (regulating access), 4) limitation on capture capacities (regulating harvest), 5) coordination of resource users to avoid conflict, 6) enforcing or implementing rules, and 7) maximizing benefits to fishers (Marchak 1987a; Pinkerton & Weinstein 1995). The management system selected determines the distribution of benefits, access rights, and obligations within the fishing industry.

Open access is an absence of rights. Open access management of fishery resources do not work once the fishing capacity of the fleet approaches or exceeds the ability of the stock to sustain it (Berkes 1989a). In this situation, the resource is over-exploited because there was no control or management exercised. Private ownership rights have been seen as the alternative to this lack of control. It is said that private owners have a greater incentive to act as responsible stewards because they directly benefit from the preservation and maintenance of a resource (Gordon 1986). This assumption does not hold true when market mechanisms are added to the equation. The catching of fish 'for food purposes' changes to the catching of fish 'for sale'. Fish become just another commodity which the market is suppose to be able to redistribute to the most efficient user. As the following example will demonstrate and Waugh (1984:xix) states "the market mechanism cannot be relied upon to achieve efficient allocation".

Attempts to allow private harvest management (e.g. individual transferable quotas) have put the accumulation of wealth above community and socioeconomic considerations such as employment stability and equitable catch distribution (Charles 1994). Individual transferable quotas permit companies and individuals to buy and sell fishing rights allowing them to maximize their own net benefits without full consideration of the economic costs they impose on others. For example, incentives may

be created to over-exploit small or low-valued fish so as to maximize the value of each quota allocation. The problem is that unlike other resources in which harvesting rights for a particular region can be formally acquired, then used as a means of guaranteeing access to the resource, such private property rights have little point in the fisheries where the fish can be easily captured outside the boundaries of a designated area (Warriner 1987:331).

For the most part, fish have been treated as crown property or that which is held in the 'public trust'. The state has assumed the right to unilaterally alter the access and harvesting practices of citizens in what is still called a 'common property resource' (Marchak 1987a). Such a management body is required to balance resource ecology, economics and social impacts (Fricke 1985). The state approach to managing natural resources has been a combination of access rights, leasing systems, and economic incentives. It has attempted to place limits on input factors (e.g. vessels, fishers, gear, and timing), unaware that limitation of one factor creates incentives to compensate elsewhere (Bigford 1986; Waugh 1984). An example of this type of state management is the Canadian Federal government's Davis Plan for the salmon fishery. It was introduced in 1968 with the intention of conserving the stocks by eliminating overcapitalization and excess labour usage. It consisted of four phases: 1) to freeze the fleet by licensing only those who could demonstrate a dependence on the salmon fishery, 2) to reduce the fleet by buying out and returning excess vessels, 3) to improve vessel standards and product quality, and 4) to introduce 'economically optimum regulations' to improve fishing effort for the reduced fleet - never implemented (Marchak 1987b). The number of fishers was supposed to decline with the decreasing availability of the licences. The fundamental error was in their basic assumption that vessel numbers controlled the intensity of fishing.

The licensing of vessels rather than individuals and the saleability of the licences lead to overcapitalization as the owners responded to federal government incentives of subsidies and loans to upgrade and enlarge their property. By the end of the program, the total fleet capacity was infinitely greater than when it began in 1968.

Gordon (1986) critically assessed the U.S. government's *Magnuson Fishery Conservation and Management Act* of 1976. He was concerned with the extent to which the Act's concepts and processes were being accepted into the social and economic system. He admitted that the current fisheries management system was too complex to work well, that fisheries management works better in theory than practice, and that fisheries management has not often met real needs. His criticism was directed at the realization that not everyone wants fisheries management to work well and therefore, blames the system. He pointed to lack of knowledge of the resource and user group conflict as hindering any positive effects that regulations could make. He concluded that the resistance to the Act by all parties has prevented its integration into the social and economic systems and recommends a change in attitude.

Most other researchers focus on the failure of state management and support Marchak's (1987a) theory of the "tragedy of mismanaged state property" (Crean & Symes 1996; McGoodwin 1990; Rogers 1995). This theory puts the full blame for fisheries problems on senior government since fishers cannot control licensing and they are not allowed to manage common (communal) property. These researchers think attention should be focused on the management of licensing access to fish, rather than on the licensed fishers. The state administers the system of property rights and the system of accumulation (Marchack 1987a). Most problems attributed to fisheries (e.g. compliance/

enforcement, ignoring human capital, and too many big and powerful boats) are not a function of their common nature but of the management regimes they are under, mostly open access or state management (Pinkerton & Weinstein 1995).

The last form of fisheries management rights is through a community. Communities usually exercise rights to manage their local fisheries informally. They may not have the state's authority to do so but they make their own rules to solve problems that arise. Local level mechanisms provide a feasible set of institutional arrangements that work best when 1) the resource is being used by a relatively small and homogeneous group harvesting specific species, 2) the fishers agree that there is a problem that needs solving, 3) there is a way for them to make the rules and monitor activities (observe fisher's behaviour), and 4) a system of threats or punishments is in place (Berkes 1986; Berkes 1989a; Kuperan & Abdullah 1994; Ostrom 1990). Large scale and offshore fisheries, where fishers have the ability to deplete one area and move on to another, are less likely to be conducive to local-level management. The larger the fishery, the more heterogeneous the fishers and their objectives, and the more serious the challenge to local decision makers.

Once again, determining the property status of the resource – who has the right to fish, the right to manage the fishery, the right to exclude others, and the right to profit from the sale of fish – is central in fisheries management. There are potentially four ways to manage a fishery (open access, private, state, and community), of which the state approach is the most widely used in Canada. The next section describes the state's dependence on a scientific management approach which has created many problems for the fishery resource, ranging from overcapitalization to overfishing.

2.3 Fisheries Management

Renewable marine resources in Canada are under Federal government jurisdiction, as they 'belong' to the people of Canada, not any individual group, including commercial fishers. This government chose to manage the fisheries using a techno-centric model to follow in which harvest rates by species, area, season, gear type, etc., are controlled through the Department of Fisheries and Oceans under the *Fisheries Act*. The objectives of fisheries management have changed over space and time but they have always been economic and/or crisis orientated, with biological principles dominating the basic concepts of fisheries management. The scientific models (e.g. maximum sustainable yield, maximum economic yield) used to estimate fish population numbers are not only riddled with uncertainty, they completely ignore the human system with which these fish populations interact (Pringle 1985). The optimum sustainable yield model attempted to include biological, economic, legal, social, and political considerations. Its hope was to modify economic efficiency by local considerations. Unfortunately this model was not based on a coherent body of scientific knowledge, and was too vague to work when put into operation (Waugh 1984).

The challenge for management is to provide an institutional and regulatory framework within which the desired level of fishing effort can be achieved. "Some of the biggest problems in fisheries management stem from the fact that our management agencies have been trained to manage fish populations but not people. Yet the main way fisheries are managed is by regulating the activities of the human harvesters" (Pinkerton & Weinstein 1995:1). Harvesting strategies generally depend heavily on estimates of the size of the stock and its productivity. This information is never perfect (incomplete,

inconsistent and contradictory) and disagreements occur over the Federal government's conservative response to these uncertainties. Different types of regulations have been employed to optimize the level of fishing effort: closed seasons and aggregate quotas; control of areas to be fished; restrictions on fishing gear and technology; limitation of entry by taxation; limitation of entry by licences; and limitation of entry - transferable quotas (Waugh 1984). Regulations based on these scientific numbers alone are of little consequence when fishers have their own ideas on how many fish are "in the sea". Pearse & Walters (1992:171) go as far as to say that "biologists, whom the fishers must depend on to predict the effects of harvesting stocks, have no business deciding how much risk should be taken, or how the various benefits and costs of resource management decisions should be balanced".

The lack of understanding between people that manage the fishery and people working within the fishery follows from their different perspectives on the nature of the fishery. On one hand, managers tend to view the system in a linear way: ordered, balanced, and in dynamic equilibrium. The study of such a system depending on a local perspective of various species, year classes, sub-regions of the area in question, and catch statistics (M.E. Smith 1995). On the other hand, fishers see nature in a non-linear way: random, disordered, non-causal in their linkages, and chaotic. This system's natural processes are complicated and dynamic; sequential patterns, if they do exist, can stretch over so long a period that they appear aperiodic (Wilson, Acheson, Metcalfe & Kleban 1994). It has been recommended that the fishers' non-linear view be accepted and incorporated into senior government management plans (Pringle 1985; M.E. Smith 1995; Wilson, et al. 1994). The state's ability to manage this coastal resource has been

overestimated while the experience and capacities of local management systems have not been fully considered. Managers need to realize and accept that fisheries management is a political issue which requires the involvement of local fishers to correct the biophysical and institutional problems (McGoodwin 1990; Pinkerton & Weinstein 1995; Rogers 1995; Walters 1995).

British Columbia's fishery is not an exception to the "tragedy of mismanaged state property". Walters (1995:5) bluntly summarized his thoughts on fisheries management in British Columbia:

> "The management approach has produced an institutional quagmire with grossly overcapitalized and bitterly competitive fishing fleets, an allocation system among fishermen that is dominated more by the threat of civil disobedience than by reasoned analysis of where rights and privileges ought to lie, and a publicly costly burdensome apparatus for both biological management and economic support of fishermen".

Walters (1995:50), one among many, recommends a change from the centralized authority and public management of fisheries toward management where as many of the functions of management as possible are put in the hands of the people who live by the resource (Marchak, Guppy & McMullan 1987; Pinkerton 1994; Pinkerton & Weinstein 1995). Authority, responsibility and accountability should be vested in the stakeholders who gain and lose from fishing. Everyone has a general right to use a common property resource, but this right is usually undercut by actions of interest groups that diminish the value of the resource for others in society (Regier & Grima 1985). The potential abuse of an ecological system is minimized by making certain that local groups are allocated management rights. The combination of government and fishers working together to develop new economic strategies creates more effective development programs because it

forces both parties to spell out principles and rules and commit themselves to being accountable to objective criteria in implementing them (Pinkerton &Weinstein 1995).

The literature presented on fisheries management forms a strong argument for the involvement of local users in decision-making, calling for a new approach to fisheries management. This new approach would involve government and local people working together to sustainably develop the fishery resource. The term used for this approach is co-management.

2.4 The Evolution of Co-management

How is co-management distinguished from other resource management systems, such as government regulation or community-initiated regulation? Co-management takes a middle course between government regulations and community initiated regulations. It is a "meeting point between overall government concerns for efficient resource utilization and protection, and local concerns for equal opportunities, self determination and self control" (Jentoft 1989:144). Co-management is short for cooperative management and is used interchangeably in the literature with joint management and collaborative management (Berkes, et al. 1996).

Co-management involves the combination of two 'pure' management alternatives, the state-level and the local-level (Berkes 1981; Berkes, et al. 1991; Feit 1988a; Usher 1986). State-level management is carried out by a centralized authority, is based on scientific data, and enforcement is under government laws and regulations. Local-level management is decentralized, consensus-based, derives its knowledge from local people, is self-regulated and enforced through social sanctions. There has always been tension

and conflict between these two types of management; government managers do not always respect local systems as they are based on customary practice and not formal science; local people do not always believe biologists and their scientific models (Berkes 1994; Osherenko 1988a). Co-management agreements offer a mechanism to resolve disputes and provide a framework for managing future conflict in a fair, effective and efficient manner (Hawkes 1996). Co-management can be a means and an end with fairness building understanding and trust; effectiveness, providing opportunities for joint work and the incorporation of value differences; and efficiency, in the sense that it is able to provide a sense of ownership to the resource user.

Osherenko (1988a:13) envisioned a co-management regime as an institutional arrangement in which government agencies with jurisdiction over resources and user groups enter into an agreement covering a specific geographic region and spelling out: 1) a system of rights and obligations, 2) a collection of rules, and 3) procedures for making collective decisions. While this basic view is not denied, co-management does not have one worldwide definition or consist of one grand institutional design (Berkes, et al. 1991; Hawkes 1996; Lim, et al. 1995). The term broadly refers to various levels of integration between local and state systems within which the arrangements and organizational set-ups vary greatly.

The Royal Commission on Aboriginal People (1996) groups co-management arrangements into three categories: crisis-based co-management, in response to non-sustainable resource exploitation as a short term measure in advance of more permanent co-management systems (some to be codified in comprehensive land claims); community-based resource management, in response to demands to incorporate local

concerns in resource exploitation and/or devolution by senior governments of resource management responsibility for fiscal reasons; and claims-based co-management, established under comprehensive claims agreements. These distinctions are subjective and there is much overlap among them. For example, comprehensive claims negotiations - such as those leading to the *James Bay Agreement* - were themselves a response to crisis, while the Beverly Kaminuriak Board which began in crisis set some important precedents and lends its model to claim-based regimes. By focusing on the evolution of a co-management arrangement, however, these distinctions serve as useful categories with which to organize literature in this area. Each category will be investigated through an example: the Beverly Kaminuriak Caribou Management board, one of the oldest and most widely known co-management arrangements - a crisis situation; the Lofoten fishery in Norway, a well documented international case which might be the earliest continuous co-management arrangement - community encouraged regulation; and the *James Bay and Northern Quebec Agreement* as the first settled Canadian Aboriginal claim. Further details on fisheries co-management arrangements, Aboriginal claims, and claim-based co-management follow.

The Beverly and Kaminuriak barren ground caribou herds range over a vast area covering parts of northern Manitoba and Saskatchewan, as well as the southern Keewatin and southeastern Slave regions of the Northwest Territories. In the late 1970s biologists and government managers believed that both herds had diminished to fractions of their previous populations, and were still declining (Thomas & Schaefer 1991). The user groups felt that government estimations of herd sizes were inaccurate and refused to accept this population data in light of their own experiences (Scotter 1991). Instead of

increasing enforcement, which would have brought no end to the arguments from aboriginal users, the government brought the harvesters into the decision making process.

The negotiations culminated in a ten year management agreement establishing the Beverly-Kaminuriak Management Board (The Board) in 1982. It was signed jointly by federal, provincial, and territorial governments as they were the parties responsible for the funding. The Board is composed of thirteen members - five government and eight user members representing aboriginal peoples and/or their associations. It should be noted that the Board was created under a favorable political climate and has not had to deal with the 'crisis of scarcity' - it became apparent that both herds were in fact numerous (Freeman 1989:99).

The Board has often been regarded as a model for cooperative management and its operation has been studied in detail (Cizek 1990; Osherenko 1988a&b; Thomas & Schaefer 1991). In the strictest sense, the Board is only advisory but in practice a large portion of its recommendations have been accepted by governments. Decisions of the Board are most often based on consensus which is the best evidence that it is a useful, working partnership (Scotter 1991). It has managed to combine science with the knowledge and practices of the users and has succeeded because of the people involved (long terms of chairman and members). It has set precedents and a model for the claims-based regimes in the north and ad hoc arrangements elsewhere in Canada.

The Lofoten cod fishery is an example of fisheries co-management that has been in existence for more than ninety years. Lofoten is the name of a Norwegian island district just north of the Arctic Circle. The crux of their problem was the high number of fishers in this fishery which caused enormous crowding problems on the fishing grounds

and gear conflicts. During the 19th century, many different regulatory approaches were used to solve this problem, but it was not until the 1890s, when co-management principles were introduced, that a change occurred (Jentoft & Kristoffersen 1989).

The Norwegian government enacted two laws to manage the fishery in this region. The first, the *Law of Order* (1816), privatized access to fishing grounds to solve the problems of scarcity of space and gear conflicts. The consequence of this system was that fishing rights developed into transferable rights where fishers had to purchase access to the Lofoten fishery, excluding newcomers and poorer fishers. The second law, labeled the *Free Law* (1857), maintained free access to the Lofoten waters and had few restrictions on the fishery itself. The problem that arose from this law was that the fishing grounds were dominated by the biggest and most powerful boats, neglecting the rights of small-scale fishers. The fishers demanded an entirely new law for the Lofoten fishery.

The *Lofoten Law* (1897) established the existing rules of co-management by prescribing certain principles for a democratic organization of fishers, thereby putting them into decision-making positions. Co-management was chosen because 1) an arena was needed for different gear groups to meet and settle differences, 2) the fishers felt that only experienced people were the best suited to make the regulations, 3) fishing grounds varied from district to district making decisions impossible if you were not on the fishing grounds and 4) it created a more flexible and reactive regulatory system (Jentoft & Kristoffersen 1989). Extensive regulations were chosen instead of limiting the number of boats because the fishers support the idea that every participant has a right to make a living.

The *James Bay and Northern Quebec Agreement* (1975) came about because of the Cree protests of the province's plans for large-scale hydro-electric development. The Agreement provided for the Aboriginal right to hunt, fish, and trap all species of fauna, at all times, over all categories of land in the entire territory utilized by aboriginal groups subject to the principle of conservation (Feit 1988b). It established the legal right of First Nations to participate in resource management decisions and the legal recognition of the Cree system of renewable resource management with its key institutions (hunting territories). The key co-management institution was the Hunting, Fishing and Trapping Coordinating Committee. The Committee has sixteen members made up of representatives from the Cree, Naskapi and Inuit parties; the Quebec government; and the Federal government with development corporations attending as observers (Drolet, Reed, Breton & Berkes 1987). It functions in a strictly advisory capacity, making recommendations to the appropriate federal or provincial ministers.

This Committee has served as a forum from which several cooperative endeavors were initiated (on eiders, beluga whales, and caribou). However, due to the imprecise wording of clauses and member friction, there are still disagreements on certain basic philosophy and objectives. Overall, it does offer the combination of traditional and scientific knowledge and the discussion and development of joint management and action plans.

Berkes (1989b) examined this Committee and found a major problem - it forces aboriginal people into a government-type institutional setting. Usher (1982) suggested that the government-institutional set-up be modified by a deeper understanding and respect for Aboriginal customary laws and traditions to allow the Committee to jointly

develop effective ways to manage at the local level. Later claims co-management processes have tried to, and continue to, learn from and adapt this model.

The examples examined above differ in scale, form, and delegation of responsibility. They demonstrate various ways resource users can be involved in management activities to benefit not only the stakeholders, but the resource as well. Integrating local knowledge, joint harvest planning, and local understanding of enforcement regulations are a few of the strengths these agreements hold. Of these three cases, weakness occurred when co-management was not based on or did not continue down to the community level. Crisis management is not a good platform as issues seem too critical and the timeline too short to fully consider local concerns (Pike, Richard & Goodman 1991). Within the Beverly-Kaminuriak Board, aboriginal communities had members to represent them on the Board but they were not an actual party to the agreement. Co-management can be difficult to implement if structures come from government and not the people. With both the Beverly-Kaminuriak Board and the James Bay & Northern Quebec's Hunting, Fishing and Trapping Coordinating Committee, there is a need to move away from government-type institutional set-ups and increase their practical linkages forward to Ministers and back to the user groups. These examples demonstrate that co-management can be viable, but that it must be flexible and tailor-made for each particular setting (McGoodwin 1990; Pinkerton & Weinstein 1995; Walters 1995).

An important property of co-management is that it is a process, rather than a tool, of management. The co-management process defines stakeholders and incorporates them through their representation into various levels of resource management decisions (Hanna

1994). The primary goal of co-management is appropriate, efficient and equitable management through reduced costs and community development. The key ingredients for successful co-management regimes are:

1) a strong link to and support from community and government institutions, directly or through a co-management body;
2) effective participation of users in decision-making processes and in the design of a strategic plan; and
3) capacity building (e.g. adequate funding, training, and the removal of cultural and linguistic barriers)

(Adapted from Osherenko 1988a&b; National Roundtable Table on the Environment & Economy [NRTEE] 1998).

The first ingredient is necessary for long-term stewardship, for a co-management system is only as good as the institution charged with its implementation. The second component allows for sound decision-making that will be supported by the public. The third component, seeks to develop the capacity within people, communities, governments and other organizations to recognize, document and resolve their own problems (NRTEE 1998:xv). The role of creative and devoted individuals to the co-management process should be stressed. To acquire these ingredients, the government and the user must be 'speaking the same language' and utilizing all the knowledge (both scientific and traditional/ indigenous) available in their management decisions. Co-management as defined by Scotter (1991: 309) involves "government devoting more time and effort to understanding those people who utilize a resource and realizing that their contribution of local knowledge is critical to managing resources".

The Arctic Institute (1995:114) defines traditional knowledge as an accumulated body of knowledge that is rooted in the spiritual health, culture, and language of the people handed down from generation to generation. It is based on intimate knowledge of the land, water, snow, ice, weather, wildlife, and hunting. It is practical common sense, good reasoning, and logic built on experience. Projects designed to obtain this information are vital to co-management decision making, but only become valuable if the government is willing to acknowledge these efforts and the decisions that come out of them. This local knowledge must be treated equally with scientific knowledge if we aspire to truly have effective and efficient management.

This review of co-management literature discussed the combination of local-level and state-level management systems, stressing that co-management is a process, rather than a tool of management. The process of co-management defines stakeholders and incorporates them, through their representation, into various levels of resource management decisions. The three forces driving co-management arrangements are a crisis, a push from the community, and the settlement of Aboriginal claims. Examples of these three forces demonstrated that: 1) crisis management is not a good platform for co-management as timelines are too short to fully consider local concerns, and 2) co-management can be difficult to implement if the structures are based on government-type institutions. Three keys to successful co-management were identified as: a strong link to and support from community and government institutions, directly or through a co-management body; effective participation of users in decision-making processes and in the design of a strategic plan; and capacity building (e.g. adequate funding, training, and the removal of cultural and linguistic barriers). Having presented information on the co-

management process, the forces that drive it, and the key ingredients for success, we can now examine co-management knowledgeably in terms of the fisheries resource.

2.5 Fisheries Co-management

Fisheries co-management has been defined in at least seven ways: 1) a mutual adaptation between the government and the local community in resource management (Acheson 1989); 2) power-sharing and responsibility-sharing through delegation of a portion of the planning process to groups of fishers (Rettig, Berkes & Pinkerton 1989); 3) sharing of management power and responsibility by the state and fishing community (Feeny, et al. 1990); 4) devolution of management responsibilities to the local level, giving importance to the participation of fishers in management and environmental monitoring activities, and government support endorsing the formation of any community organization (Lim, et al. 1995); 5) a dynamic relationship between the national government and the community sharing authority for fisheries management (Pomeroy 1991); 6) a process in which the fishers or their organization are empowered to cast important votes in determining the fisheries management scheme and the day-to-day regulation of the fishery (McGoodwin 1990); and 7) what is found at the center of the two extremes of government management and self management, including the actual division of responsibility between government and the fishers (Jentoft 1989).

Some co-management arrangements may merely involve consultation, without the sharing of decision-making power; in other cases, co-management may entail the delegation of full management authority to the local level. Even though no one definition

is set in stone, all the definitions of co-management have the same principles. They are nonconfrontational, inclusionary, and consensus-based.

Once a regime is established, the advantages of fisheries co-management versus a centralized, top-down approach include lower management and enforcement costs; improved data quality and reliability; a higher degree of acceptability and compliance with management systems; greater participation of fishers; and improved social cohesion and community development (Pomeroy & Williams 1994). This does not mean that co-management is an easy, problem-free solution for fisheries management. There are some basic obstacles associated with co-management: internal conflicts among members of a group or between groups arise which may be difficult to deal with, co-management regimes are costly to establish, the effort required to keep these structures operational is long-term, and there is a limited guarantee of success (Pomeroy & Williams 1994). Reed (1994) studied co-management through a conceptual framework for locally responsive environmental planning in a northern Ontario community. She found that co-management, in this case study, did not significantly alter the broad power structure or policy objectives of the provincial government. There was a lack of public participation, lack of general public access to information, and a lack of direct involvement by senior government. Co-management remained at a committee level with rules and timing of participation and feed back to the public that precluded broad community involvement. Much work was going to be required to devolve planning functions and to implement co-management down to the community level.

Lindblom (1959 & 1979) recommends that those who try new management methods do not give up if at first they do not succeed - "muddling through is the most

appropriate strategy for difficult management problems that have not responded to attempts to solve them by other means". Scientists and managers should not fear co-management approaches merely because they are awkward to implement, or because their future consequences are difficult to assess (McGoodwin 1990). With all it has to offer, co-management should be given due chance as most other fisheries management attempts have failed.

There are few examples of Canadian fisheries co-management, none of them long-standing and none of them particularly successful (Berkes, et al. 1996). The classic examples come from Japan or the already noted Norwegian Lofoten fishery. The prevalent maritime tradition in Japan has never included the idea that the sea is open access (Ruddle 1989). Co-management is the principle followed in Japanese coastal water fisheries codified into with their 1949 *Fisheries Law* and demonstrated by the 5,000 Fisheries Cooperative Associations scattered around its coast (Lim, et al. 1995). These Cooperatives are organized into federations and umbrella organizations at the local, regional and national level. Their peak effectiveness occurs primarily in the inshore fisheries where the cooperatives receive their power based on fishing rights.

The co-management success stories in Canada are related to aboriginal peoples and their claim agreements, not because First Nations and governments work particularly well in co-management, but because Aboriginal claim agreements provide legally defined management rights for local resource users (Berkes, et al. 1996). The literature on common property theory (acquiring the 'right' to manage) and international co-management experience (Norway and Japan) suggest that successful co-management needs to have a legal basis. If fishery co-management is to be taken seriously, the level of

fishers' participation needs to be more than consultative; legal rights to management will have to be established (Berkes, et al. 1996).

2.6 Aboriginal Claims in Canada – Providing a legal right to participate in the management of resources

This section reviews the origins of treaties and Aboriginal claims in Canada providing background information on the process, describing what claim settlements have offered aboriginal people and the resource co-management institutions they have created. Between 1860 and 1923, sixty-six major treaties were signed in Canada. From 1923 to 1973, no new treaties were signed largely because legislation passed in the 1920s prohibited First Nations from discussing or spending money on Aboriginal claims (Indian and Northern Affairs Canada [INAC] 1996c). Since 1973, the Federal government has operated under a policy that acknowledges Aboriginal interests in certain land areas claimed (based on traditional use and occupancy) and that allows for the negotiation of settlements, comprehensive claims, where these interests can be shown not to have been previously resolved (Department of Indian Affairs and Northern Development [DIAND] 1981). If a First Nation feels that the terms of its existing treaty have not been fully discharged, under the Indian Act, they can make a specific claim. The thrust of the 1973 government policy was to exchange undefined Aboriginal land rights for concrete rights and benefits. Settlement legislation would guarantee these rights and benefits. This is more than a question of access to land and resources for aboriginal people; they want land management powers in order to ensure social and economic health, resource conservation, and self-government in their communities (Berkes 1994).

From 1973-1985, the Federal government and aboriginal groups spent more than $100 million on negotiations that produced only three agreements, while twenty-one claims were under or awaited negotiation. Many comprehensive claims remained unresolved because the 1973 federal policy was unworkable, in desperate need of a new development framework (Coolican 1985). In 1985, a Task Force was set up to review the claim policy and develop a realistic and reasonable new federal policy. One of the major problems was the exclusion of political development issues from the negotiations. The Federal government revised its comprehensive claims policy in December 1986. The policy now contains provisions for new approaches to the cession and surrender of title, self-government, wildlife and environmental management, the inclusion of offshore areas in negotiations, resource revenue-sharing and negotiating procedures.

Comprehensive claim agreements are the products of negotiation between aboriginal peoples and the Government of Canada (and in certain instances, a province). In exchange for financial compensation, fee simple title to certain tracts of land (with ownership of subsurface rights for a small portion of the land) and participation in wildlife and environmental management boards, the aboriginal people extinguish their Aboriginal title to the land covered by the claim (though not other Aboriginal rights, Cameron & White 1995:27). The process involves several milestones. After the claim has been accepted, the Federal government and the aboriginal group enter into, and conclude, preliminary negotiations; a framework agreement; an agreement-in-principle; a final agreement, and an accompanying implementation plan - to ensure common understanding of all aspects. For each agreement, there must be formal approval by the First Nation, provincial or territorial government and the federal government. Then final settlement

legislation must be agreed upon by Parliament. This can be a long process but a necessary one because, once confirmed, the claims achieve constitutional status under section 35 of the Constitution Act (1982), and may not be altered without the consent of the claimant group (Cameron & White 1995; Shannon 1993).

The money paid by Ottawa in annual installments over a decade or more, goes to designated aboriginal organizations for economic development projects, social programs, and the like and should not be seen as a buy out of aboriginal lands or as compensation for past damage (Bayly 1988). The comprehensive claim policy encourages aboriginal communities not only to become economically self-sufficient but also to establish political and social institutions that will allow them to become self-governing. A framework that promotes Aboriginal rights and encourages economic development must evolve together because political power is meaningless without the backing of financial resources (Coolican 1985:iii). To break their dependency, aboriginal people need not only land but the power to manage what happens on it (e.g. not just the right to fish but a say in management of fish stocks).

Comprehensive claims cover a broad range of land and resource matters, including power sharing and co-operation concerning fish and wildlife harvesting, the management of parks and conservation area, environmental screening and review procedures, land use planning and water. The legal protection of Aboriginal rights is important because the traditional economy based on land and animals is still at the core of the social and economic health of many of their communities (Berkes 1994; Feit 1988a; Usher 1982). Some aboriginal people disagree with comprehensive claim procedures/treaty negotiations; they see it as giving up rights and giving in. The majority

of others believe that it will make their rights stronger as they will be written down for all to see and their traditional life is being recognized and respected by the people of Canada within these claims (Berkes 1989b).

The settlement of contemporary Aboriginal claims does not merely establish preferential or exclusive harvesting rights, but as a rule puts in place a new resource management regime, in which aboriginal people form an actively participating party (Notzke 1994). The *James Bay and Northern Quebec Agreement* (1975), subsequent comprehensive claim agreements in the northern territories, and the *Sparrow* decision of 1990 (details in chapter three) have forced both First Nations and government agencies to consider alternative arrangements to share power and responsibility for resource use - local and state systems can no longer operate in isolation (RCAP 1996).

2.6.1 Aboriginal Claims in British Columbia

Treaty making was never undertaken in British Columbia on a large scale. In the 1850s, James Douglas, Governor of the early colony, entered into fourteen agreements with Indian tribes on Vancouver Island. For surrender of their lands, money payments were made along with promises that village sites and enclosed fields would be surveyed and kept for use of the signatory tribes whose people would be at "liberty to hunt over the unoccupied lands and to carry on our fisheries as formerly" (DFO 1995a:5). The only other treaty area in British Columbia is a part of the province lying east of the Rocky Mountain divide. This falls within the boundary of Treaty No.8, one of the treaties signed by the Government of Canada after Confederation. The rest of the province is devoid of treaties. Instead, a policy of creating 'reserve' land for aboriginal people (i.e. village sites,

agricultural land, fishing sites) was pursued by James Douglas. These reserves "established a direction in white-native relations in this Province which is distinct from early government policy in the rest of Canada" (M.H. Smith 1995:76). In total, 1,634 reserves have been created in B.C. and although they are many in number, they are small in comparison to other provinces.

Neither the Federal government nor First Nations considered the establishment of reserves to be a substitute for negotiating the question of aboriginal title (Cassidy & Dale 1988; M.H. Smith 1995). Obviously, the province did. B.C. had a longstanding resistance to being drawn into claim negotiations. This was made quite clear in 1978 when Premier Bennett stated:

> "The provincial government does not recognize the existence of an unextinguished aboriginal title to lands in the province, nor does it recognize the claims relating to aboriginal title which give rise to other interests in lands based on the traditional use and occupancy of the land. The position of this province is that if any aboriginal title or interest may once have existed, that title or interest was extinguished prior to the union of British Columbia with Canada in 1871" (M.H. Smith 1995:82).

B.C. First Nations continued to lobby to enter into claim negotiations with the Federal government. The Nisga'a began their formal claim for the Nass Valley in 1913 but it was not until 1976, after the 1973 Supreme Court of Canada's decision in the *Calder* case, that the Federal government opened talks with this First Nation.

In the *Calder* case, the Nisga'a plaintiffs sued the Attorney General of British Columbia for a declaration that the Aboriginal title to their ancient tribal territory had never been lawfully extinguished. Although dismissed, the case held that Aboriginal title was part of the common law of Canada and that its existence did not depend upon treaty, executive order, or legislative enactment. It was important because the court was asked to

find whether or not Aboriginal title had been extinguished during the colonial period (prior to the union of B.C. and Canada in 1871; DFO 1995a).

The formation of the Nisga'a Tribal Council in 1955 signaled the appearance of several new broadly-based tribal groups concerned with a wide range of issues (e.g. land claims and special status of aboriginal people). These tribal councils helped to bring status and non-status aboriginal people together, emphasizing more traditional tribal groupings rather than the distinctions maintained by government regulation (Cassidy & Dale 1988). Band Councils were also becoming active at this time as administrators of the day-to-day life on the reserves. Funding for Band Councils comes from Indian and Northern Affairs Canada.

The *Delgam Uukw* case is the leading case on the issue of Aboriginal land rights in British Columbia. It concerns the Gitxsan-Wet'suwet'en land and governance claim. In 1984 the claimants (35 Gitxsan & 13 Wet'suwet'en hereditary chiefs) asserted ownership of a land area of 57,200 square kilometres comprising most of the Skeena and Bulkley river systems, and jurisdiction or self-government over both the claimed land and the aboriginal communities of these two groups. The trial lasted three years with the claims rejected by the trial judge in 1991. Colonial legislation was taken to have extinguished Aboriginal rights as they existed in the colony at the date of sovereignty except for Indian reserves. The trial judgment was appealed to the British Columbia Court of Appeal which, on June 25, 1993, held that there was no blanket extinguishment of Aboriginal rights, reversing the trial court decision. The court held that these unextinguished rights are not all-encompassing rights of ownership and that there are no rights to sovereignty or jurisdiction. The emerging theme of the judgment was clear, negotiated resolutions of

conflicting-use claims are preferable to resolutions under the adversarial process of litigation (DFO 1995a:37)

In 1990, after a century of denial, the Government of British Columbia decided to acknowledge the validity of comprehensive Aboriginal claims in the province (Notzke 1994). The province agreed to assist the Government of Canada in its responsibilities to negotiate and settle outstanding claims in the province trying to remain at arms length in the process. By March 1991, the province was signing the Nisga'a framework agreement as a full partner.

After this historic step, the B.C. Treaty Commission was established to manage the treaty-making process. The Commission is a tripartite organization composed of members appointed by the First Nations, the Provincial and the Federal governments. Its mandate is to receive statements of the intent to negotiate from First Nations; to fund First Nations to enable them to take part in negotiations; to assess the readiness of various parties to commence negotiations; to encourage and assist the parties to establish a timely negotiation process; to assist in the provision of dispute resolution services; and to submit an annual report on the progress of negotiations (Cassidy 1994:11).

The creation of the Treaty Commission marks the beginning of a new relationship which recognizes and respects First Nations as self-determining and distinct nations. Treaty making must move from a position which pushes for an end to the 'Aboriginal issue' to a process that establishes a new more positive relationship between particular aboriginal peoples and the Crown (Cassidy 1994). Unfortunately, this new relationship maintained the surrender and extinguishment of Aboriginal rights as the B.C.

government's approach does not recognize Aboriginal title and insists on a land selection model as the only solution to treaty negotiation (Gitxsan Treaty Office 1997).

As of March 1996, forty-eight First Nation groups, consisting of 129 bands which represent over seventy percent of B.C. First Nations,were involved in the British Columbia Treaty Commission process. Nineteen First Nations were engaged in framework negotiations and framework agreements had been signed with eight First Nations. The Nisga'a First Nation was the only group that had completed its agreement-in-principle. It is worth noting that the Nisga'a agreement is part of the old comprehensive claim system and not the new B.C. Treaty process (INAC 1996c).

In June 1997, the Supreme Court of Canada heard the appeal of the *Delgam Uukw* land title action. Seven judges addressed the bigger question of Aboriginal rights and title rather than site-specific rights. On December 11, 1997 the Supreme Court of Canada confirmed that aboriginal people still have title to their land if they have not surrendered it in treaties, and that they have the right to exclusive use and occupation of the land. This greatly strengthens the hand of First Nations in their treaty negotiations with governments in Aboriginal claims (Supreme Court of Canada 1997; Vancouver Sun 1998).

The *Delgam Uukw* decision has deeply shaken the B.C. treaty process in which fifty-one First Nations are currently involved. All parties need to arrive at some common ground on the decision's meaning if treaties in British Columbia are to stay on track (Vancouver Sun 1998). The B.C. government will have to adjust and adapt the treaty process to become consistent with the meaning of the decision. Their "Action Plan" entails two phases. The first deals with the development of new consultation practices and policies which may be required as a result of *Delgam Uukw*, including consideration of

the implications of the Court's statements surrounding compensation. The approach includes: 1) analysis by the Ministry of Attorney General regarding the *Delgam Uukw* decision, 2) the appointment of a cross-government committee to develop a report to Cabinet, and 3) the development of a broad-based communications strategy with respect to government's response to *Delgam Uukw* (Government of B.C. 1998).

Phase two identifies changes required to the treaty negotiation process following the *Delgam Uukw* decision. The approach here includes: 1) analysis by the Ministry of Attorney General regarding the *Delgam Uukw* decision, 2) the preparation of a report to Cabinet on the implications of the *Delgam Uukw* decision, 3) discussions with the Federal government, 4) negotiations to change the treaty process, including interim measures, with the Federal government and the First Nations Summit, and 5) the development of a tripartite strategy for implementation of the recommended changes to the treaty negotiation process (with the assistance of the B.C. Treaty Commission; Government of B.C. 1998).

The *Delgam Uukw* decision has legally guaranteed the Aboriginal right to manage resources with government and specifically uses the term co-management (Duiven, Per. Comm.). Before this decision, aboriginal people had to depend on signed claim agreements to gain legal recognition to participate in the management of resources in their traditional territories. Let us now examine how claim agreements ensured meaningful participation for aboriginal people in the management of resources.

2.7 Claim-based Co-management

Only twenty years ago, Canadian governments considered their authority in respect of lands and resources unlimited, except by signed Indian treaties, and then only in the most minimal way (RCAP 1996). Since 1975, governments at all levels have been forced to deal with Aboriginal claims and the mitigation of adverse effects of resource development. Through northern claims, governments and aboriginal entities have entered into formal agreements specifying their respective rights, powers and obligations with reference to the management and allocation of resources (RCAP 1996:666).

This relationship between the Federal government and northern aboriginal people differs conceptually and fundamentally from the relationship that this level of government has with other land-owners or with aboriginal peoples with whom treaties have been signed. Through comprehensive claim agreements, most of the land traditionally used and occupied by the aboriginal claimant group are formally identified as a settlement region, area, or territory. Within this territory, title to specific parcels of land is confirmed and the group has the right to share equally in the management of resources situated not only within its own designated lands and waters but over the lands and waters throughout the entire settlement area (MacLachlan 1994:21). This is a significant departure from the government's traditional approach to resource management practices elsewhere in Canada. While governments retain ultimate jurisdiction over the land and resources, co-management regimes have been included in all the claim agreements. Regulations and management strategies and all manner of decisions now must be made with aboriginal peoples as equal partners and with the understanding that

their right to harvest fish and wildlife within their settlement region is protected by the Canadian constitution (MacLachlan 1994; Haugh 1994).

Recent claim-based co-management agreements generally adopt an ecosystem approach to land and resource management, whatever the geographic size of their mandate and have multiple boards for different mandates. Co-management regimes created through claims have the certainty and staying power that ad hoc and crisis-based regimes lack but this approach is not perfect. Some single species, activity, and designated area agreements offer more appropriate models of land and resource management. For example, the Beverly-Kaminuriak agreement mentioned earlier in this chapter has come much closer to true co-jurisdiction than existing comprehensive claims agreements (RCAP 1996).

The basic model to manage renewable resources under these agreements consists of a single management board or committee for the entire settlement region and a number of local authorities. The regional board is made up of an equal number of aboriginal and government representatives whose responsibility is to oversee and co-ordinate research, assess needs, and develop and enforce an allocation regime. The role of regional boards established by co-management regimes under the agreements range from advisory only to the prime instrument of government for that resource in the settlement region (MacLachlan 1994). Local authorities are usually made up of harvesters who gather information and carry out the board's management plan within their own community. This thesis is specifically concerned with the fisheries sections of these agreements, the institutions that have been created, policies developed, and practices adopted. In many instances, the fisheries resource is included and/or combined with wildlife resources in

comprehensive claims. Every effort will be made to distinguish between the two and to concentrate analysis of the agreements on fisheries.

One fundamental issue relates to the fact that claim-based co-management agreements are two-party, involving aboriginal parties and government parties. However, many of the Pacific coast fishery management cases involve more than two groups of players and will require a multi-stakeholder approach. There is a great need to include the stakeholders that are left out of this co-management mechanism (e.g. the non-aboriginal residents, sport fishing groups, and naturalists or conservation groups). Multi-party co-management arrangements (e.g. Skeena Watershed Committee) can offer insights on how to deal with this issue.

Overall, co-management arrangements established within comprehensive claim settlements in the Territories appear to be working. Claim agreements have clarified who has rights and access to land and resources surrounding aboriginal communities and have given First Nations a legally defined place at the negotiating table to develop, implement, and institutionalize co-management. The political and legal circumstances of the territories have allowed co-management to get its successful start. In the provinces, the prairies in particular, these circumstances do not exist as rights to off-reserve land and resources are not clearly defined (Campbell 1996; Wagner 1991). As of December 11, 1997 the Delgam Uukw decision offers clearly defined rights in British Columbia.

Cassidy and Dale (1988) studied the implications of comprehensive claims settlements for the natural resources in B.C. They used three scenarios to look beyond the impasse of claim negotiations at how resolution of the issues might affect the economic, political and environmental dimensions of natural resource-centered activities. The

scenarios were: partners in development - where the role of government is reduced and commercial interaction among parties increased; allies and adversaries - where bureaucracies and intergovernmental coordinating committees would regulate, mediate and coordinate through co-management approaches; and homeland and hinterland - territory in which aboriginal people can retain their view of the land with no outside interference with the rest of the land remaining under provincial control. Regardless of the scenario, their study resulted in identification of three implications of comprehensive claims. The first implication is that claims could be build on the cooperative efforts already in place with B.C. First Nations and government and/or industry. The second implication is that a mixture of strategies should be expected depending on the resource, region in question, and First Nations' goals. The third implication is that the character of resource development and management would alter significantly, depending on the region and resource.

Campbell (1996) points out that the co-management agreements that have been offered within a provincial context do not offer the same set of circumstances. She examined various agreements in the provinces between both First Nations and government and First Nations and industry, that have been described as co-management. She found that even though 'equal' partnerships were implied, they differed substantially from the co-management practiced in settled claims. The provincial agreements examined did not include either the transfer of substantial decision-making power or a share of royalties for resources that are harvested. Formalized claims were preferred because they deal with treaty rights and self-government, fundamental questions regarding the relationship of First Nations and the rest of Canada.

2.8 Summary

This chapter has summarized relevant information regarding common property resource management and fisheries management, and co-management and fisheries co-management in order to build an argument supporting the process of fisheries co-management. Aboriginal claims and claim-based co-management have been included in the literature review to focus our attention on the struggle aboriginal people have had to get their rights recognized and their subsequent involvement in co-management regimes as a result of claim settlements. Common property is property held in common by a particular group (e.g. First Nation) and does not imply the inevitability of resource depletion. Common property represents a well-defined set of institutional arrangements concerning who may use the resource and the rules governing its development (Berkes 1986). Fisheries are treated as crown property with the government assuming management responsibilities. The government uses scientific models to manipulate biological data and estimate allowable harvest levels, ignoring the human factor. Their regulations are then placed on fishers who tend to disregard and/or challenge the state's management system. Co-management has been introduced as a way to involve fishers in management activities to resolve disputes and provide a fair, effective and efficient management framework. In Canada, co-management success stories are related to Aboriginal claims as they provide a legal basis for local resource users' management rights.

In the next chapter, the AFS is examined extensively through questions such as: How is the AFS co-management? What can be learned by its successes and failures? What does the AFS offer as an interim fisheries agreement? In later chapters, both claim

agreements and aboriginal fisheries co-management agreements in B.C. will be investigated through their fisheries management functions and in relation to criteria developed by McDaniels, Healey & Paisley.

3

Background, Creation, and Implementation of the Aboriginal Fisheries Strategy

The Aboriginal Fisheries Strategy (AFS) is outlined in four sections: 1) aboriginal involvement in fisheries management before the AFS; 2) the creation of the AFS; 3) the AFS as a form of co-management; and 4) the implementation of the AFS. The first years of this innovative fisheries management program are examined specifying its successes in monitoring and enforcement programs, selective fishing, and reduced First Nation protests. There are at least six areas of concern that require further attention in the AFS. They range from a lack of support for co-management endeavors, to the continued controversy over special aboriginal commercial fisheries. Lastly, the program's function as an interim fisheries co-management agreement is explored in relation to potential treaty settlements in British Columbia.

3.1 Before the Aboriginal Fisheries Strategy (AFS)

Aboriginal participation in both commercial and food fisheries is a high profile issue in British Columbia. With 72,000 status Indians in 196 Bands on 1,662 reserves on or adjacent to important salmon rivers, attention has been focused on their rights to fish and on the terms and conditions under which such fishing may be conducted (Parsons 1993a). Over the years (1920-1970), aboriginal involvement in the commercial fishery declined drastically. The decline resulted from the 1888 *Federal Fisheries Act* excluding

aboriginal people from the commercial fishery. Glavin (1996), describes the story of a Federal Fisheries Officer who was sent up the Skeena river to put an end to traditional fisheries and to force aboriginal people down to the canneries to work. "The canners estimated that the number of canneries at the Skeena mouth would double if the upriver fisheries were shut down and the prohibition against aboriginal people selling their fish was enforced" (Glavin 1996:28). Under pressure from the canneries traditional aboriginal methods, a system of traps and weirs, were outlawed by DFO. This created serious conflict in the upper Skeena involving arrests, riots, and fistfights in Babine, Gitxsan, and Wet'suwet'en communities (Glavin 1996). The conflict did not just occur on the Skeena. Many other First Nations on the Fraser and in coastal areas were engaged in "fish wars" with DFO (Duiven, Per. Comm.).

The displacement from the commercial fisheries generated serious economic and social distress in aboriginal communities as many were relatively immobile and did not offer alternative employment (Parsons 1993b). A number of government programs were created to bring displaced aboriginal fishers back into the industry with limited success (e.g. Indian Fishermen's Assistance Program and the acquisition of the B.C. Packers northern fleet by the Northern Native Fishing Corporation). Much of the debate concerning aboriginal people and the fishery has centred on the possible legalization of sale within the food fishery resulting in confrontation and violence as fishery officers try to enforce regulations which aboriginal people see as infringing on their Aboriginal or treaty rights (Parsons 1993a).

The U.S. District Court's *Boldt* decision of 1974 is significant because it re-established Aboriginal fishing rights in Washington State, and created a long-term

process of resolving allocation conflicts through a Fisheries Advisory Board. Judge Boldt affirmed the treaty right for off-reservation fishing, allowing aboriginal people to be subject to only the law of conservation. He also specified that the tribes were entitled to "fifty percent of the harvestable fish destined for their usual and accustomed fishing places" (Cohen 1989:41). This established guidelines for a new management system, moving the tribes from users to joint managers. The *Boldt* decision set a precedent for management of the salmon resource not only in the U.S. Pacific Northwest but also in British Columbia (Cohen 1989; Dale 1989). With respect to Aboriginal claims, Marchak (1987b) pointed out that it is within the Canadian Federal government's jurisdiction to fundamentally alter the status of stakeholders in the fishery as the U.S. District Court of Western Washington did in the *Boldt* case.

Various court cases within Canada have contributed to the evolving shape and meaning of Aboriginal presence on the land and access to the fishery resource. In the 1973 *Calder* case, involving the Nisga'a First Nation claim to the Nass Valley, the Supreme Court of Canada decided that "Aboriginal title" was part of the common law of Canada and that its existence did not depend on treaty, executive order, or legislative enactment. It did not say whether this right amounted to an interest in land but it did determine that aboriginal people have a right to live on their lands as their forefathers have lived and that this right has never been lawfully extinguished (DFO 1995a). Other court cases such as *Baker Lake* (1980) confirmed Aboriginal title and set out requirements of proof. *Guerin* (1984) stated that the Crown's fiduciary obligations to its Aboriginal subjects are legal and not merely political. *Delgam Uukw* (began in 1984) has become the leading B.C. case enforcing Aboriginal rights (DFO 1995a; Parsons 1993a).

In 1982, Aboriginal title received constitutional affirmation. This affirmation of Aboriginal and treaty rights did not create rights, but "requires the Federal government to ensure that legislators pay special attention to the impact of government on the interests of aboriginal people" (DFO 1995a:8). Within the fisheries sector, a push came from the Pearse Commission (1982) which recommended a much greater role for aboriginal people in the Pacific fisheries because of their historical use of and strong cultural attachment to fish and the location of their communities. Pearse (1982) concluded that First Nations wishing to participate more actively in fisheries management and enhancement should have the opportunity to do so through multi-year Indian Fishery Agreements with the Department of Fisheries and Oceans. Herein, the foundation for the AFS was laid with the concept of communal licences, permits issued by the First Nations, and encouragement for First Nations to undertake management and enhancement responsibilities. This Royal Commission was the first to realize that a major cooperative effort is required both by First Nations and Federal government to make fisheries management work. Unfortunately, Pearse's vision of a national policy to include First Nations in fisheries management duties and responsibilities was put on hold.

3.2 Creation of the AFS

The first court case that dealt directly with the Aboriginal right to fish was *Sparrow v. the Queen* (1986), where the accused claimed the right to fish for food on the First Nation's traditional fishing grounds with a drift net longer than the First Nation's food fish permit allowed. The B.C. Court of Appeal accepted the contention that the accused was exercising an Aboriginal right to fish for food but did not agree that section

35(1) protected him from the net restriction. Both the Crown and Sparrow, for different reasons, were appealed to the Supreme Court of Canada (Kulchyski 1994).

On May 31, 1990 the Supreme Court of Canada ruled that aboriginal communities have a right, under Section 35 of the Constitution of Canada, to fish for food, social, and ceremonial purposes. The Court rejected the argument that the *Fisheries Act* and its detailed regulations had demonstrated a sufficiently "clear and plain" intention to extinguish the Aboriginal right to fish (Bartlett 1990; Usher 1991). Using a flexible interpretation of 35(1), the net restriction was found to be invalid. Over the years, DFO had been laying numerous charges against Aboriginal people for violating fishery regulations. Most cases had either unsuccessful convictions or were held up in the courts for years. Either way, enforcement tactics on the rivers were becoming futile and DFO could not afford to continue wasting time and money enforcing the rivers this way if the charges were not resulting in convictions.

As a result of the *Sparrow* decision, the Department of Fisheries and Oceans: 1) acquired a constitutional responsibility to ensure that First Nations are allowed to exercise first claim on the resource, after conservation needs are met but before the claims of other users; and 2) had to redefine their relationship with aboriginal people on fishing and fisheries management issues (Notzke 1995; Parsons 1993a; Usher 1991). A fundamental change was required in the way fisheries were managed with respect to aboriginal people.

3.3 How the AFS is Co-management

The desirability and constitutional responsibility of involving First Nations in fisheries management had to be recognized by the Federal government, but what form did

it take? The AFS is guided by the principle that aboriginal fishing can be managed most effectively through co-management between the aboriginal groups and the Department of Fisheries and Oceans. The Federal government envisions co-management requiring agreement on management measures that lead to the development of workable arrangements which may later be included in treaties and self-government agreements (DFO 1997). The Minister of Fisheries and Oceans retains ultimate authority for conservation of all fisheries. Increased management authority would proceed as comprehensive claim and self-government initiatives are realized.

Participants of the AFS are working on achieving the three key ingredients outlined in Chapter Two. They are fostering strong links between communities and government institutions, developing effective participation mechanisms for users in the decision-making process, and conducting training programs for capacity building. The main drawback of the AFS is that it is not driven by consensus-based decisions. For this reason and others outlined later in this chapter, the Federal government's approach to the AFS still needs to evolve into a system that avoids the domination of the state approach over local approaches to fisheries management.

3.4 Implementation of the AFS

The Aboriginal Fisheries Strategy (AFS) was announced on June 29, 1992 as a long term national strategy to enhance aboriginal participation in fisheries and increase economic opportunities through negotiated agreements. Framework agreements and working agreements are negotiated with individual First Nations, with input from

watershed groups and provincial associations. The fisheries agreements cover a spectrum of fisheries management activities, including:

- fixed, numerical harvest levels;
- enhanced self-management of aboriginal fishing;
- demonstration projects to test the sale of fish caught by aboriginal people;
- fish habitat improvement and fishery enhancement;
- research; and
- fisheries-related economic development and training.

(DFO 1992; Parsons 1993a)

An important element of the strategy was the licence retirement program. In order to facilitate reallocation of commercial licences to aboriginal groups, money was made available to buy licences from commercial fishers on a voluntary basis and at a fair market price. The second phase of this program works with aboriginal groups to design long-term economic opportunities for their communities. As noted in the list above, the AFS addressed the controversial question of sale of fish by aboriginal people. Demonstration projects were carried out in 1992 by three First Nations on the lower Fraser (Sto:lo, Musqueam, and Tsawwassen), to test measures for the commercial sale of harvested fish under their communal licences. The results of these sales will be discussed later in this chapter.

The AFS and its approach were designed to move away from costly, disruptive litigation to mutually beneficial agreements through negotiation. The funding secured over the initial seven years (1992-1999) was $140 million (70% to be spent in B.C.), with a total of $7 million dollars being made available for the retirement of commercial licences, primarily in the Pacific salmon fishery. In 1994, a new Pacific licence retirement

program began with additional funding for $35 million available over six years. In 1992, more than eighty agreements involving fifty-seven Bands or Tribal groupings were concluded in British Columbia. This time Pearse's vision was going "full steam ahead" with the Federal government stating that the rationalization of the fishery has great economic significance beyond aboriginal communities. They recognized that many other Canadian communities also have relied on this resource for economic opportunity over many generations, and tried to assure Canadians that the AFS is designed to provide a stable, predictable, and profitable fishery for the benefit of all Canadians (DFO 1992).

3.4.1 Non-aboriginal Stakeholders

While developing a much closer and more complex relationship with First Nations, DFO had to ensure that other users are closely consulted and that their views play an important role in decision making. To this end, DFO provides funding for the B.C. Fisheries Commission, an umbrella group of B.C. commercial and recreational fishing organizations, to ensure that the commercial and recreational sectors are informed and consulted and their interests protected. These non-aboriginal stakeholders are being asked to advise DFO on ways to develop and implement the Aboriginal Fisheries Strategy (e.g. pilot sales and licence retirement). Regional boards have also been set up to advise the Federal government on local AFS program implementation (DFO 1995a).

To some commercial and recreational users, a few of the agreements are truly frightening. Their concerns include: the guardian program - aboriginal self-enforcement and a believed increase in poaching; that the money spent (millions of dollars) is not going directly into fisheries programs; pilot commercial sales of fish caught under the

communal licence; and reduced DFO officers and technicians in the field. They do not see how increased access of First Nations to management activities and the resource itself will improve the present situation. They feel that the status quo must prevail and DFO needs to continue to exercise its constitutional authority over fisheries (M.H. Smith 1995). Yet others perceive that they too will benefit in the long run if management is more accountable, effective, and participatory (Healey 1993). The AFS challenges DFO managers as well as stakeholders (aboriginal, recreational and commercial) to co-operate much more closely in harvesting, maintaining, and conserving the resource.

Support for the AFS varies for non-users such as environmental groups and the residents of British Columbia. Many are satisfied that First Nations are becoming involved with the management of their traditional food supply, while others think that the fisheries are too intensely managed already.

3.5 The AFS in its First Years, 1992-1995: Successes and Failures

The first year, 1992, was an incredibly difficult one for the AFS and fisheries management in general on the Pacific Coast. Internationally, the U.S. and Canada could not agree on a joint harvest plan or on their fisheries management models and there were 500,000 sockeye unaccounted for in Fraser River spawning areas. This made an unstable situation even tenser and more difficult (McDaniels, et al. 1994; Oulton 1996).

The AFS was introduced "in-season" creating serious enforcement problems on the Fraser River. The Aboriginal Guardian Program had not finished its training and was encountering problems not only in the way the program had been structured - the narrow scope of responsibilities with little "real" enforcement power - but also in coordination of

enforcement duties and responsibilities with DFO. Pilot sales sparked major controversy as commercial fishers are opposed to special aboriginal commercial fisheries. Pearce & Larkin (1992) stated that the pilot sales experiment invited abuse, but all around intensive fishing was the main factor leading to the low number of spawners in the Fraser River. The blame was not placed on the AFS completely, but changes did need to be made.

The 1993 season was an improvement on 1992 due mostly to record size salmon runs. DFO had signed more agreements with First Nations, tensions were lessened as each user received their portion of fish and escapement numbers were reached. Enforcement problems were not yet solved but progress was being made with the signing of the Fraser River Watershed Agreement. The 1994 season saw many of the same problems as in 1992.

In 1995, most Aboriginal fishery agreements were comprehensive, multi-year and signed before the season began, including enforcement and monitoring provisions. One hundred and twenty AFS agreements were signed in 1995, the sixty-one in B.C. representing agreements with 80% of B.C. First Nations (DFO 1997). On the international front, there were still problems between the U.S. and Canada.

The AFS has offered more stability to all fisheries, demonstrated through monitoring and enforcement programs within aboriginal fisheries, selective fishing, and a reduction in First Nation protests. The success of co-management is what has been accomplished within the agreements. AFS agreements have achieved the following fisheries management goals:

- numerical harvest levels have been established for food, social and ceremonial purposes harvested under communal licences,

- fisheries related economic development and training has occurred, stressing long-term benefits for the resource and the aboriginal community,
- establishment of the Guardian program to increase self-management of aboriginal fishing and cooperative management processes, and
- fish habitat improvement and resource enhancement which has led to overall improvements in resource protection and abundance (DFO 1997).

The AFS has built a comfort level where people within the Federal government and aboriginal communities can promote, deal with, and understand the issues that are involved in fisheries management (Zealand, Per. Comm.). "The attitude of government managers regarding the ability of groups of fishermen [sic] (and hunters) to manage themselves will affect the viability of any co-management arrangements which may be set-up" (Berkes 1989:198). The AFS has provided First Nations with the opportunity to achieve effective organization and to demonstrate their commitment to the resource (Zealand, Per. Comm.). Fisheries activities proposed by aboriginal groups have been sound, from both a scientific and an economic perspective, and are contributing to improved management of the resource. It has been a two-way process for both aboriginal fishers and government agencies in building mutual trust. The AFS has helped improve relations between aboriginal communities and others interested in conservation of natural resources, delivered important economic benefits to often remote aboriginal communities, and stimulated capacity-building to continue the improvement of management efforts in aboriginal communities (DFO 1997).

3.6 The Lessons Learned and Challenges to Face

The AFS represents a fundamental reform of the Federal government's approach to the aboriginal fisheries issue but it is still a government institution run by government rules. DFO has made great strides in building a productive relationship with aboriginal peoples but the process is far from complete. There were six main concerns identified through the Department of Fisheries and Ocean's AFS review: 1) progress on building a relationship with aboriginal peoples, 2) support for cooperative management, 3) support for the Aboriginal Guardian Program, 4) continued controversy over special aboriginal commercial fisheries, 5) concern over lack of consultation on policy guiding AFS negotiations, and 6) the need for increasing integration of the management of fisheries (DFO 1997).

Aboriginal people still do not feel that they are equal partners in the relationship. They are demanding continued progress towards objectives for co-management (e.g. use of other forms of management than the communal licence, increased involvement in other fisheries) and commercial fisheries development. They feel there is a lack of DFO support for management training, field training, and communication of technical advice. To change this situation, DFO is looking to facilitate better sharing of decision-making and equity in the responsibilities of those involved. Greater involvement of all areas of DFO with AFS activities, training partnerships with other agencies, mechanisms to include traditional knowledge, and increased accountability for results by both parties are all future directions DFO is working on (DFO 1997).

On one hand, there is widespread recognition within DFO of the value aboriginal people bring to fisheries management. On the other hand, the increased complexity of

management under different agreements, the belief that co-management undermines the authority of the Minister, and concerns over the quality of data, have made it impossible to resolve conflicts between user groups (M.H. Smith 1995). DFO is attempting to alter negative perceptions of co-management by ensuring better communication and more rigorous assessment of results, and improving internal coordination and recognition of the value of the AFS (DFO 1997).

Aboriginal Fisheries Guardians are providing conservation and monitoring of the resource along with DFO Enforcement Officers. This program has encountered problems with inconsistent selection standards, personnel turnover related to the seasonal nature of the work, Guardians running into problems working within their own communities, and an inability to meet the training demand required to adequately monitor fisheries (DFO 1997; M.H. Smith 1995). The lack of authority designated to these officers is the biggest concern for aboriginal groups. The program is in the process of being revised with increased authority and training support from DFO.

The problems associated with special aboriginal commercial fisheries have been previously mentioned in this chapter. DFO hopes to reduce conflict in this area by involving other commercial fishing interests in discussions aimed at meeting the valid interests of aboriginal groups for economic benefits through fisheries. Future discussions will include the topics of flexible licencing, pilot sales based on a share of the total allowable catch and not a fixed number, changes in the way pilot sales are managed, and pilot sales paying for their own management costs (DFO 1997).

There is a concern by all parties that decisions on the policy guiding the negotiation of AFS agreements have been taken without consultation and adequate

consideration of their interests. They feel there is a need for more national and regional organizations to coordinate and support aboriginal participation in policy development; that more consultation should happen through existing boards; and that a regional participatory consultative process involving stakeholders to enhance the quality of the debate and to increase communication should be encouraged (DFO 1997).

Each fishery, be it commercial, recreational or aboriginal, has an effect on the conduct of the other fisheries. The simultaneous management of these fisheries can strain the capability of DFO. The suggestion follows that there needs to be improved consultation and integration within DFO on their fishery sector management plans. The tools could include multi-user consensus processes as a vehicle for developing policy (Skeena Watershed process) and/or coordination of watershed-based aboriginal groups (Fraser Watershed Agreement).

Dealing with these six concerns is quite a challenge. In addition to these concerns, new court decisions that have been passed that will present challenges and push the further development of the AFS. The *Sparrow* decision defined the food fishing component of Aboriginal rights but the cases involving *Van der Peet/Gladstone/NTC Smokehouse* in 1993 focused on the Aboriginal right to trade, barter or sell fish. In 1996, the Supreme Court of Canada (SCC) set out "the test" in *Van der Peet/Gladstone/NTC Smokehouse*. It was decided that if First Nations can prove that trafficking of fish was a way of life before contact, they can retain the right to sell; if they cannot prove its existence before contact, they cannot sell fish (Duiven, Per. Comm.). This decision affects commercial fishing regulations in a major way. Once this "test" has been met by a

First Nation, they will be allowed to sell the fish they have caught under their communal licence.

On December 11, 1997 the SSC made a decision in the *Degalm Uukw* case that fundamentally changes the way resource management is carried out. It defines Aboriginal interest beyond a "use right" as defined in the past. It states that it is a general interest, proprietary and deep. Regarding fisheries, the Aboriginal interest includes, but is not limited to, Aboriginal priority above all other users for food, social and ceremonial fish, a right to sale, and a right to manage (joint management is discussed in that decision; Duiven, Per. Comm.). This affirms that the Aboriginal Fisheries Strategy is headed in the right direction and makes DFO's development of this program in 1992 look visionary. Even so, it is necessary to continue efforts to improve the Aboriginal Fisheries Strategy and to use the lessons learned within treaty negotiations.

3.7 The AFS as an Interim Agreement

AFS agreements have been extended until treaty negotiations are settled but there is still open hostility to aboriginal fisheries in British Columbia, mainly from the other user groups (commercial and sport fishers). There is a widespread lack of understanding of the AFS in relation to Aboriginal and treaty fishing rights, how the negotiation of AFS agreements relates to Aboriginal and treaty rights, and how these co-management arrangements work (DFO 1997). It should be stressed that AFS agreements "provide for aboriginal participation in the management of fisheries but do not limit or define Aboriginal or treaty rights. Nor are they agreements or treaties within the meaning of Section 35 of the *Constitution Act*, 1982" (DFO 1995a:4). The AFS agreements have had

an evolving nature as treaty climates change but they still operate strictly within the *Fisheries Act*. This partnership does not detract from the Minister of Fisheries and Oceans' ultimate authority for managing and conserving the resource. To combat the lack of understanding surrounding the AFS, DFO intends to promote the development of a comprehensive communication plan and the organization of ongoing consultations with all interested parties (DFO 1997).

"Until the uncertainty surrounding Aboriginal and historic treaty fishing rights can be resolved, preferably through the modern treaty and self-government negotiating processes, the best approach is to negotiate time-limited agreements" (DFO 1997). It will take time to conclude treaty negotiations within B.C. and the fishery is an annual resource. Interim co-management agreements are extremely important as claims are extremely slow to reach negotiation, settlement, and implementation (Campbell 1996). The AFS can enable aboriginal people to benefit to some degree during this period, and to decrease or eliminate their current conflict over resources. Increased aboriginal participation in fisheries can provide economic development and employment opportunities to improve the economies of aboriginal communities. Projects funded thorough the AFS can assist First Nations in achieving a greater measure of independence, which is necessary as they will assume the cost of running their own fisheries programs once their claims have been settled. Moreover, it is in the interests of all parties, prior to concluding final agreements, to evaluate the results of short term experimental arrangements for fisheries that allow and monitor change.

AFS agreements are unique opportunities to test fisheries management arrangements and have given both the Federal government and First Nations a better

understanding of the requirements for workable co-management arrangements. At the treaty table, fisheries issues can now be knowledgeably discussed by both sides and proposals put forward. First Nations are looking at the big picture and not just their interests in the system (Zealand, Per. Comm.). This increased understanding has played a large role in the Nisga'a treaty negotiations concerning the fishery resource, but the proof will be in the implementation of the claim (Zealand, Per. Comm.). What this thesis is looking to clarify, and the Department of Fisheries and Oceans wishes to know, is how the AFS will continue to relate to the eventual settlement of Aboriginal fishing rights issues through treaty and self-government negotiations.

3.8 Summary

The Aboriginal Fisheries Strategy and its associated policies did not appear in isolation. They were a result of aboriginal people exercising their rights within their traditional territories across Canada (Duiven, Per. Comm.). Aboriginal people have been forcibly removed from commercial fisheries and heavily regulated since 1888, creating a backlash from aboriginal groups as they attempted to exercise their rights the resource (e.g. fishing without a licence). Many court cases ensued, costing large sums of money and a great deal of time. In the 1990 *Sparrow* decision, the SCC defined Aboriginal rights to fish for food, social, and ceremonial purposes and their priority claim on the resource. This put a constitutional responsibility on DFO to ensure that First Nations' are allowed to exercise their priority claim on the resource, after conservation, and required that DFO redefine its relationship with aboriginal people on fishing and fisheries management issues.

The AFS was a field produced policy with agreements between First Nations and DFO negotiated first, and the full policy developed second. For this strategy to be "workable" and accepted by the First Nations, it deliberately walked the co-management road (Duiven, Per. Comm.). Its first years were difficult with pilot aboriginal commercial sales a point of contention, a lack of understanding surrounding the AFS, and non-aboriginal user groups resisting a co-management arrangement. On a positive note, the AFS has built a basis for the Federal government and First Nations to work together, established communal harvest levels, and led to overall improvements in resource protection and abundance (DFO 1997). Lessons have been learned through both the negative and positive aspects of the Aboriginal Fisheries Strategy and adaptations are being made to improve its operation.

AFS agreements can be seen to be based on, and working toward the three key ingredients for successful co-management from chapter two. It is building a strong support link between communities and government, providing for participation of all users, and focusing on capacity building (funding and training). The AFS has influenced, and been influenced by, a range of other fisheries agreements and comprehensive claims, in the effort of many peoples to pursue fisheries co-management. To evaluate the success of seven fisheries co-management arrangements, chapter four presents an evaluative framework by McDaniels, Healey & Paisley (1994). This framework assesses the strengths and weaknesses of the cases, identifying where and how improvements can be made.

4

Methodology: Building an Evaluative Framework

Turbulent conditions are the norm in fisheries management. The complexity and uncertainty associated with its ever-changing conditions have created bewilderment, anxiety, and even suspicion between government and users, and among user groups (Gallaugher 1997). Some government institutions (e.g. the Department of Fisheries and Oceans) are being re-designed to reflect this "turbulent" reality and have increased their involvement in collaborative and partnership arrangements with legitimate stakeholders to achieve greater stability. Co-management is one means of achieving effective partnerships in fisheries management that is explicitly designed to recognize and incorporate local knowledge (Mitchell 1997).

The most critical issue facing First Nations today is their lack of control over what happens in their traditional territories (Campbell 1996). Their involvement in resource decision-making can reduce negative economic, environmental and/or social impacts on aboriginal communities. At best these impacts can be avoided and at worst, they can be mitigated. The ultimate goal for First Nations is to be involved in all three stages of planning (normative, strategic, and operational), rather than only limited involvement in the operational phase. Within fisheries management, researchers have expressed the need to explore and test innovative co-management regimes for incorporation into treaties and self-government arrangements (Campbell 1996; DFO 1995a; McDaniels, et al. 1994).

This chapter builds an evaluative framework (context, management functions, evaluative criteria) within which seven co-management systems will be analyzed and compared.

4.1 Change, Complexity, Uncertainty, andConflict in Fisheries Management

Mitchell (1997) has noted how the field of resource management has evolved from its linkages with traditional geographical investigation and resource analysis into new innovative ways to deal with environmental and resource management issues. Mitchell (1997) states that change, complexity, uncertainty and conflict are now the four fundamental themes in resource management. This truth is confirmed in the Pacific fisheries. Change is occurring in the management structure as the Federal government downsizes, devolving some duties and responsibilities to user groups, and the province becomes a larger player, with the signing of the *Canada - British Columbia Agreement on the Management of Pacific Salmon Fishery Issues*. Complexity within the fishery has increased due to the introduction of the AFS, the negotiation and settlement of Aboriginal claims, and the coastal community push for greater involvement. Uncertainty concerning environmental conditions (e.g. increasing water temperatures, habitat degradation) and stock production (e.g. decreased stock diversity, species extinctions) have always been difficult to deal with in this system. Conflict seems to be on the rise with divisions between stakeholders running deep since access and catching capacity have increased, and the risk of getting caught breaking fishing regulations has decreased (MacLeod 1997).

Co-management is the relatively new approach now being implemented in Canada to deal with the issues of change, complexity, uncertainty and conflict in fisheries

management. Co-management increases local participation, attempts to reduce conflict and create equity between parties, seeks an acceptable balance of trade-offs, recognizes system linkages, and works to reduce uncertainty. It is a practical way to manage the fishery resource in these turbulent times.

Although gaining in popularity in several different fields, co-management research has not had a long history (approximately ten years). What has resulted thus far is a proliferation of co-management agreements without corresponding research into the field, as the number of authors who have published on co-management is small. Nevertheless, co-management with its nonconfrontational, inclusionary, and consensus-based approach has been held up by academics, industry, government, and First Nations as a viable way to manage natural resources (Campbell 1996:2).

4.2 Previous Research Evaluating Co-management Regimes

The literature on international fishery co-management is relatively well developed and coherent. There is an orderly progression of case studies and concepts with the major contributors (Berkes, Jentoft, McCay, Pinkerton, Pomeroy) familiar with the related literature on property-rights, common property, state management, and community management models (Berkes, et al. 1996). Benefits (e.g. better data, legitimization of regulations) and problems (e.g. internal conflicts, control by one interest group) of co-management have been identified fairly well. Work has been conducted on the role of fishers' organizations (Jentoft 1989; Lim, et al. 1995; McCay 1980) and improving user participation (Felt 1990; Jentoft & McCay 1995; Kearney 1989).

Co-management research on First Nation participation and Aboriginal claims is characterized by a lack of synthesis, systematic analysis, and theory. By and large, many papers and reports have been merely descriptive, without an attempt to look beyond the particulars of the case at hand. The literature has confined its scope to simply conceptualizing co-management and recommending its implementation to resolve conflicts. Co-management regimes are implemented in order to achieve specific goals and objectives, such as conservation of wildlife and fisheries and a clear avenue for aboriginal participation in management decision-making (Winn 1991). An evaluative framework is required to gauge the degree to which these goals and objectives are accomplished and determine the overall effectiveness of co-management. There are no clear prescriptions in the literature regarding conditions for success and it is difficult to identify the "best practice" due to this type of regime's limited "track record" (Berkes, et al. 1996:41). The purpose of an evaluative framework is to identify and assist ineffective regimes and enhance those that are working well.

Occasionally there have been authors - "exceptions", Berkes, et al. (1996) called them - who have attempted to develop the necessary analytical tools to systematically examine aboriginal co-management regimes. Osherenko (1988a&b) examined the problems arising from dual management (state and indigenous) and explored the potential solution offered by co-management. Pinkerton (1989) used theory based on inductive predictions, to discover the most easily charted pathways. Predictions were made about which preconditions and general arrangements are more favourable for establishing successful fisheries co-management regimes. Pinkerton developed her theory by focusing on three secondary goals of co-management: community-based development,

decentralization of regulatory authority, and increase in participatory democracy. Dale (1989) examined the U.S. Pacific Northwest applying the theory of social learning to analyze the process of co-management. Berkes, et al. (1991) analyzed resource management regimes in terms of the degree of management power sharing, from no aboriginal involvement to complete self-government. They found that the evolving nature of arrangements in the Canadian North were ones that shared management responsibilities by means of co-management regimes. McDaniels, et al. (1994) applied adaptive management theory to ongoing cooperative fisheries management initiatives. Fundamental objectives and strategies were developed drawing from decision analysis practice.

In 1994, Pinkerton studied management systems in terms of their potential to deal with major biological, economic, and political problems of the B.C. salmon fishery. She concentrated on the theory and practice, at the international level, of community-based self-management, government-community co-management, and government-multiparty arrangements. Predictors were drawn from examination of various cases under these three systems. Three types of elements key to the success of locally-based regimes were identified: logistical, cost-sharing, and power-sharing arrangements.

In the context of nine great socio-political problems in fisheries management, Pinkerton & Weinstein (1995) analyzed cases for common features between co-operatively managed and sustainably-managed community-based fisheries. The common features of the managing or co-managing community were used as indicators of what are likely to be good situations for attempting these types of management (e.g. highly dependent, vulnerable, and cohesive). The common features of the management systems

across different situations were taken as good general predictors of sustainable management: mechanisms of accountability, effective management, equitable representation, and adaptiveness.

Hawkes (1996) evaluated the Gwaii Haanas Agreement, establishing a protected area in the southern Queen Charlotte Islands, in its capacity as an alternative means of resolving a deeply entrenched land dispute. She measured the agreement against sixteen criteria for ideal co-management. Seven criteria were adapted from co-management assessments of protected areas: ecological and cultural protection, shared information, clearly defined boundaries, enforcement, community economic development, flexibility and responsiveness, and conflict resolution. Nine criteria were adopted from key components of a good decision-making process based on those from the B.C. Round Table on the Environment and the Economy: incentive, stakeholder involvement, government involvement, accepted process rules, time limits, full mandate, government commitment, fallback, and loopback. This particular agreement clearly met ten and partially met three criteria indicating that it was likely to be successful.

Research on co-management has also indicated that it should not be seen as an easy, problem-free solution. There are a variety of problems associated with co-management arrangements. In a study carried out by Reed (1995), it was discovered that a northern Ontario co-management regime did not significantly alter the broad power structure or policy objectives of the provincial government. She found that there was a lack of public participation, a lack of general public access to information, and a lack of direct involvement by senior government. Co-management remained at a committee level with rules and timing of participation and feedback to the public that precluded broad

community involvement. Some other basic obstacles associated with co-management include: internal conflicts among members of a group or between groups hindering progress; the cost to establish and maintain co-management regimes; the lack of locally trained people to fill the required positions on boards; the long-term effort required to keep these structures operational; and co-management regimes' limited guarantee of success (Pomeroy & Williams 1994).

MacLeod (1989:262) asserts that "no one has yet identified a co-management regime that sprang full-blown from the furnace of brilliant intellect and then was immediately implemented to universal acclaim". Whatever co-management route is taken, progress tends to be slow and painful, in a step-by-step progression. Participants must be prepared to put in the time and effort to make co-management work, keeping in mind that the survival of the fish is what is most important and not who gets how much (Gallaugher 1997).

4.3 Methods

Co-management regimes between government agencies and indigenous users may employ varying organizational structures and processes, but the successful co-management regimes always give the indigenous user a sense of ownership in the system. As outlined in chapter two, there are three key ingredients to successful co-management regimes: 1) a strong link to and support from community and government institutions, directly or through a co-management body; 2) effective participation of users in decision-making processes and in the design and conduct of research; and 3) capacity building

(e.g. adequate funding, and the removal of cultural and linguistic barriers; Osherenko 1988a&b; NRTEE 1988).

To achieve this sense of ownership and the three key ingredients, a vision must be developed, a process created, a product generated, and implementation and monitoring ensured within the co-management regime. How can anyone get somewhere if they do not know where they are headed? Each party in a co-management arrangement may have different values and interests but if they know where they want to go, they can take action to move in the right direction. To formulate an acceptable vision, consideration needs to focus on desirable futures and not just probable ones (Mitchell 1997).

Since the publication of *Our Common Future* in 1987, sustainable development has been viewed by many as the vision to pursue (Mitchell 1997). The aim of meeting present needs without compromising the ability of future generations to meet their own needs is a slippery concept, being extremely vague and ambiguous. The Brundtland Commission put forth this idea (with associated critical objectives) as a pathway, not a blueprint, through which different countries could follow to create appropriate policies and practices. Sustainability is not some end to be achieved but a vision to be adapted continuously as symptoms and evidence of non-sustainability are recognized and corrected. Local participation and use of local knowledge being a necessity in fleshing out the details and correcting problems.

"No resource systems, nor the institutions associated with them, can be sustained as is in perpetuity. Changes in both are inevitable. What *must* be sustained, however, is the capacity for renewal and evolution in ecosystems, and innovation and creativity in social systems" (Francis 1995:4).

Visions in resource management require accompanying processes to identify issues and problems, assemble necessary information and viewpoints, determine alternative solutions and select a course of action. Given the amount of interrelationships and linkages involved within and between various systems, an ecosystem approach would seem ideal - attention focused on broadly defined systems rather than focusing on specific resource sectors (e.g. water, forestry, minerals). Criticism of such comprehensive approaches points to the inclusion of so many variables and subsystems that the problem becomes overwhelming. Realistically, the "big picture" approach cannot be operationalized on the ground. Therefore, the move has been to integrated resource management with stress put on the importance of partnerships, the contribution of local knowledge, and the benefits of adaptiveness (Mitchell 1995).

Today, local people are expecting to get more involved and have a formal role in decision-making. An important element of co-management regimes is the formal nature of agreements between actors - outlining participation, structure, process, and responsibilities - that affect their establishment (Winn 1991). Informal rights are adequate only in certain situations, cases where government does not have the resources to impose other rules or introduce conflicting fisheries. Informal systems can do well only when they are free of external threats from more powerful actors. In some cases, government does recognize their importance and supports their efforts, thereby transforming the system into a co-operative one (Pinkerton & Weinstein 1995).

Co-management regimes can help facilitate the goal of sustainability. As outlined earlier by Pinkerton & Weinstein (1995), good general predictors of sustainable management are mechanisms of accountability, mechanisms for effective management,

mechanisms for equitable representation, and mechanisms for adaptiveness. Co-management brings government agencies and user groups together to develop these mechanisms.

The ultimate purpose of planners and managers is to resolve a problem. The vision and process should lead to an output, possibly a new management body, strategy or plan. These outputs should be viewed as flexible and adaptive, having the capacity to adjust so improvements can be made. Equal attention needs to be given to the process as well as the product. Proper implementation and monitoring can ensure that adjustments can be made and the process never ends. The role of individuals that are committed, have a creative capacity, and knowledge of the issues is key at all stages, from developing a vision to monitoring and adapting the process.

Literature review is the main method of data collection. Personal experience in fisheries co-management within the Aboriginal Fisheries Strategy is used to relate information within the agreements to management functions and the evaluative criteria. Unstructured personal interviews were also held when relevant, mostly as fact-finding exercises, and individuals were contacted to review each case study.

Work was carried out for the Tahltan First Nation for three years in their Fisheries Department as an Assistant Fisheries Supervisor (1995) and Fisheries Supervisor (1996 & 1997). Responsibilities included overseeing the yearly implementation of the AFS (e.g. payroll, accounting, quarterly reports, etc.) and its seasonal projects (e.g. purchasing equipment, arranging training programs, organizing crews, etc.). There was no involvement in formulating the overall agreements themselves but funds and projects for the Tahltan First Nation were negotiated within their multi-year agreement (1995-1999).

The experience gained was at an operational level whereas this thesis is based on the normative level. For this reason, my evaluation of the seven case studies was not unduly influenced by my experience with the Tahltan First Nation.

As an academic researcher on fisheries co-management, this author feels operational experience is essential to allow practical evaluations of these regimes and suggestions for their improvement. Experience "in the field" working with the Tahltan First Nation and DFO has complemented the literature reviewed. The results of this research will be made available to both the Tahltan First Nation and the Department of Fisheries and Oceans (Whitehorse & Ottawa).

The seven case studies examined in this thesis are all using the process of co-management to involve stakeholders in management functions and decision making, identify issues and problems, and determine possible solutions. The "product" they have generated, be it the institutions created or the management functions within agreements that have been signed, are evaluated against criteria from McDaniels, Healey & Paisley.

4.4 Case Studies

Some co-management regimes can and do fail while others continue to evolve and move forward to more comprehensive co-management (Pinkerton 1989:6). Co-management is not a simple matter but there are enough examples of success over significant periods of time to indicate that these arrangements can work. Success is measured in terms of achieving three key ingredients: a strong link to and support from community and government institutions, directly or through a co-management body; effective participation of users in decision-making processes and in the design and

conduct of research; and capacity building (e.g. adequate funding, and the removal of cultural and linguistic barriers; Osherenko 1988a&b; NRTEE 1988). Both success and failure provide important lessons and can suggest necessary changes or improvements to be made. This author believes that by examining some of British Columbia's fishery co-management agreements and Canada's comprehensive claims in relation to the Tahltan AFS agreement, important lessons can be learned for the future of fisheries management in B.C.

Previous fisheries co-management research has looked to international examples (Pinkerton 1994) or a mix of international and local or Canadian (Pinkerton 1989; Pinkerton & Weinstein 1995) examples to guide approaches to B.C. fisheries co-management. Others have focused specifically on aboriginal claims co-management structures to identify difficulties or to offer successful components (Osherenko 1988a&b, Campbell 1996, MacLachlan 1994). This study examines co-management systems and their associated processes in Canadian Aboriginal Claims and within the Province of British Columbia to see how each measures up to the criteria McDaniels, Healey & Paisley (1994) developed for salmon co-management in British Columbia.

McDaniels, et al. (1994) noted that it is tempting to look at the co-management experiences elsewhere to see if examples can be drawn that serve as precedents for the situation in British Columbia. However, they felt that it was important to mention that the experience elsewhere may or may not be relevant in B.C. In some sense, searching for precedents is effectively a means of constraining the possible range of alternatives to be considered. This concern is acknowledged. If successful co-management arrangements depend heavily on local circumstances, this study is trying to provide the most

appropriate research by choosing three Canadian claims and four B.C. fisheries co-management agreements against specific criteria developed for the B.C. salmon fishery.

Emphasis within the province of British Columbia is on Gitxsan fishery management, the Nisga'a Agreement-in-Principle, and the Tahltan AFS agreement. Each of these cases has been involved in managing fisheries with an AFS agreement. In a broader B.C. context, the Skeena Watershed Committee is also examined. In the northern claim-based literature, attention will be given to the fisheries provisions in the Inuvialuit Agreement, the Umbrella Final Agreement in Yukon, and the Nunavut Agreement. Each claim agreement provides a different insight into claim processes and the treatment of fisheries provisions.

4.5 Building an Evaluative Framework

Before effectiveness can be assessed, the context of each case study needs to be outlined. The context reminds us that any partnership or public participation exercise occurs with reference to previous events and decisions, historical relationships between partners, institutional arrangements and agency features (Mitchell 1997). The context of each of the seven cases will include such characteristics as: the co-management institution (e.g. types of actors, number of parties); geographic area; problems addressed; funding mechanisms; role of the government agency; and legal status of First Nations' management activities (e.g. Whether there is a legal mandate to carry out activities.).

Traditionally, DFO was responsible for all fisheries management functions. When another party becomes involved in management, in our case a First Nation, each function or activity in which it participates either formally or informally, corresponds to a right or

duty being exercised (Pinkerton & Weinstein 1995; Table 2). Not all communities or groups want to be involved in all aspects of management. They may want to be involved only in areas of management where conflicts tend to arise and problems need to be solved. In some cases, tradition may require a leader to exercise certain duties and responsibilities toward its members. It will be interesting to see how each group participates within the various fisheries management functions.

Table 2 Management Functions with Associated Rights and Duties

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks
Compliance with Rules	enforcing and implementing rules
Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring
Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities
Returning Optimum Value to Fishers	maximizing benefits through: supply management, quality enhancement, and product diversity

(Pinkerton & Weinstein 1995)

4.5.1 Criteria

The introduction of the AFS demonstrated a major shift in organizational practice (e.g. responsibility for management functions) and philosophy for DFO. McDaniels, et al. (1994) reviewed the AFS after its first year using a multi-attribute value assessment, as applied in pubic policy contexts, to determine the design of the best possible cooperative

management programs. The approach entailed key stakeholder interviews to discuss factors that should be important in guiding the design of fisheries co-management initiatives involving First Nations in B.C. From these interviews, fundamental objectives for salmon co-management in British Columbia were developed. These objectives form the basis for this study's evaluative criteria (Table 3).

These criteria were chosen because they come from the same premise as this thesis - the AFS and factors important to the design of successful fisheries co-management initiatives involving First Nations in British Columbia. Although Hawkes' (1996) sixteen criteria for ideal co-management developed through protected areas literature and a report from the B.C. Roundtable on the Environment and the Economy are tempting, I chose to stay within the fisheries co-management literature and to build on a previous study. As pointed out in the section on previous research, there is a lack of synthesis, systematic analysis, and theory in the research. This research will provide some consistency.

Each sub-criterion of McDaniel's, et al. (e.g. enhancing/restoring habitat, improving stock abundance) was assessed as strong, moderate or weak in the case studies. Strong, if it was stressed within the agreement; moderate, if it was mentioned but there was no mechanism or it had not been fully implemented; weak, if it was excluded from the agreement or there was evidence that the sub-criterion was not being met. An individual associated with each co-management agreement was chosen to review the background information, management functions chart, and the evaluative chart. Feedback from these individuals helped to determine the designations. To support each sub-criterion's designation, relevant points from the agreements are presented.

Table 3 Criteria for Evaluation

Improving Habitat
Monitoring habitat
Enhancing/restoring habitat
Protecting habitat against other harmful uses
Improving Stock Health
Improving stock diversity
Improving stock abundance
Improving Community Economic Well-being
From fisheries harvest and processing
From fisheries management
Improving Equity
For Aboriginal interests
Among Aboriginal groups
For future generations
Improving Trust and Cooperation
Among all users
Between First Nations and DFO
Improving Community Involvement
Using local knowledge
Using local protection
Using local decisions
Improving Opportunities for Learning
About fisheries
About science
About First Nations rights

(McDaniels, Healey & Paisley 1994)

4.6 Summary

There are many ways and means to move into co-management in British Columbia but rather than searching for a magic formula, we must work to develop mechanisms and a process (MacLeod 1989). The structure and process of a regime deeply influence the nature of interaction between its aboriginal and non-aboriginal membership and the way in which decisions are made (Winn 1991; Campbell 1996). An examination of each case's context, management functions and relation to the evaluative criteria, will

indicate its level of achievement towards the three key ingredients of successful co-management. Chapter Five contains the analysis of the seven case studies while Chapter Six uses a summary chart to compare the cases in terms of the evaluative criteria developed by McDaniels, Healey & Paisley.

5

The Case Studies

In British Columbia, many First Nations are looking to claim settlements to improve fisheries co-management arrangements but what would these improvements entail? Treaty regimes with equal aboriginal involvement in decision-making have been considered the "ideal" but other forms of co-management including multi-stakeholder regimes must also be considered because any regime would inevitably have to be linked to local committees, regional boards, and provincial strategies to be effective at the larger scale. This study examines co-management systems and their associated processes in Canadian Aboriginal claims and within the Province of British Columbia to see how each measures up to the criteria developed by McDaniels, Healey & Paisley (1994) for salmon co-management in British Columbia. This author believes that by examining some of British Columbia's fishery co-management agreements and Canada's comprehensive claims in relation to the Tahltan AFS agreement, important lessons can be learned for the future of fisheries management in B.C.

Within this chapter, details of these seven different fisheries co-management systems are described in terms of their context and fisheries management functions. The performance of each agreement in relation to the criteria developed by McDaniels, Healey & Paisley appears in an evaluative chart at the end of each case study. The three claim agreements are discussed first, followed by the four agreements from British

Columbia. Further background information (context) on the claims and agreements can be found in Appendix I.

5.1 Claims

Comprehensive land claim settlements have been pursued by aboriginal organizations throughout the Canadian North as one means of securing access to land and resources and ensuring the establishment of administrative structures. Co-management regimes comprising both traditional users and government representatives (Federal & Territorial) have formalized aboriginal involvement in resource and environmental institutions (Canadian Arctic Resources Committee [CARC] 1988; Council for Yukon Indians 1984). These management bodies are constitutionally and legislatively protected and permanent.

Attention will be given to the fisheries provisions in the Inuvialuit Final Agreement, the Umbrella Final Agreement in Yukon, and the Nunavut Land Claims Agreement (Figure 3). These agreements represent all the major modern Canadian comprehensive claim agreements with extensive resource provisions. Each claim agreement provides a different insight into claim processes and the treatment of fisheries provisions.

5.1.1 Inuvialuit Final Agreement (IFA)

The IFA was settled in 1984 and brought into force by the *Western Arctic (Inuvialuit) Claims Settlement Act*. The IFA provided approximately 2,500 people with legal title to selected lands, financial compensation, and a variety of other rights (e.g.

hunting, fishing, and trapping) in exchange for the extinguishment of their Aboriginal claims and titles to the rest of the land in the Western Arctic. The Inuvialuit received title to 91,000 square kilometres of settlement land within their larger settlement region.

"A basic goal of the Inuvialuit Land Rights Settlement is to protect and preserve Arctic wildlife, environment and biological productivity through the application of conservation principles and practices" (IFA Sec. 14(1)). Focusing on fisheries provisions in this claim agreement, the Fisheries Joint Management Committee (FJMC) has powers solely with respect to fish, but is subject to the broad statement of principles of "wildlife" harvesting and management set out in section fourteen of the IFA (Doubleday 1989). The FJMC was created in 1986 by the Minister of Fisheries and Oceans to advise and assist on matters relating to Inuvialuit and Inuvialuit Settlement Region fisheries (IFA Sec. 14(61)). It consists of five members: 2 beneficiaries appointed by the Inuvialuit Game Council (IGC); 2 Federal - DFO; and 1 Chair, selected by the membership.

The scope of the FJMC includes freshwater, anadromous, and marine fisheries and marine mammals. They have addressed issues and concerns about bowhead and beluga whales, ringed seal, arctic charr, lake trout, and marine shell fish among other organisms (Fisheries Joint Management Committee 1989). The FJMC determines harvest levels, conducts a registration program for general public fishing on land owned by the Inuvialuit, and advises theFederal Minister of Fisheries on matters regarding regulations, policy and administration of fisheries and fisheries research in the settlement region. When a recommendation is made, the Minister must get back to the FJMC within 30 days. If the recommendation is modified or rejected, reasons must be provided for doing so (IFA Sec. 14 (66) & (69)). The Federal Fisheries Minister still retains ultimate

authority with the Department of Fisheries and Oceans the central government agency responsible for fisheries issues in the Inuvialuit settlement region.

Hunting and Trapping Committees (HTCs) provide the link to the communities. They are responsible for dealing with fish and wildlife issues within the six communities of the settlement region. The HTCs have been active in the collection of harvest data, the preparation of community conservation plans, and establishing by-laws that regulate Inuvialuit harvesting. They also provide advice to the Environmental Impact Screening Committee on development activities in their areas. The HTCs promote Inuvialuit participation in research, management, enforcement, and use of wildlife and fisheries resources. When requested, the HTCs assist the wildlife management advisory councils and the fisheries joint management committee in carrying out their duties (RCAP 1996:737). Table 4 summarizes the fisheries management functions carried out through the IFA by the Fisheries Joint Management Committee (FJMC) and the Hunting and Trapping Committees (HTCs).

Table 4 Fisheries Management Functions Carried out Through the IFA

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education	- the FJMC reviews information on the state of the fishery in the Western Arctic; they conduct research projects to increase knowledge of fisheries and marine mammals in the region (50-60% of budget); community consultation and conservation management plans have been developed by HTCs with IGC and FJMC involvement
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks	- the FJMC and the HTCs collect needed information; have the Environmental Screening Committee and Environmental Review Board to protect stocks and their habitat
Compliance with Rules	enforcing and implementing rules	- the FJMC has a registration system; HTCs can make by-laws concerning harvest and usage

Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring	- the FJMC determines current levels of harvest; they determine the role of HTCs in regulating the harvest and collection of the data
Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest	- Inuvialuit have first priority; the FJMC has developed a registration system; they can deny entry to people who abuse their right to fish; the FJMC determines subsistence quotas, the IGC allocates quotas to the six HTCs, the HTCs allocate within the community
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities	- the FJMC advises the Minister on all aspects of fisheries management and at all levels (local to international); the FJMC recommends Inuvialuit subsistence quotas and advises the Minister on the allocation of commercial quotas
Returning Optimum Value to Fishers	maximizing benefits through supply management, quality enhancement, and product diversity	- conservation is the only consideration; the Inuvialuit may sell, trade or barter fish and marine products acquired through subsistence harvesting to other Inuvialuit, without restriction; they also have the right to sell non-edible products legally harvested

(IFA Sec. 14(64); Winn 1991)

As one can see, the FJMC has many management functions devolved to it. The Committee has also been successful in the development and implementation of resource management plans (e.g. Beaufort Sea Beluga Management Plan, Inuvialuit Renewable Resource Conservation Management Plan; Carpenter, et al. 1991). The FJMC travels to all six communities yearly, when the budget allows, to hear the needs and concerns of the harvesters first-hand. This helps to focus the FJMC's agenda and to contract out projects to the HTCs in different communities (e.g. test fisheries). DFO also attends some HTC meetings to enhance information exchange and hear local concerns about issues. Involvement in these meetings is extremely important due to the oral traditions of the Inuivialuit people. An evaluation of the IFA's fisheries provisions in relation to the criteria outlined by McDaniels, et al. is presented in Table 5.

Table 5 Evaluation of the Inuvialuit Final Agreement

Improving Habitat	Monitoring habitat	Moderate	- the FJMC "monitors" as it sees fit, allocating funding to this area when necessary
	Enhancing/restoring habitat	Weak	- possibly through research recommendations
	Protecting habitat against other harmful uses	Moderate	- Environmental Impact Screening & Review Board are used to assess the impacts of any development affecting fisheries
Improving Stock Health	Improving stock diversity	Strong	- the FJMC reviews and collects knowledge on fisheries and marine mammals in the region; they also make recommendations to the Minister
	Improving stock abundance	Strong	- the stocks are being actively managed
Improving Community Economic Well-being	From fisheries harvest and processing	Moderate	- Inuit have first priority; can sell, trade or barter fish and marine mammal products acquired in subsistence fisheries (subject to conservation and quotas) to other Inuvialuit (IFA sec. 14(24))
	From fisheries management	Strong*	- the government agrees to implement suitable arrangements for the commercial fishery within the settlement region in order to accommodate special economic and marketing needs of the fishery (IFA sec 14(34))
Improving Equity	For Aboriginal interests	Strong	- the role of the IGC; the Inuvialuit have equal representation on the FJMC and all the other Renewable Resource Committees
	Among Aboriginal groups	Strong	- local HTCs and the IGC have fostered more involvement
	For future generations	Strong	- a goal of the Inuvialuit Land Rights Settlement is to protect and preserve Arctic fish & wildlife for future generations
Improving Trust and Cooperation	Among all users	Strong	- the HTCs and IGC accomplish this
	Between Inuit and DFO	Strong	- the IFA and its co-management institutions have created a climate of confidence, certainty and control for the Inuvialuit (RCAP 1996)
Improving Community Involvement	Using local knowledge	Moderate*	- HTCs recommend and carry out research in their areas; they also develop their own conservation plans
	Using local protection	Moderate*	- HTCs can make by-laws; FJMC has a registration system
	Using local decisions	Moderate*	- HTCs input concerns to FJMC; the FJMC advises the Minister; the FJMC determines subsistence quotas
Improving Opportunities for Learning	About fisheries	Strong	- the FJMC travels to the communities for input; the HTCs carry out research projects
	About science	Strong	- DFO travels to some HTCs to discuss concerns; traditional knowledge is trying to be incorporated; the FJMC has recently instituted a student mentoring program to encourage beneficiaries to pursue careers in science, esp. fisheries biology (Bell, Per. Comm.)
	About Inuit rights	Moderate	- working on implementing HTC by-laws into existing government regulations

* potential exists to be realized through implementation

The FJMC is striving to be accountable and working hard to foster a sense of ownership. Its small membership (no territorial component) has allowed it to be informal and relaxed, developing a cooperative and less bureaucratic approach to decision-making (Winn 1991). To improve the information available for hunters and government, an Inuvialuit harvest study program was set up under the IFA and is administered by the Joint Secretariat. The Joint Secretariat was created for practical reasons during the implementation of the IFA (Bell, Per. Comm.). This program employs people in the communities to record and report yearly on the various harvests in their area, guaranteeing them a strong level of involvement in the management process (RCAP 1996).

Since the signing of the IFA, the Inuvialuit have a more meaningful voice in decision-making. Winn (1991) stated that the level of communication had increased dramatically but the FJMC has still not had a "real test" of its abilities as the stocks are all pretty healthy and strict regulations are not an issue. In response to this, Bob Bell (Per. Comm.) informed the author that there has been two river closures and several significant charr harvest reductions as a result of the FJMC's working with the HTCs. Even so, some concerns have arisen: By retaining responsibility for the activities and management at the FJMC level, the communities and Inuvialuit people themselves may not have as much control or influence to integrate traditional knowledge or affect decision-making. Are communities assisting or having an instrumental role in co-management? Do they just implement regulations and collect data to assist co-management bodies or do they have a real say? (Doubleday 1989). In addition, there is difficulty in achieving amendments to government legislation, regulations and administrative arrangements to ensure

consistency with the IFA (RCAP 1996). These will require further change in the bureaucratic environment and an increased acceptance of traditional knowledge and traditional ways.

The IFA had strengths in five out of the seven criteria. It had only one real weakness which was improving habitat. The IFA brought participation in fisheries management activities to the Inuvialuit people creating a climate of confidence, certainty and control (RCAP 1996). It has ensured subsistence fish and commercial activities for the communities. The FJMC and the HTCs were formed to conduct research and bring concerns and recommendations to government. The policy associated with fisheries management was brought down to the community level from above. It is still encountering a few implementation problems but the system is working well and moving forward.

The Yukon Umbrella Final Agreement (UFA) differs from the Inuvialuit agreement in four main ways. It had to take into account the much larger non-aboriginal population in Yukon; as a minority, the First Nations wanted to have their institutions protected from encroachments by public government institutions. Second, the UFA is supplemented by separate final agreements negotiated with each First Nation; these specific agreements allow for special provisions that apply to the individual First Nations. Third, self-government agreements are negotiated with final agreements. Finally, the Yukon aboriginal people are not required to completely extinguish their Aboriginal title (Whittington 1990).

5.1.2 Yukon Umbrella Final Agreement (UFA)

An agreement-in-principle was accepted by all parties in 1988 and the Yukon Umbrella Final Agreement (UFA) was initialed on March 31, 1990 (INAC 1996a). The UFA is the framework within which each of the fourteen Yukon First Nations (approximately 8,000 people in total) will conclude a final claim agreement; all UFA provisions are a part of each First Nation's final agreement. The UFA settlement area is the whole of the Yukon Territory. The First Nations received title to a total of 41,439 square kilometers of settlement land within the Territory. This land will be divided by the fourteen First Nations as they settle their individual claims.

Chapter Sixteen of the UFA sets out a comprehensive framework to guide and integrate the management of fish and wildlife within the entire Yukon settlement area. The broad objectives of the proposed management framework are to conserve wildlife resources and their habitats, to guarantee Yukon First Nations' rights to harvest and manage renewable resources on settlement land, and to ensure the involvement and fair treatment of other Yukon resource users (RCAP 1996:743). The Council for Yukon Indians (n.d.) saw these objectives being achieved by developing responsibility for fish and wildlife at the community level and establishing basic needs guidelines. Basic needs are the amount of fish and wildlife required by each community each year.

At the territorial level, a Fish and Wildlife Management Board (FWMB) was created to manage fish and wildlife with a sub-committee to advise on salmon. The FWMB is made up of fifty percent aboriginal members and fifty percent Yukon government members. The salmon sub-committee has evolved into the Yukon Salmon Committee (YSC) and has between fifty to seventy percent aboriginal members

participating depending on the issue at hand. Within each traditional territory, the First Nation is responsible for fish and wildlife management. At the community level, Renewable Resource Councils (RRCs) are the "primary instrument for local renewable resources management" to ensure public involvement. RRCs have three nominees from the Yukon First Nation and three nominees from the Territorial Minister. The Yukon government is to cover the costs associated with the set-up and operation of the RRCs.

Salmon fishing in the Yukon is governed by international treaties and a few interconnecting institutions which work together to preserve and enhance the territory's salmon stocks. Added to this international management arrangement is the Yukon Salmon Committee, mandated by the Umbrella Final, to deal with all aspects of salmon management in Yukon (Yukon Salmon Committee 1997). DFO is no longer responsible for salmon management in Yukon. This responsibility has been passed to the YSC (Zealand, Per. Comm.). DFO provides technical and administrative support to the Salmon Committee and still administers the federal *Fisheries Act*, regulations and policies. The YSC is a forum for public involvement in all aspects of the management of salmon stocks and fisheries having representation from both First Nations and other members of the Yukon public. The Minister nominates two members, the FWMB nominates two individuals (at least one aboriginal), and the affected First Nations in the three major drainage basins - Yukon, Alsek, and Porcupine - nominate two members each. The members serve five-year terms. In addition, a senior DFO official serves as the executive secretary of the salmon committee. The YCS may make recommendations to the Minister and to Yukon First Nations on all matters related to salmon, their habitats and management, including legislation, research, policies and programs (UFA 16.7.17.11).

Inside their settlement area, First Nations have the authority to manage, administer, allocate or otherwise regulate the exercise of the rights of fish and wildlife activities for aboriginal and non-aboriginal residents (UFA 16.5.1). They co-ordinate their activities with other fish and wildlife programs when necessary and decide when adjustments need to be made to their basic needs level. First Nation representatives also participate in RRCs and on both the FWMB and the Salmon Committee.

The Renewable Resource Councils have been established to play an advisory role for local renewable resource management, including development of certain fish and wildlife management plans. The RRCs give local recommendations to First Nations, the FWMB and the Salmon Committee concerning these areas: management plans, harvesting plans and allocation, local management concerns, priorities and policies related to enforcement of regulations, granting of research permits, and terms of commercial harvests (RCAP 1996). Table 6 summarizes the fisheries management functions carried out through the UFA by the Yukon Salmon Committee (YSC), the First Nations (FN) and the Renewable Resource Councils (RRCs).

Table 6 Fisheries Management Functions Carried out Through the Yukon UFA

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education	- the YSC is in charge of salmon in the Yukon; it seeks input on management plans at all levels; all institutions (FN, RRCs & YSC) screen and approve research and surveys
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks	- the YSC recommends policies for salmon and their habitats, including legislation; all institutions involved have access to government information and consultants reports; can recommend research or surveys to carry out

Compliance with Rules	enforcing and implementing rules	- RRCs may forward concerns and recommendations to the Minister on priorities and policies related to enforcement of legislation and on alternatives to penal sanctions
Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring	- FN have first priority; FN can use traditional methods; FN and RRCs recommendation on timing of harvest and management plans are forwarded to the YSC; the YSC makes recommendations to the Minister; the YSC must ensure that basic needs allocations are met; FN to collect their harvest information, issue permits or tags and their fees for basic needs level
Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest	- the YSC will consult FN and then recommend allocation (amount & area) to salmon to users; subject to FN Final Agreements, the YSC will also recommend allocation of terms and conditions for commercial uses of salmon
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities	- the YSC recommends on the need for, position on, interjurisdictional agreements affecting Yukon salmon; the YSC deals with the three river basins; the FWMB co-ordinates plans and activities in the settlement area; the FWMB recommends to FN when they need to get involved with other management programs
Returning Optimum Value to Fishers	maximizing benefits through supply management, quality enhancement, and product diversity	- subject to conservation, FN can trade, barter or sell domestic fish (not commercial) to adjacent FN; FN can trade, barter or sell non-edible by-products from domestic fish; the YSC recommends on new opportunities and proposed management measures for commercial salmon uses

(UFA 16, CYI n.d.)

Various recommendations have been put forward from the Yukon Salmon Committee to ensure that salmon resources in Yukon are preserved for future generations. Recommendations being considered at this time are: 1) sport fishing - salmon stamps, salmon punch cards, and creel surveys, and 2) commercial fishing - license retirement. The salmon stamp would be an add-on to the sport fishing license, helping to keep track of salmon fishing and providing funding for the punch card tracking system. Annual

Creel surveys in heavily fished areas, along with punch cards, would provide an accurate picture of the sport fishing harvest (Yukon Salmon Committee 1997). Domestic fishing recommendations - existing activities, license requirements, determining an individual's need, and regulations - have been brought forth to the committee from a consultant, and are now being explored with the public.

During the next five years, the commercial salmon fishery may not be economically viable for some of the thirty licensed fishers in Yukon as management processes will be put in place to rebuild the Yukon River salmon runs. Eight of these licences will be permanently retired as eight new licences for First Nations were added as a result of the UFA. It was proposed that commercial fishers be able to temporarily retire (offered a cash buy-out) their licences for the next five years. This would allow the remaining fishers an economically viable fishery (Yukon Salmon Committee 1997). The Salmon Committee has recommended a permanent buy-out of a certain number of licences to allow the stocks to recover (Zealand, Per. Comm.). An evaluation of the UFA's fisheries provisions in relation to the criteria developed by McDaniels, et al. is presented in Table 7.

The Federal government's department of Indian and Northern Affairs Canada (1996a) sees all Yukon residents benefiting from the UFA through: 1) certainty of ownership and management of lands and resources over a large area of the Yukon, 2) aboriginal people having the resources to participate in, and benefit from, economic opportunities, 3) self-government structures allowing First Nations to exercise law-making powers on settlement lands in the areas of land use and control, hunting, trapping

Table 7 Evaluation of the Yukon Umbrella Final Agreement

Improving Habitat	Monitoring habitat Enhancing/restoring habitat Protecting habitat against other harmful uses	Weak Weak Moderate*	- theYSC, FN, and RRCs recommend research to be carried out but all their information comes from consultants or government - the YSC is in charge of salmon habitat; the Yukon Development Assessment Board protects and maintains environmental quality
Improving Stock Health	Improving stock diversity Improving stock abundance	Strong Strong	- the YSC makes recommendations on all salmon management plans, research, policies and programs - measures put in place to rebuild the Yukon River salmon runs
Improving Community Economic Well-being	From fisheries harvest and processing From fisheries management	Moderate Moderate	- FN received 26% of commercial salmon licenses; FN can trade, barter or sell domestic fish to other FN - the YSC can recommend on new opportunities and management measures for commercial salmon uses
Improving Equity	For Aboriginal interests Among Aboriginal groups For future generations	Strong Moderate Strong	- the management framework guarantees FN rights to harvest and manage renewable resources on settlement land; Self-government agreements - not all FN have settled their Final Agreement - a joint Government-Yukon First Nation Fish & Wildlife Enhancement Trust Fund was set up meet the UFA's Chapter Sixteen objectives
Improving Trust and Cooperation	Among all users Between First Nations and DFO	Moderate Moderate	- RRCs are the primary instrument to ensure public involvement; the YSC is also a public forum - the YSC brings FN and governments together to work on issues; all FN are not fully involved until their Final Agreements are signed
Improving Community Involvement	Using local knowledge Using local protection Using local decisions	Moderate Moderate Moderate	- the management framework was set up to ensure the inclusion of traditional knowledge in resource management - RRCs recommend priorities and policies related to enforcement of regulations; FN allocate and regulate quotas in their settlement areas - the FN and RRCs forward their concerns to the YSC which makes recommendations to the Minister
Improving Opportunities for Learning	About fisheries About science About First Nations rights	Moderate Weak Moderate	- FN & RRCs contact the YSC with concerns and to coordinate activities; - consultants carry out studies and DFO provides some necessary information - FN have the authority to manage on their settlement land; participate on co-management boards

* potential exists to be realized through implementation

and fishing, licensing and the regulation of business, 4) industry receiving clear requirements for environmental protection and approval mechanisms.

Concerns over integration and coordination in the UFA's management set up have been noted in the RCAP (1996:764) report; "all the management bodies share, to varying degrees, similar responsibilities over the same geographic area. It is not clear where one body's jurisdiction ends and another begins". In the UFA it appears that First Nations retain a degree of decision-making power, but this is couched within a broader management framework. Duplication needs to be avoided if this regime is to be effective.

The Yukon UFA has two criteria with strengths and two with weaknesses. Habitat and opportunities for learning have been identified as areas to improve upon. Proactive strategies in these areas have yet to be introduced and any studies requested from the Yukon Salmon Committee are conducted by consultants. I assume these reports would contain input from First Nations and the general public but this is not the same as building a database from which to work. The responsibility for salmon in the Yukon territory was given from DFO to the Salmon Committee. The Salmon Committee has been involved in stock rebuilding efforts, developing sport fish regulations and new monitoring programs, and discussions on domestic needs regulations. First Nations and RRCs give feedback on issues at hand and forward their concerns to the Salmon Committee. The Yukon UFA has been settled for eight years and six of the fourteen First Nations have Final Agreements with the potential for another three to be completed within four to six months. Co-management structures such as the Salmon Committee and the FWMB will need to adapt as the rest of the First Nations settle and more RRCs are created. Again, coordination and duplication may become a big problem.

Problems with coordination and duplication can also apply to the Inuvialuit Agreement. Even though the Inuvialuit Agreement is fifteen years old, many of the programs are still encountering growing pains. Evaluations have been ongoing and adjustments continually made but there is still much work to be done. The Nunavut Land Claims Agreement may be able to avoid the coordination and duplication problems encountered in the other two claim agreements. In the Nunavut case, a new territory has been created and a new government established.

5.1.3 Nunavut Land Claims Agreement (NLCA)

The Nunavut Land Claims Agreement (NLCA) is the largest Aboriginal land claim settlement in Canadian history, establishing clear rules of ownership and control over land and resources for Inuit in the new territory of Nunavut.

> "In June 1993, a historic agreement between Canada and aboriginal peoples was concluded with the passage by Parliament of two acts: the Nunavut Land Claims Agreement Act and the Act to create the Territory of Nunavut. These two acts, which are closely linked, will re-draw the map of Canada by 1999 and will provide for a new political and economic future for the Inuit and other residents of the eastern and central Arctic" (Shannon 1993).

The settlement region, the new territory of Nunavut, is 1,900,000 square kilometres with the claim's settlement land amounting to 350,000 square kilometres. The Inuit form a solid majority in the territory (17,500 in 1992 and growing). The government will be decentralized, with departments and agencies set up in communities throughout the territory, "thereby sharing the economic benefits and responding to the particular needs of each region" (Nunavut Planning Commission 1997). It will take over sixteen years (1993-2009) for this government to be established.

A fundamental principle guiding the creation of the new territory of Nunavut is that the Inuit of the region are traditional and current users of wildlife with legal rights flowing from this use (RCAP 1996). The Nunavut Wildlife Management Board (NWMB) is the main instrument of wildlife management including fish, and marine mammals. Its mandate is to control all aspects of marine harvesting and conservation in the Nunavut settlement area. The NWMB brings three levels of government under one umbrella and consists of four Inuit appointees, one individual from the Territorial government, three Federal government representatives, and one Chair selected by the NWMB itself. Members are appointed for a four-year term. The government retains ultimate responsibility for wildlife management. In the case of fisheries, the Federal Fisheries Minister reviews NWMB decisions which can be rejected or varied under certain circumstances (Pike, Per. Comm.).

The NWMB works with regional wildlife organizations (RWO) and community-based hunters and trappers organizations (HTO). The NWMB is an institution of public government, while the RWOs and the HTOs are Inuit organizations. Inuit harvesting is overseen by local HTOs which are responsible for regulating and allocating community basic needs levels to members. Beneficiaries have the right to take marine products up to the limit of their basic needs level (first priority), including intersettlement trade. RWOs are responsible for overseeing the hunter and trapper organizations, allocating basic needs levels to member HTOs, and dealing with non-aboriginal issues on a regional level. Resident non-beneficiaries have next priority, then existing economic ventures, then beneficiaries have first refusal for the usage of further allowable catch. The HTOs are open to all Inuit resident in a community (by-laws may be passed to allow non-member

voting). The RWOs are made up of HTO representatives. The HTOs and RWOs are funded by the NWMB which is directly funded by DIAND. In conjunction, these two organizations will have considerable input into decisions related to harvesting, catch allocation, economic development based on marine resources, and marine research programs (Gillies 1995). Table 8 summarizes the fisheries management functions carried out through the NLCA by the Nunavut Wildlife Management Board (NWMB), the Regional Wildlife Organizations (RWOs), and the Hunters and Trappers Organizations (HTOs).

Table 8 Fisheries Management Functions Carried out Through the NLCA

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education	- the NWMB can establish or change conservation area boundaries, approve management and protection plans, and conduct public hearings when necessary
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks	- the NWMB has a major role in wildlife related research, and managing and protecting habitat; the NWMB provides advice to other departments about necessary mitigation measures, identifies zones of high productivity, approves enhancement plans, and regulates enhancement activities; the NWMB carried out an 5 year Inuit Bowhead knowledge study
Compliance with Rules	enforcing and implementing rules	- HTOs allocate community basic needs levels while RWOs allocate regional basic needs levels; RWOs can develop by-laws in relation to allocations
Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring	- the NWMB implements a harvest quota system, conducts a harvest study, sets and adjusts basic needs levels, and establishes and monitors levels of total allowable harvest; HTOs regulate harvest practices and techniques of its members; RWOs are responsible for regulating harvest practices among HTOs

Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest	- by setting the basic needs level, the NWMB has authority over the initial allocation of a total allowable harvest to Inuit; HTOs allocate community basic needs levels and assign any portion thereof to non-members; RWOs allocate regional basic needs levels and the assigning of a regional allocation to non-members or groups
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities	- the NWMB invites public participation and promotes public confidence, particularly Inuit involvement through HTOs and RWOs
Returning Optimum Value to Fishers	maximizing benefits through supply management, quality enhancement, and product diversity	- Designated Inuit Organizations have the right of first refusal on sport and commercial development of renewable resources in the settlement area; non-Inuit harvests are subject to the laws of general application; Inuit can dispose of their harvest freely (barter, trade or exchange)

(NLCA Article 5; RCAP 1996)

In the NLCA, the roles of joint government/aboriginal management boards are more strongly defined than in most settlement agreements (Crowe 1990). There may be short- term problems filling all the positions necessary in the new co-management structures and territorial government as the Inuit are looking to achieve 85% aboriginal representation. Education and training programs will be key factors as more aboriginal professionals and technicians are needed (Crowe 1990). There will be a learning curve while aboriginal and non-aboriginal members develop trust in each others' motives and decisions. This learning experience will shape the way the NWMB and its local and regional organizations work (Welch 1995). An evaluation of the NCLA's fisheries provisions in relation to the criteria developed by McDaniels, et al. is presented in Table 9.

Table 9 Evaluation of the Nunavut Land Claims Agreement

Improving Habitat	Monitoring habitat Enhancing/restoring habitat Protecting habitat against other harmful uses	Strong* Moderate* Strong*	- the NWMB identifies zones of high productivity and has a major role in managing habitat - the NWMB directly advises other departments about mitigation measures; the Nunavut Impact Review Board is responsible for environmental impact screening
Improving Stock Health	Improving stock diversity Improving stock abundance	Strong* Strong*	-the NWMB has a major role in research and makes recommendations to the Minister - the NWMB approves enhancement plans and regulates enhancement activities
Improving Community Economic Well-being	From fisheries harvest and processing From fisheries management	Strong* Strong*	- Inuit have first priority on the resource including fish for intersettlement trade; Inuit have the right to take marine products throughout their territory - Inuit have preference in the development of economic structures based on harvesting; NLCA objective - to provide an economic basis for self sufficiency
Improving Equity	For Aboriginal interests Among Aboriginal groups For future generations	Strong* Strong* Strong*	-the fundamental principal guiding the creation of Nunavut is that the Inuit of the region are traditional and current users of wildlife with legal rights flowing from this use - the role of HTOs and RWOs - NLCA objective - give the Inuit a strong role in the regulation and management of resources; creation of territorial government
Improving Trust and Cooperation	Among all users Between Inuit and DFO	Moderate Weak	- the role of the HTOs, RWOs and ultimately the NWMB - still developing -there will be a learning curve as aboriginal and non-aboriginal members learn how to trust each others' motives and decisions (Welch 1995); regarding 1997 turbot quotas, a Federal Court found that the Fisheries Minister exceeded his jurisdiction by failing to properly consider advice given by the NWMB (NRTEE 1998)
Improving Community Involvement	Using local knowledge Using local protection Using local decisions	Strong* Moderate Strong*	- in the process of collecting traditional knowledge; putting the right people in positions of authority - this is being done (Pike, Per. Comm.) - the HTOs and RWOs allocate basic needs levels; RWOs and HTOs can develop by-laws - the HTOs and RWOs have considerable input into decisions on harvesting, catch allocation, economic development and research programs
Improving Opportunities for Learning	About fisheries About science About Inuit rights	Moderate Weak Weak	- HTOs and RWOs will be involved in carrying out studies - traditional knowledge needs to be incorporated - Govt. legislation needs to be reviewed to ensure conformity with the NLCA

* potential exists to be realized through implementation

The Nunavut agreement has strengths in five out of seven criteria. The fishery and marine resources are very important to their coastal communities. The NLCA had apparent weaknesses in governmental relations and opportunities for learning. This agreement has provided a base for self-sufficiency and a strong role in the regulation and management of resources. The NWMB is the central agency responsible for fisheries with HTOs and RWOs providing input and support at the local and regional level. Each of these organizations has specific responsibilities (Pike, Per. Comm.). The Nunavut Land Claims Agreement's fisheries management provisions have great potential but it will be dependent on its continued implementation. The NLCA has only been in place for five years and will encounter many challenges over the next five to ten years as the territory comes into being.

"Examining land claims and their provisions is worthwhile because they represent the best way of accommodating all interests - aboriginal, government and those of the nation at large - in the modern world" (Crowe 1990:31). These three modern comprehensive claim agreements have had extensive resource provisions comprising newly developed co-management systems. Crowe (1990) determined that the slow progress of claim negotiations is due to the degree of commitment and resources allocated, rather than the inherent weakness of the claim process itself. In each case examined here, there have been local level organizations (HTCs, First Nations, HTOs) linked to a larger co-management board responsible for fisheries (FJMC, Salmon Committee, NWMB). Where third party interests are a concern, committees have been set up to accommodate their input (RRCs in Yukon and RWOs in Nunavut).

The agreements have all achieved some success in the co-management of resources and in the protection of subsistence activities, but as they continue to unfold and develop things may change. Hamley (1995) pointed out that many parts of the Inuvialuit claim have not been implemented adequately (e.g. education standards). It seems as though implementation has been a much lower priority than getting the agreements signed, with territorial and federal governments reluctant to properly finance programs. He recommended that the parties continually assert their position on management boards which control resource development and environmental planning, being alert to opportunities and pitfalls. It is too early to critically evaluate the implementation of either of the other two claims. The Yukon UFA will likely have similar problems, while Nunavut may be able to avoid these problems due to the establishment of a new government in a new territory.

5.2 British Columbia Agreements

For those aboriginal groups without a claim, the *Sparrow* decision distinguished that First Nations have first priority, after conservation, on fisheries resources for food, ceremonial and social purposes. The evolving legal understanding from this decision, and others, means that business-as-usual is not an option for fisheries in British Columbia. Federal and Provincial agencies have created new programs, pilot projects, and models to increase First Nations' role in a management activities. To some in the industry (commercial and sport fishers), some of these programs and the pending resolution of First Nations claims to fisheries are "truly frightening" (Pinkerton & Weinstein 1995:ii). Yet others, and First Nations, view the programs and resolution

of claims as an opportunity to democratize many aspects of fisheries management, making it more accountable to a broader range of management concerns. Even though First Nations are leading the co-management process by using the *Sparrow* decision as a lever, the groups that are "brought kicking and screaming to the discussion table" have just as much to gain (MacLeod 1989:264). When First Nations and other stakeholders come together and work closely on management issues, they are in a far more powerful position to press their common concerns about the loss of fish habitat, enhancement needs, stock extinction, and other issues (Pinkerton & Weinstein 1995).

The diversity of agreements in B.C. will be covered by the Gitxsan fishery management approach, the Nisga'a Agreement-in-Principle (AIP), and the Tahltan AFS. The same criteria will then be applied to the Skeena Watershed Committee. The Gitxsan fishery is based on traditional law and institutions, the Nisga'a AIP is the first comprehensive claim to be negotiated in B.C., and the Tahltans have been involved in managing fisheries as a result of their AFS agreement. The Skeena Watershed Committee differs from these as it brings all interests (aboriginal, commercial and sport) together in the watershed to work on fishery management issues. These cover a diversity of agreements within the province of British Columbia (Figure 2).

5.2.1 The Gitxsan First Nation's Approach to Fisheries Management

The Gitxsan First Nation's traditional territory is the watersheds of the north and central Skeena, Nass, and Babine Rivers and their tributaries. Prior to 1994, the Gitxsan and Wet'suwet'en people were under one political body which had previously co-operated in a land

claim, a court case, and in fisheries management. For simplicity, this case study focuses on the Skeena portion of the Gitxsan fisheries management system. A 200 kilometre length of the Skeena River runs through the territory in which the Gitxsan have an interest with a total of about 5,000 locally resident Gitxsan members. The Gitxsan have drawn heavily from their own traditions to build their current fisheries management system (Pinkerton & Weinstein 1995).

The Gitxsan fisheries management system is highly decentralized, but coordinated. The management unit is based on traditional kin grouping around a "house" (extended family). There are 56 houses, within four clans, each with their own precisely defined resource territories. The House Chief is responsible for controlling access to the house's fishing sites and the timing of fishing activities. House Chiefs also have the right and obligation, under Gitxsan traditional law, to protect fish habitat. Gitxsan law requires equitable access to fishing sites within the house, distribution to house members who are unable to fish, and avoidance of waste. The strength of this system is that the authority of the Chiefs is recognized throughout the aboriginal community and that the rules are based on a shared philosophy and values of the entire society. As a result, rules are self-enforcing and direct conflict is minimal (Morrell 1989:235). The House Chiefs may manage their sites independently, but they too are subject to peer pressure by the community if they do not carry out their duties responsibly.

Gitxsan people have encountered conflicts over their participation in fisheries since the first federal officers came to the Skeena in 1878 and tried to license and regulate the aboriginal fishery. This conflict was heightened in 1888 when the *Fisheries Act* defined salmon taken in the "Indian fishery" as illegal for trade, barter or sale (Morrell 1989). As a result of twenty-three

charges laid in 1977 with unsuccessful convictions, DFO and the Gitxsan-Wet'suwet'en Tribal Council agreed to try to find a mutually acceptable system for management of the fisheries in their traditional territories.

In 1979, DFO and the Gitxsan-Wet'suwet'en Tribal Council began yearly negotiations: DFO wanting to assure annual fishing plans were developed and regulations stopping illegal sales were adhered to; the Council wanting recognition of their House Chiefs' authority and the depleted steelhead and coho stocks rehabilitated. Annual fishing plans were drafted but controversy over the sale of fish continued. No progress was made on federal recognition of the management authority of the Chiefs. The DFO position was that the Minister of Fisheries had to retain ultimate power and responsibility for management decision-making (Morrell 1989).

During the 1980s, the Gitxsan conducted an extensive biological study of their fishery and trained a number of their people in the science of fisheries management and in the operation of the traditional system. These harvest monitoring studies were carried out professionally being accountable to both scientific and political scrutiny (Morrell 1985). The most important harvest management plan proposed was that mixed-stock fisheries should be regulated to optimize the escapement of the weakest stock present in the fisheries (Morrell 1985).

It was not until 1986 that the Gitxsan traditional management system gained recognition. Under the Indian Act, Band Councils have the power to pass band by-laws to govern fishing and hunting on Indian reserves. Such by-laws, if not disallowed by the Minister of Indian Affairs within forty days of passage, supersede any conflicting provisions of the Fisheries Act. In 1986, the Gitxsan had by-laws passed in their favour empowering the House Chiefs to manage and

regulate their fisheries, to test the sale of fish caught in the aboriginal fishery, and to commit the Office of the Hereditary Chief (OHC) to meet with DFO and other users to integrate their management plans with the overall management of the Skeena River (Morrell 1989). DFO now had to recognize the House Chiefs' authority over fisheries within Gitxsan traditional territory.

The Gitxsan and Wet'suwet'en Watershed Authorities (GWWA) were formed in 1991 by the House Chiefs to coordinate their fishing activities and carry out their contracts (harvest plans and seasonal reports) with DFO. Discussion of the GWWA will concern the Gitxsan only. The GWWA consists of three sectors: resource management, fisheries, and mapping. Originally, the GWWA was funded by the Gitxsan - Wet'suwet'en Tribal Council. Now, the fisheries portion is funded through the AFS. The GWWA is staffed by Gitxsan who, within its fishery's sector, act as an interface between the Chiefs and DFO personnel. They interpret the house-based fishery to DFO and other users, and interpret DFO to the Chiefs (Pinkerton & Weinstein 1995). The management activities of the GWWA formalize and extend some of the traditional harvest management activities of the House Chiefs. The Chiefs are still responsible for space and time access, exclusion, and membership transfer. The GWWA performs stock assessments, enforcement duties, use-coordination, monitoring of habitat and harvest, policy development, education, and research (Pinkerton & Weinstein 1995). Table 10 summarizes the fisheries management functions carried out by the Gitxsan First Nation.

Table 10 Fisheries Management Functions Carried out by the Gitxsan First Nation

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education	- GWWA staff meet with the Chiefs post season to discuss the state of the stocks, habitat inventory, the fishery, gear development, etc.; the GWWA's role is educational: to coordinate a discussion of policy options, to plan research activities, to recommend if Chiefs need to integrate their fisheries
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks	- DFO is carrying out two enhancement programs in the Lake Babine system; GWWA began inventories in 1992 and evaluated choices of index streams from 50-60 tributaries in the Gitxsan area
Compliance with Rules	enforcing and implementing rules	- traditionally, peer pressure was enough; as part of the AFS, six Gitxsan fishery officers were trained to enforce the *Fisheries Act*; DFO works in conjunction with the Gitxsan on this issue
Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring	- GWWA collects in-season harvest data and passes it on to DFO; the GWWA decides when in-season closures are necessary and consults with DFO; DFO and GWWA participate in a joint tagging program; GWWA conducts spawning escapement surveys of all sockeye tributaries in the territory and the major coho tributaries
Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest	- the duty of the House Chiefs
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities	- the GWWA internally coordinates the traditional house system; the Gitxsan participate in the Skeena Fishery Commission with other aboriginal groups and the Skeena Watershed Committee with all other users
Returning Optimum Value to Fishers	maximizing benefits through supply management, quality enhancement, and product diversity	- ESSR fisheries have brought important economic benefits to the region; selective harvesting methods

(Pinkerton & Weinstein 1995; Morrell 1989)

Meeting with DFO and coming to terms with the sale of fish caught under an Aboriginal license transpired under the Aboriginal Fisheries Strategy in 1992. The agreement specified that an upriver Gitxsan commercial fishery could take place on enhanced Babine Lake sockeye stocks which are in excess of the spawning to salmon requirement, an ESSR harvest. Selective harvest methods were used. A portion of the funds earned in the harvest go back into the GWWA for management costs. The Gitxsan and DFO have also worked together on genetic stock identification, cooperative enforcement, data analysis, and sales monitoring (Pinkerton 1996). The Federal Fisheries Minister still retains final authority.

In terms of the OHC's commitment to coordinate with other users in the Skeena watershed, the Gitxsan participate in fisheries management on a regional context as well. They are a member of the Skeena Fisheries Commission (SFC), an aboriginal body that began in 1989 to build an enforcement regime on the Skeena on the basis of traditional law (Duiven, Per. Comm.). The SFC has coordinated Aboriginal agreements with government on the Skeena since 1992. In the case of the AFS, there is one watershed agreement and five Nation-based agreements. As part of the SFC, the Gitxsan also participate in the Skeena Watershed Committee, a multi-party body for dealing with basin-wide issues (discussed later).

The Gitxsan approach seems to have many of the features of the claim co-management structures with a stronger, more traditional base. Local involvement is superior due to their House Chiefs, the GWWA, and involvement in regional boards. The Gitxsan have developed their own watershed authority, conducted their own biological studies, and were determined to

get their management system recognized. In the process, they made a commitment to consult with other interested parties. They have done all this without a comprehensive claim to protect their traditional management system and make their co-management relationship with DFO permanent. An evaluation of the Gitxsan First Nation's management approach in relation to the criteria developed by McDaniels, et al. is presented in Table 11.

The Gitxsan have strengths in all seven areas of evaluation. Gitxsan involvement in fisheries management began in the 1980s when they decided to conduct their own scientific studies on the fisheries and pushed to get their traditional system of authority recognized. From these successes, the GWWA was formed, an AFS agreement was entered into, and the aboriginal fisheries officer (Guardian) program attended. The Gitxsan have also developed selective fishing methods, participated in watershed level organizations (SFC & Skeena Watershed Committee), and have gone to court to further define their Aboriginal rights. From the beginning, they have been proactive in their approach to fisheries management. The Gitxsan have had a strategic plan built from community interests. It was easy to implement and adapts to new information and situations when necessary. The AFS has been extremely helpful to them but their fisheries management system involves so much more.

Table 11 Evaluation of the Gitxsan Management Approach

Improving Habitat	Monitoring habitat Enhancing/restoring habitat Protecting habitat against other harmful uses	Strong Strong Strong	- the GWWA began inventories in 1992 - have chosen index streams within the Gitxsan traditional territory - working with other groups to protect the habitat and stocks; co-ordinate efforts with the provincial government
Improving Stock Health	Improving stock diversity Improving stock abundance	Very Strong Strong	- the Gitxsan stress managing for the weakest stocks; gear selection - the Gitxsan have carried out harvest and escapement studies since 1980; they participate with DFO on a tagging program
Improving Community Economic Well-being	From fisheries harvest and processing From fisheries management	Strong Strong	- high catch per unit effort; low capitalization; ESSR harvests; 1,000 people employed - 300 directly in the harvest - the House Chiefs have this responsibility; programs within the AFS help
Improving Equity	For Aboriginal interests Among Aboriginal groups For future generations	Very Strong Very Strong Very Strong	- by getting their House Chief system recognized in 1986 - they participate in Skeena Fisheries Commission - the Gitxsan have achieved great strides with the *Delgam Uukw* decision
Improving Trust and Cooperation	Among all users Between First Nations and DFO	Strong Strong	- the House Chiefs have always been respected; the GWWA aids in coordinating the Houses - the GWWA plays a vital role; the AFS has brought these relations a long way
Improving Community Involvement	Using local knowledge Using local protection Using local decisions	Strong Strong Strong	- the Gitxsan have carried out their own studies since 1980 and fully coordinate studies under the AFS - traditionally, peer pressure; the Gitxsan have trained Aboriginal Fishery Officers - decisions come from the House Chiefs; GWWA decides when in-season closures are necessary
Improving Opportunities for Learning	About fisheries About science About First Nations rights	Strong Strong Strong	- able to attempt new technologies and change in response to success or failures (Duiven, Per. Comm.); by participating in regional boards - by conducting their own studies and comparing them with DFO information - working from the *Delgam Uukw* decision

As mentioned in previous chapters, the Gitxsan have the leading case on Aboriginal land rights in British Columbia. Since 1984, they have been involved in a court case, *Delgam Uukw*, to assert their rights and ownership of their land and its resources. From May 11, 1987 until June 30, 1990, the trial took place with Hereditary Chiefs and elders taking the stand to testify in their language about their distinctive culture and relationship with the land. The trial judge refused to admit or gave no independent weight to these oral histories. In March 1991, the judge released his ruling declaring that any Aboriginal rights held by the Gitxsan or Wet'suwet'en were extinguished by the colonial Government of B.C. In 1993, the B.C. Court of Appeal overturned the decision on extinguishment, stating that consultation has to take place before the government approves any activity that may affect Gitxsan or Wet'suwet'en Aboriginal rights. This court still held that the Gitxsan and Wet'suwet'en did not have ownership or jurisdiction on their land (Gitxsan Treaty Office 1996).

The Gitxsan signed a framework agreement under the B.C. treaty process on July 13, 1995. They encountered a major problem with the B.C. government as it does not recognize Aboriginal title and insists on a land selection model as the only solution to treaty negotiations (Gitxsan Treaty Office 1997). Aboriginal title encompasses the right to exclusive use and occupation of the land held pursuant to that title for a variety of purposes, which need not be aspects of those Aboriginal practices, customs and traditions which are integral to distinctive Aboriginal cultures (Supreme Court of Canada 1997). The land selection model means First Nations must choose a few pieces of their traditional territory over which they can have most of the control. The Gitxsan rejected the land selection model in favour of a joint

jurisdictional approach with the provincial and federal governments. The province suspended treaty negotiations in February 1996, refusing to accept this alternative and choosing to go the Supreme Court route (Gitxsan Treaty Office 1997).

The Supreme Court of Canada heard the appeal of the *Delgam Uukw* land title action in June 1997. On December 11th, 1997, the Supreme Court of Canada confirmed that aboriginal people still have title to their land if they have not surrendered it in treaties, and that they have the right to exclusive use and occupation of the land. This, combined with the *Sparrow* decision and other court cases, has already proven Aboriginal rights to the fishery resource. Are treaty agreements necessary to conduct a successful and legally binding fisheries co-management arrangement? How would a treaty improve the Gitxsan management approach (Duiven, Per. Comm.)? *Delgam Uukw* has provided legally defined management rights for First Nations. This opens the door for more creative ways to implement fisheries co-management.

The Nisga'a First Nation's approach to fisheries management contrasts dramatically with the Gitxsan. The Nisga'a have reached an agreement-in-principle with both the Federal and Provincial governments under the previous comprehensive claim policy. What fisheries provisions does it have? Has it built on experiences from earlier claim agreements? Is its fishery based on a traditional system from which to build a successful co-management regime?

5.2.2 Nisga'a First Nation's Agreement-In-Principle (AIP)

The Nisga'a population is approximately 5,500. They live in four communities located along the Nass River valley in northwestern British Columbia. On February 15th 1996, the

Nisga'a Agreement-in-Principle (AIP) was jointly signed by the Federal government, the Provincial government and the Nisga'a First Nation. It is believed that this AIP provides a substantial base for the final agreement that will conclude almost 100 years of negotiations to settle this claim. Their settlement land consists of 1,930 square kilometres in the Nass River watershed. The Nisga'a hope that the final agreement will provide enough resources that they can rebuild and restore their lands and become self sufficient participants and contributors to Canadian society. They want to replace dependency with mutual respect, and colonialism with recognition of Nisga'a sovereignty (Gosnell 1996). The establishment of the Nisga'a Central Government (NCG) may help them achieve their goal.

Key points concerning fisheries in the Nisga'a AIP are:

- there will be reasonable public access to Nisga'a Lands for non-commercial and recreational uses including hunting and fishing;
- existing legal interests on Nisga'a Lands will continue on their current terms - including rights of way, angling and guide outfitter licences, and traplines;
- the conservation of fish stocks will be the primary consideration - establishment of a $13 million Lisims Fisheries Conservation Trust to provide a means to safeguard the long-term survival of Nass area fish resources for all users, and ensure the participation of Nisga'a in fisheries management programs;
- Salmon Harvest has two components: 1) treaty entitlement of Nass and area salmon stocks, and 2) a supplemental harvest. The supplemental harvest is negotiated through a separate agreement. It is not a commercial entitlement and is separate from the treaty's constitutional protection. It will provide fish for food as well as some commercial opportunities.
- Nisga'a entitlements will be held communally and may not be alienated; and

- the Minister will be ultimately responsible for fisheries and fisheries habitat.

(MacKenzie 1996:7-8; Nisga'a AIP 1996)

In the meantime, the Nisga'a have an AFS agreement with the Federal government concerning their fisheries and its management. The Nisga'a AFS began in 1992, with a second multiyear program being established in 1994. These agreements created a Joint Technical Committee (JTC) consisting of two representatives from DFO and two from the Nisga'a Tribal Council. Each party designates a co-chair who is responsible for scheduling and informing representatives about meetings. The positions are for a one year term with reappointment permissible. The JTC was created to oversee the implementation of the AFS's projects and to prepare all necessary reports required by the AFS. Its objectives include the prioritization of projects, identifying policy issues for resolution, discussion of fisheries concerns and agreement on measures to respond, and to seek input from other parties on fisheries issues (DFO & the Nisga'a Tribal Council 1994). The operation of the JTC is subject to final decision making authority of the Minister. Some of the projects the Nisga'a are involved in are catch monitoring (Aboriginal food fish & sport fishing), stock assessment, escapement monitoring and sampling, developing the use of fishwheels, habitat assessments, and an Excess to Salmon Spawning Requirement (ESSR) harvest (DFO & the Nisga'a Tribal Council 1994).

Once their Final Agreement is signed, managing Nisga'a fisheries in Nisga'a traditional territory will be largely the responsibility of the Nisga'a Central Government (NCG), a Joint Fisheries Management Committee (JFMC), and the yearly implementation of a Nisga'a fishing

plan. The Nisga'a land settlement is only 1,930 square kilometres but the resources section of the agreement applies to the whole Nass River watershed (Gould, Per. Comm.).

When discussing fisheries, the AIP does not distinguish between the NCG elected government or an NCG agency responsible for this resource's management. It seems to read that the NCG, in general, will be responsible for fisheries and will make regulations in such matters as allocation of their entitlement of salmon and non-salmon stocks; establish licencing requirements and their administration; monitor harvesters and duly authorized agents, contractors, and licenses; the disposition of harvested fish; and designate and document vessels which will conduct harvests for sale (Nisga'a AIP 1996). This focus on fish harvesting may hinder a successful co-management arrangement. Fisheries management capacity with supporting institutions still need to be outlined. The Final Agreement, when settled, may disclose the management provisions for Nisga'a fisheries in more detail.

The Nisga'a AIP does outline a Joint Fisheries Management Committee (JFMC) that will be established to facilitate cooperative planning and conduct of Nisga'a fisheries and enhancement activities in the Nass area. The JFMC will be made up of 6 members (2 Nisga'a, 2 Federal, 2 Provincial) jointly responsible for Nisga'a fisheries planning and implementation. In a case where provincial fisheries are involved, the members of the JFMC representing the NCG and British Columbia would be responsible for making recommendations to the Provincial Minister (Nisga'a AIP 1996). This body will be responsible for sharing information and plans for existing and proposed fisheries which could affect Nisga'a fisheries, arranging for collection and exchange of data required for the fisheries provisions of the Final Agreement, and giving advice

and making recommendations to the Minister of Fisheries and the Nisga'a Central Government on various issues outlined in the management functions section below.

The Nisga'a annual fishing plans for harvest, and where applicable sale of species, will be the main management and enforcement tool (Gould, Per. Comm.). They include provisions for location, timing and method of harvest; fishery monitoring plans; stock assessment and enhancement plans; terms and conditions for sale; and harvests by others of Nisga'a entitlements. The NCG will propose annual fishing plans consistent with their harvest allocations for each species and identify management concerns and Nisga'a preferences for harvest allocations, methods and times. The fishing plan will then be forwarded to the JFMC for review. The JFMC will make adjustments as are necessary to integrate the Nisga'a fisheries with other resource conservation and harvesting plans. The JFMC will recommend a Nisga'a annual fishing plan on a timely basis to both the Minister and the NCG. Once accepted, the fishing plan is legally enforceable (Wagner, Per. Comm.). Table 12 summarizes the fisheries management functions carried out through Nisga'a AIP by the Nisga'a Central Government (NCG) and the Joint Fisheries Management Committee (JFMC).

Table 12 Fisheries Management Functions to be Carried out Through the Nisga'a AIP

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education	- the JFMC arranges for collection and exchange of data, they review Nisga'a annual fishing plans, make recommendations to NCG and the Minister on conservation needs and management of resources
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks	- Nisga'a annual fishing plans set out enhancement plans; the JFMC recommends on salmon surpluses and salmon enhancement projects

Compliance with Rules	enforcing and implementing rules	- the NCG ensures their citizens, agents, contractors, etc. comply with the provisions of the Nisga'a annual fishing plan; the NCG may enter agreements with Canada or B.C. concerning the enforcement of fisheries
Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring	- the JFMC provides advice concerning escapement goals and in-season adjustments to fishing plans; Nisga'a annual fishing plans will set out stock assessment plans, and harvest location, timing and methods to be used; the NCG designate and document their harvesters, deposition of harvested fish, designation of vessels
Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest	- the NCG allocate their entitlement among their citizens and others; AIP outlines the calculation to be made for salmon harvest entitlements; the JFMC provides advice respecting the determination of basic Nisga'a entitlements for Nass non-salmon species; supplemental harvest agreements to be signed yearly outside of the final agreement
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities	- the JFMC share information for existing and proposed fisheries which could affect Nisga'a fisheries; Canada will consult with the NCG with respect to the formulation of Canada's position in relation to international discussions or negotiations which may affect their fisheries resources; should either the Federal or Provincial government establish other advisory boards in the area, the NCG's participation may be provided for
Returning Optimum Value to Fishers	maximizing benefits through: supply management, quality enhancement, and product diversity	- Nisga'a entitlements and surplus salmon may be sold by Nisga'a citizens under conditions set out by the NCG and the fishing plans; the NCG will not establish a new processing facility capable of more than 2,000 tons of round weight of fish within 8 years of the Final Agreement

(Nisga'a AIP 1996)

Management functions have been described at the Nisga'a government level making it extremely difficult to ascertain if they will be implemented and operated effectively. One would hope to see more direct involvement by communities and the NCG responsibilities broken down further. An organization should be created to implement the whole agreement and sub-

committees developed to deal with specific fishery requirements (e.g. enforcement, technical requirements). An evaluation of the Nisga'a AIP in relation to the criteria developed by McDaniels, et. al is presented in Table 13.

The Nisga'a AIP had three weaknesses. Their fulfillment of the criteria was treated at best as moderate because the final agreement is not yet signed. The JFMC and the annual fishing plans seem like a great idea but there are too many unknowns that will depend on the final agreement and implementation. Weaknesses of the AIP included improving habitat, taking other Aboriginal interests into consideration, and improving opportunities for learning. There was no mention of habitat in the agreement, just as there was no mention of consulting with other First Nations in the watershed about fisheries activities. Opportunities for learning seemed unlikely with consultants carrying out research and no mention of traditional knowledge studies.

The Nisga'a have been involved in the AFS since 1992. This involvement helped to provide the fisheries component of the AIP. Through the AFS, First Nations know what is involved in fisheries management from a government perspective and negotiations can take place on the same level of understanding (Zealand, Per. Comm.). The fisheries provisions of the AIP also have a strong harvest orientation. Pages and pages were devoted to outlining steelhead and salmon harvest procedures. It seemed as though the AIP was coming from a commercial exploitation push, not from an "improving management" of the fishery push. Again, the AIP still needs to be written as a final agreement to fully comment on the proposed co-management arrangement.

Table 13 Evaluation of the Nisga'a AIP

Improving Habitat	Monitoring habitat Enhancing/restoring habitat Protecting habitat against other harmful uses	Weak None Moderate*	- the productive capacity of various tributaries in the Nass will be monitored - not specifically mentioned in the AIP in regards to fisheries - the AIP allows the NCG to make laws and participate in environmental assessments and environmental protection
Improving Stock Health	Improving stock diversity Improving stock abundance	Moderate* Moderate*	- the JFMC provides advice on escapement goals and adjusts fishing plans in-season when required; Nisga'a fishing plans set out stock assessment plans and harvest requirements - the JFMC and Nisga'a fishing plans recommend enhancement activities and harvest methods to be used
Improving Community Economic Well-being	From fisheries harvest and processing From fisheries management	Moderate* Moderate*	- government funding and support will be provided to the NCG to enable it to increase its capacity (licences or vessels) in the coast-wide commercial fishery; Nisga'a entitlements and surplus salmon may be sold under the direction of the NCG - the creation of annual Nisga'a fishing plans; entitlements and disposition of harvest is outlined in the AIP
Improving Equity	For Aboriginal interests Among Aboriginal groups For future generations	Moderate* Weak Moderate*	- the establishment of the Nisga'a Central Government (NCG) and the JFMC - the NCG has reps. from all four villages and the three urban locals; do not consider any other Aboriginal interests in the Nass River (e.g. Tsimshian, Gitxsan, Gitanyow) - the NCG will be created and the Lisims Fisheries Conservation Trust provides a financial base to work from
Improving Trust and Cooperation	Among all users Between First Nations and DFO	Moderate* Moderate*	- the creation of the annual Nisga'a fishing plans - working from an AFS; the establishment of the JFMC and annual Nisga'a fishing plans
Improving Community Involvement	Using local knowledge Using local protection Using local decisions	Moderate* Moderate* Moderate*	- the NCG create the annual Nisga'a fishing plans; previous AFS experience - the NCG is to ensure that fishers comply with their annual fishing plans; the NCG can enter into agreements concerning enforcement - the NCG develops the fishing plans and forwards them to the JFMC; no mention of direct community involvement in fisheries management
Improving Opportunities for Learning	About fisheries About science About First Nations rights	Moderate* Weak Moderate*	- through revision of annual fishing plans and input of JFMC - Nisga'a have carried out previous studies under the AFS; unsure of traditional knowledge content; depend heavily on consulting firm (Duiven, Per. Comm.) - will be the job of the NCG; unsure of how effective they will be

* potential exists to be realized through implementation

Over the last two years, negotiators have been working toward a final agreement for the Nisga'a and hoped to have that agreement signed by now. The status of the Nisga'a negotiations have been thrown "up-in-the-air" by the *Delgam Uukw* decision. The court greatly strengthened First Nations' position in negotiations as the *Delgam Uukw* decision confirmed that aboriginal people still have title to their land if they have not surrendered it in treaties, and that they have the right to exclusive use and occupation of the land (Vancouver Sun 1998). It would be no surprise to learn that some Nisga'a, who thought from the beginning they were getting too little land, are pressuring their leaders to hold out for more in light of this court decision on Aboriginal title. Another threat to the Nisga'a final agreement through the 1996 AIP is the Gitxsan from Gitanyow, who have an overlapping claim, have filed an injunction against the Nisga'a AIP (Duiven, Per. Comm.).

The Gitxsan First Nation used the AFS in conjunction with their traditional institutions to increase their involvement in fisheries management. The Nisga'a First Nation built the fisheries provisions of their AIP from their involvement in the AFS. How has the Tahltan First Nation developed their involvement in fisheries management? What role does the AFS play? Where can improvements be made?

5.2.3 The Tahltan First Nation's AFS Agreement

The Tahltan are the only First Nation in the Stikine watershed with approximately 3,000 members. The Stikine is an international river which flows from headwaters in north-central British Columbia for 1,040 kilometers in a wide northwesterly arc to its mouth in southeast Alaska (Wrangell). This river drains a watershed of 52,000 square-

kilometres (Alaska Geographic 1979). Telegraph Creek, the only town along the Stikine, is on the north bank of the river about 416 km upstream from Wrangell, Alaska (Figure 2).

The groups interested in fisheries management in the Stikine watershed are the Alaska Department of Fish and Game; the Canada Department of Fisheries and Oceans; the B.C. government; non-aboriginal and aboriginal commercial fishers; sport fishers; the Tahltan First Nation and Iskut Band; and the Friends of the Stikine. Stikine River salmon are harvested by U.S. gillnet, troll and sport fisheries in Alaska, by Canadian commercial gillnet fisheries located in the lower and upper Stikine River, and by Canadian aboriginal and sport fisheries in the Upper portion of the river. The U.S.-Canada transboundary issue does pose some difficulties but this area can be addressed quite effectively through a co-management process.

The Tahltan First Nation has been involved with fisheries management activities within the Stikine watershed since 1987. Before the AFS, the Tahltan Tribal Council held contracts with environmental firms to carry out biological studies on fish and participated in a number of Canada Employment and Immigration (Manpower) programs which linked funding with the Department of Indian and Northern Development (e.g. Innovations, an employment and training program). Five Tahltans were trained as fisheries technicians between 1985-86 through these training programs (Frocklage, Per. Comm.). Any involvement with DFO was by direct contract or directly hiring an aboriginal person (Burdek, Per. Comm.).

The Aboriginal Fisheries Strategy began for the Tahltan First Nation in 1992 with the Tahltan Tribal Council working with DFO from 1992-1994. The Tahltans were one of

the first First Nations to initiate AFS negotiations in the area (Etzerza, Per. Comm.). The 1992 agreement was classified as a "working agreement" which established statements of intent, from both DFO and the Tahltans, to enter into cooperative fisheries management on the Stikine river. It was a very small agreement that was expanded on the next year. In 1993, separate agreements were negotiated in areas such as fish allocation, fish management, monetary contributions, and the guardian program. In 1994, these agreements were brought together under an all encompassing "Fishery Agreement" where specific projects were developed and further details added (e.g. reporting requirements; Burdek, Per. Comm.).

In 1995, the Tahltan First Nation signed their first multi-year fishery agreement for 1995-1999, to be amended on an annual basis for funding, projects, fish allocations, and ESSR harvests. This was a difficult year as the Tahltan Tribal Council was disbanded and the Band Councils had to negotiate their continued participation in the AFS separately. The present Tahltan/Iskut AFS program that has resulted is now administered out of both Telegraph Creek (Tahltan Band Council) and Iskut (Iskut Band Council). At the operational level, the two fisheries programs work together and can be collectively referred to as the Tahltan Fisheries Program. Table 14 summarizes the fisheries management functions carried out by the Tahltan First Nation.

Table 14 Fisheries Management Functions Carried out by the Tahltan First Nation

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education	- yearly meetings/negotiations with DFO concerning new projects and last year's results; community newsletters; open door policy for community comments and concerns; traditional knowledge projects
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks	- enhancement of Tahltan and Tuya Lakes; habitat restoration on the Hackett River to Kennicott Lake for returning salmon; technicians taking a streamkeepers course to begin habitat monitoring; incubation box program
Compliance with Rules	enforcing and implementing rules	- DFO officers; the Band Council has signed an enforcement protocol agreement with DFO
Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring	- stock assessment projects on the mainstem of the Stikine and four of its tributaries; harvest monitoring in Telegraph area; annual aerial surveys of coho and sockeye
Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest	- allocation was set from a historical study; licences designated to members by Tahltan Fisheries Dept.; other FN wanting to fish in the area have to get permission from the Tahltan Band Council
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities	- Tahltan Fisheries personnel attend meetings to exchange information, and discuss concerns in various forums: 1) Stikine - Tahltan Co-management Committee Meeting (consists of all users on the Stikine), 2) Transboundary Technical Meetings - Alaska Department of Fish & Game, 3) B.C. Parks, 4) Taku River Tlingit, and 5) Local Resource Management Planning (Iskut-Stikine LRMP meetings)
Returning Optimum Value to Fishers	maximizing benefits through: supply management, quality enhancement, and product diversity	- ESSR harvests; working to improve the management and performance of the lower river commercial fishery; feasibility studies have been conducted on a processing plant in the Telegraph Creek area; Huley Lakes has the potential for fish rearing

The significance of the AFS to the Tahltan First Nation is that it has brought fisheries management to the Band Councils. Instead of just participating in studies by other firms, they can prioritize their fishery concerns in the Stikine watershed and work with government to address them. Each Band Council has its "Fishery Coordinator(s)" who is responsible for running the various projects and hiring local personnel to carry out the duties. The projects undertaken are negotiated on a yearly basis in eight areas: 1) negotiation of fisheries management, 2) management of aboriginal fishing, 3) habitat restoration, 4) fish enhancement, 5) community-based research, 6) training, 7) economic development, and 8) stakeholder consultation.

Under the 1996-97 Tahltan/Iskut Agreement, projects carried out by the Tahltan Fisheries Department (Tahltan Band Council) included beaver dam removal on the Hackett River, a Tahltan Lake Excess Salmon to Spawning Requirement (ESSR) fish harvest, a Tuya River test fishery, a stock assessment and sampling program out of Telegraph Creek, training programs (e.g. first aid, fire arm safety), community awareness through a bi-weekly newsletter of the activities carried out by the Tahltan Fisheries Program, and a traditional knowledge project. An evaluation of the Tahltan First Nation's AFS in relation to the criteria developed by McDaniels, et al. is presented in Table 15.

The Tahltan AFS has two strengths and two weaknesses. Their strengths lie in conducting studies to improve stock health and improving community economic well-being by bringing fisheries management activities to the Tahltan First Nation. Before the AFS, the Tahltan people had participated in contract biological studies with environmental agencies and DFO. Now, the Tahltan Fisheries Program is training local people "on-the-job" to collect data, employing fishers in ESSR harvests, and the

Table 15 Evaluation of the Tahltan Aboriginal Fisheries Strategy

Improving Habitat	Monitoring habitat	Moderate	- through Kennicott Lake & Shakes Creek projects; streamkeepers training; with DFO at Tahltan lake
	Enhancing/restoring habitat	Weak	- on a limited basis through AFS projects; trying to attain more funding
	Protecting habitat against other harmful uses	Weak	- Band Councils try to monitor mining companies' activities
Improving Stock Health	Improving stock diversity	Strong	- monitoring programs; chinook tagging programs; biological contracts
	Improving stock abundance	Strong	- involvement in enhancement projects, aerial surveys, sampling programs
Improving Community Economic Well-being	From fisheries harvest and processing	Moderate	- ESSR put money back into the Fisheries Department; employ from 6-20 people; aboriginal commercial fishery on the Lower Stikine has fallen apart
	From fisheries management	Strong	- educating the community on available opportunities; direct employment in the Fisheries Dept.(6-10 people)
Improving Equity	For Aboriginal interests	Moderate	- participation in the Transboundary Technical Committee; meet with other stakeholders; successful years working with the AFS program
	Among Aboriginal groups	Moderate	- Iskut & Tahltan work together; building relations with Tlingit, Lake Babine and Gitxsan to discuss common problems and preferred solutions
	For future generations	Weak	- internal cooperation is needed; necessary for Band Councils to take the time to understand the AFS and to build on what they already have
Improving Trust and Cooperation	Among all users	Moderate	- all party meetings and the limited sharing of information has improved relations but there is much work still to be done
	Between First Nations and DFO	Moderate	- employees of the Tahltan Fisheries Program cooperate regularly with DFO and the level of trust has increased; this trust is not reflected as much at the Band Council level
Improving Community Involvement	Using local knowledge	Moderate	- have conducted a traditional knowledge study; employment of local people in the field
	Using local protection	Moderate	- enforcement protocol recently signed; ensure fishers report catches
	Using local decisions	Moderate	- Tahltan Fisheries seeking advice from the community; involvement of Tahltan Fisheries' Program personnel; advice given by Council
Improving Opportunities for Learning	About fisheries	Moderate	- participation in technical aspects; need more individuals trained as fishery technicians
	About science	Weak	- need to develop statistical expertise to deal with DFO calculations
	About First Nations rights	Weak	- need more discussion with other First Nations to advance their participation in fisheries management

community is able to physically see, and comment on, the activities that this fisheries program conducts. Improving habitat and building for future generations (equity) are the weaknesses. More trained individuals (e.g. fisheries biology, stream dynamics, local history and local phenomenon) and funding would help counteract the weakness in habitat studies. To build for future generations, an improved understanding of the AFS and where to seek improvements would solidify and increase this First Nation's involvement in fisheries management. The Tahltans are looking to develop a proactive strategy and to move forward from the AFS. Some ideas include: increasing involvement in the lower Stikine's commercial fishing activities and pushing their Aboriginal interest in transboundary issues on the Stikine (they want to be classified as a member of the Transboundary Technical Committee, not just a guest). To do this they will need to move forward from the community level. Recommendations will be outlined in chapter 7.

5.2.4 Skeena Watershed Committee

The Skeena Watershed Committee has been included in the study to provide yet another view of fisheries co-management agreements in British Columbia. So far we have examined a traditional system combined with an AFS agreement, an AFS agreement built into an AIP, and a fisheries co-management arrangement based strictly on the AFS. This agreement is an example of a multi-party watershed co-management agreement. It is realized that both individual AFS agreements and prospective treaty co-management regimes in B.C. would have to be linked to local committees, regional boards, and provincial strategies to be effective at the larger scale.

Fisheries management on the Skeena River is a complex and sensitive issue. The Skeena is a 300 kilometre long river with a 44,000 square kilometre area. It houses three urban centres and a dozen small dispersed communities. For at least a decade there have been two basic allocation conflicts on the Skeena: 1) between the commercial fishers at the mouth of the river and sport fishers upriver; and 2) between commercial fishers at the mouth of the river and First Nations who assert a right to harvest commercially upriver (Pinkerton & Weintstein 1995). The immediate problem which precipitated the formation of the Skeena Watershed Committee was three consecutive years (1989-1991) of poor steelhead stocks, along with other small stocks, and the fear that they might be on the verge of a collapse.

The Skeena Watershed Committee (SWC), a multi-party planning body, was formed in 1992 to address these conflicts and broader fisheries issues of mutual concern to local First Nations, commercial fishers, sport fishers, and federal and provincial agencies charged with fisheries management responsibility on the Skeena River (Pinkerton 1996:51). The purpose of the SWC was to foster communication and cooperation among parties in order to conserve, protect and rebuild the salmonid resources of the Skeena watershed. The founding principles stressed that fisheries management problems in the watershed required "made in the north" solutions that accurately reflected resource conservation and the well-being of individual residents and communities. The SWC is striving for a sustainable fishery through integrated resource management. It recognizes the rights of aboriginal people, and the rights of all other parties with an interest in the resource (DFO, et al.1992). These rights are informal, as

formalization would create complexities on federal and provincial mandates and possible Aboriginal claims (Pinkerton & Weinstein 1995).

The committee is composed of four members from each of the three sectors (aboriginal, commercial, and sport) and two members from each level of government (federal and provincial). The specific groups involved are the Skeena Fisheries Commission (First Nations), the North Coast Advisory Board (commercial), the North Coast Co-management Committee of the Sport Fish Advisory Board (sport), the Ministry of Environment, Lands and Parks (B.C. government), and the Department of Fisheries and Oceans (Federal government). The SWC operates by consensus with each party having at least two members present when decisions are made or actions are taken. Information and technical systems are shared freely with community input through public meetings, symposia and other methods deemed suitable (DFO, et al. 1992). The SWC will continue to function until one Party notifies the other Parties of its intention to terminate.

Meetings in the first two years broke the ice, but failed to set up a viable consensus process. It was not until 1994 that an independent mediator was hired and real progress was made. The sport sector dropped its aggressive stance, the commercial sector came back on-line, and funding was secured resulting in the development of a fish management plan. The management plan outlined agreements on joint research, data sharing, joint enforcement, and the consideration of joint enhancement (Pinkerton & Weinstein 1995). A fisheries management protocol was agreed to and in-season management guidelines were established for the next three years. A computer model created by the provincial and federal government was a useful aid in developing harvest

scenarios for discussion in SWC meetings. Both levels of government supply research findings and conduct in-season consultations with the parties. Table 16 summarizes the fisheries management functions carried out through the Skeena Watershed Committee (SWC).

Table 16 Fisheries Management Functions of the SWC

Policy Making and Evaluation	scoping problems, setting long-term objectives, research and education	- the SWC came together to work out the dimensions of the problem – reduced harvest rates to provide for more sustainable fisheries; finding an objective that everyone could agree to; developed a framework on how to alter DFO time and area closures; the SWC sponsors and co-ordinates any initiative in the watershed related to fish
Ensuring the Productive Capacity of the Resource	monitoring habitat, enhancing/restoring habitat, enhancing stocks	- the SWC is the body through which all proposals and projects of this nature flow
Compliance with Rules	enforcing and implementing rules	- DFO carries out enforcement but there was talk about a possible role for the SWC
Regulating Fishery Harvest	stock assessment, harvest planning, harvest monitoring	- the SWC advises on federal/provincial research programs; catch sampling through an observer program; the SWC has a technical review subcommittee; members from the SWC worked with the government's stock model to generate new options for area and time closures for the commercial sector; harvest plans for the other sectors will be developed; participants in the SWC agreed to a vessel monitoring program
Regulating Fishery Access	membership or exclusion, transfer of membership, allocation of harvest	This function is not performed.
Resource Use Coordination	coordinating uses and management of 1) sport, commercial and subsistence activities, and 2) harvest and enhancement activities	- First Nation food fish priority is recognized; involvement of the commercial sector is crucial; all parties are involved in this management body

Returning Optimum Value to Fishers	maximizing benefits through supply management, quality enhancement, and product diversity	- the SWC is trying to maintain the product diversity by adapting each group's fishing methods, areas and timing

(Pinkerton & Weinstein 1995)

In 1991, the concept of bringing all the sectors and government together in this type of committee was almost inconceivable. Each party had been "out for themselves" and became warring factions in the fishery (Pinkerton & Weinstien 1995:57). If joint planning can be done on the Skeena, at its level of complexity, it should be possible to resolve less complex conflicts and create co-management systems elsewhere. The Skeena Watershed Committee has been praised in the provincial government for what it has accomplished and has been held up as a model to follow (Government of B.C. 1996). An evaluation of the SWC in relation to the criteria developed by McDaniels, et al. is presented in Table 17.

Unfortunately, the Skeena Watershed Committee was dissolved in March 1997 when the commercial sector decided to pull out. The commercial sector did not feel that their concerns were being addressed through the SWC. Reasons given by the commercial sector for termination include: other user groups have a veto power over their fishing plans; an allocation issue was being disguised as a conservation issue; and they did not like DFO's interest in expanding the process to include other fishing areas (Radford, Per. Comm.).

The Skeena Watershed Committee has strengths in four areas. In the criteria of equity and community involvement, there is both a strength and weakness. The equity issue concerns the commercial fishers' unstable presence, making co-management

Table 17 Evaluation of the Skeena Watershed Committee

Improving Habitat	Monitoring habitat	Moderate	-there is concern for the whole watershed but each sector is most interested in specific habitats (e.g. Sports - steelhead spawning grounds); more information is needed
	Enhancing/restoring habitat	Moderate	- the SWC is the body through which all proposals and projects of this nature flow
	Protecting habitat against other harmful uses	Moderate	- the SWC is supplemented by other organizations to protect the river (e.g. Rivers Defence Coalition)
Improving Stock Health	Improving stock diversity Improving stock abundance	Strong Moderate	- the SWC mission is to conserve, protect and rebuild the salmonid resources of the Skeena River; stress on selective fishing methods; stock assessment programs are being carried out; more data is needed
Improving Community Economic Well-being	From fisheries harvest and processing	Strong	- trying to adapt each group's fishing methods, areas, and timing to maintain product diversity; there are ESSR harvests on the Skeena
	From fisheries management	Moderate	- the commercial sector has developed a harvest plan; each of the other sectors will develop a harvest plan as well
Improving Equity	For Aboriginal interests	Strong	- the right of First Nation people to the resource is recognized
	Among Aboriginal groups	Strong	- all the First Nations in the Skeena watershed participate in the SWC through the Skeena Fisheries Commission
	For future generations	Weak	- this is the first step in coordinating uses in this area; more work needs to be done to ensure co-management is maintained
Improving Trust and Cooperation	Among all users	Moderate	- this is why the SWC was established; the commercial sector does not completely trust the set-up
	Between First Nations and DFO	Strong	- this is achieved through the Skeena Fisheries Commission
Improving Community Involvement	Using local knowledge	Strong	- the SWC uses "made in the north" solutions to reflect resource conservation and the well being of communities
	Using local protection	Weak	- local protection is being discussed (SWC's role)
	Using local decisions	Strong	- decisions through this committee are made at the local level
Improving Opportunities for Learning	About fisheries About science	Strong Strong	- the SWC is learning by doing on all fronts; they are trying to keep options open
	About First Nations rights	Strong	- the Skeena Fisheries Commission will push this issue

difficult. The community involvement weakness is related to the enforcement issue. The SWC has been very successful in bringing groups together, pushing for selective fishing methods, and developing harvest plans. The set-up of the committee was effective, proving all parties can gain from co-management in the watershed. By working on the weaknesses identified, it may be possible to bring the committee back on line.

There is no indication of when or if the SWC may come back together. Following the breakdown, B.C. Ministry of Environment, Lands and Parks and DFO worked with the stakeholders to come up with a fishing plan for the 1997 season in the absence of a consensus process. The governments are continuing to act as intermediaries, hopeful that this setback is just a stage in the committee's evolution to a workable organization in the long term (Government of B.C. 1997). Meetings are occurring between the interests and pilot projects are on the table to try and bring the committee back together (Duiven, Per. Comm.).

5.3 Summary

Through an examination of these seven cases (three comprehensive claims, three B.C. First Nations arrangements and the Skeena Watershed Committee), it was found that claims based-co-management is not necessarily the best arrangement. To strive for the best fisheries co-management arrangement possible, it would be advantageous to model the arrangement after the Gitxsan First Nation's approach. It is based on their traditional House Chief authority, they initiated their own biological studies of the fisheries, developed selective fishing methods, and are involved on a regional level. The fisheries provisions in each of the claims were treated differently, reflecting local conditions.

Claims-based co-management arrangements were good at defining Aboriginal rights and creating a co-management structure and management body but they are, for the most part, government-type institutional settings with implementation barriers to overcome. The Inuvialuit Final Agreement was the strongest claim-based arrangement, experience being the greatest teacher.

The B.C. arrangements all involved AFS agreements in some form. The Gitxsan have incorporated the AFS into their management system, the Nisga'a have based their AIP on their experiences with the AFS, the AFS brought fisheries management to the Tahltan First Nation, and the Skeena Fisheries Commission, the body that organizes all the AFS programs on the Skeena, participates as a partner in the SWC. Chapter 6 contains summary charts and a discussion of the case studies in relation to the seven specific criteria developed by McDaniels, Healey & Paisley.

6

The Comparative Analysis

This chapter illustrates the information compiled in the evaluative framework given in the last chapter. A summary chart is used to compare the fisheries agreements and provide the basis for a discussion of their strengths and weaknesses (Table 18). The following discussion has been organized by the seven criteria developed by McDaniels, Healey & Paisley: improving habitat, improving stock health, improving community economic well-being, improving equity, improving trust and cooperation, improving community involvement, and improving opportunities for learning. The evaluation of these seven criteria has highlighted areas that are operating effectively and those that need attention. By using this framework, enhancements can be made to those arrangements that are working well and assistance can be given to ineffective arrangements (Pinkerton & Weinstein 1995). The agreements have also been examined by their use of vision, process, implementation and monitoring to add to understanding of why some of the agreements are more successful than the others. This is followed by a discussion of important lessons learned.

Table 18 Summary Chart of Agreements Strengths and Weaknesses (S- Strength, W-Weakness)

	Inuvialuit Final Agreement (IFA)	Yukon Umbrella Final Agreement (UFA)	Nunavut Land Claims Agreement (NLCA)
Improving Habitat	- the FJMC monitors habitat as it sees fit; can refer matters to the Environmental Impact Screening & Review Board for impact assessment W- lack of a proactive strategy - once habitat has been identified or affected, there is no mention of protocol to enhance &/or restore the habitat	- the YSC is in charge of salmon habitat W- unclear as to what work has been done in this area by the YSC; when information is needed by the YSC, consultants carry out studies and write reports	- enhancing and restoring habitat is not directly mentioned in the agreement S- the NWMB identifies zones of high productivity; the NWMB directly advises other departments about mitigation measures
Improving Stock Health	S- the stocks are being actively managed, working with HTCs on area closures and harvest reductions; with the aid of the HTCs, the FJMC reviews and collects data on fisheries in the region	S- measures put in place to rebuild Yukon Salmon runs; YSC makes recommendations on all salmon management plans, research, policies, and programs	S- the NWMB has a major role in research; the NWMB approves enhancement plans and regulates its activities
Improving Community Economic Well-being	- subject to conservation and quotas, the Inuit can sell, trade or barter fish acquired in the subsistence fisheries S- the government agrees to implement suitable arrangements to accommodate the commercial fishery's special economic and marketing needs	- First Nations have received 26% of commercial salmon licences; they can trade, barter or sell amongst themselves; the YSC can recommend on new opportunities and management measures for commercial salmon uses	S- NLCA objective - to provide an economic basis for self sufficiency; intersettlement trade of fish; the Inuit have preference in the development of economic structures based on harvesting
Improving Equity	S- Inuit have equal representation on all Renewable Resource Committees; the IGC plays a central role; protecting and preserving fish for future generations	- not all First Nations have settled yet S- First Nations have rights to harvest and manage on their settlement land; in their settlement area, they are represented on co-management boards; Trust Fund established to meet UFA's Chapter Sixteen objectives	S- Inuit are the traditional and current users of the fish and wildlife resources with rights flowing from this use; NLCA objective - give the Inuit a strong role in the regulation and management of resources; creation of a new territorial government
Improving Trust & Cooperation	S- there is a climate of confidence, certainty & control	- the RRCs and the YSC ensure public involvement; YSC replacing DFO for management of salmon in Yukon	- the role of the HTOs, RWOs and ultimately the NWMB is still developing W- relations between the NWMB and both levels of government need work
Improving Community Involvement	- HTCs carry out research, make by-laws and forward concerns to the FJMC	- local knowledge to be included; First Nations allocate and regulate quotas in their settlement areas; FN & RRC concerns go to the YSC	- HTOs and RWOs allocate basic needs levels and can develop by-laws S- the NWMB has put the right people in positions of authority; HTOs and RWOs have considerable input into decisions
Improving Opportunities for Learning	- trying to implement HTC by-laws into government regulations S- the FJMC travels to communities to hear concerns; students becoming trained in fisheries biology	- YSC coordinates concerns; FN manage on their own land and co-manage over the settlement area W- consultants and DFO carry out research and studies	- the HTOs and RWOs will be involved in carrying out studies W- traditional knowledge needs to be incorporated better; Govt legislation needs to be reviewed to ensure conformity with the NLCA

Table 18 Continued Summary Chart of Agreements Strengths and Weaknesses (S- Strength, W-Weakness)

	Gitxsan Management Approach	Nisga'a AIP	Tahltan AFS	Skeena Watershed Committee (SWC)
Improving Habitat	S- began their own inventories; work with government and other groups to coordinate their protection efforts	- the NGC will be able to make laws and participate in environmental assessments W- no mention of habitat restoring & enhancing in the AIP	- a few monitoring projects have been carried out and basic training W- more funding needs to be acquired to carry out habitat monitoring, enhancement & restoration	- projects of this nature flow through the SWC; the SWC is supplemented by other organizations to protect the river (e.g. Rivers Defence Coalition)
Improving Stock Health	S- use of selective fishing methods makes their commitment to stock diversity very strong; they have carried out harvest and escapement studies since the 1980s	- Nisga'a fishing plans set out harvest methods, stock assessment plans and enhancement activities; these must be approved by the JFMC	S- the Tahltans participate in a variety of activities to monitor and improve stock abundance and diversity (e.g. tagging programs, aerial surveys, sampling programs)	- stock assessment programs are being carried out; more data is needed S- the SWC's mission is to conserve, protect and rebuild the salmonid resources of the Skeena; stress selective fishing methods
Improving Community Economic Well-being	S-the House Chiefs are responsible for fisheries management; the communities have a high catch per unit effort and low capitalization	- government funding and support to the NCG to increase its capacity in the coast-wide commercial fishery; Nisga'a entitlements and surplus salmon may be sold under the direction of the NCG	- the Lower Stikine commercial fishery needs to be rebuilt; ESSR fisheries provide some funds and employment S- the Tahltan First Nation participates in many fisheries management activities with funding provided by the AFS	- the commercial users have a harvest plan; the other groups need to follow suit S- working at adapting each group's fishing methods, areas and timing to maintain product diversity; ESSR harvests in the mainstem of the Skeena
Improving Equity	S- they excel in this category: authority of House Chiefs is recognized; they participate in Skeena Fisheries Commission; they have achieved great strides with the *Delgam Uukw* decision	- NCG will be established along with the JFMC; trust fund provides a financial base to work from W- do not consider any other Aboriginal interests in the Nass	- Iskut & Tahltan work together and with other stakeholders in the Stikine watershed; starting to build relations with other First Nations to discuss common problems W- necessary for Band Councils to take the time to understand the AFS and to build on what they already have	S- the right First Nations have to the resource is recognized; all Aboriginal interests in the watershed participate through the SFC W - the future of co-management in the watershed is not secure
Improving Trust & Cooperation	S- the GWWA aids in coordinating the Houses and bringing DFO and the Chiefs together	- have had an AFS agreement since 1992; now working from Nisga'a fishing plans	- user relations have improved but there is much work still to be done; level of trust being built at the operational level is not being recognized at the political level	- they took the first step to coordinate the users but now, have to work to bring the commercial interest on line S- the participation of First Nations in the SFC & the SWC have brought them alongside DFO
Improving Community Involvement	S-the Gitxsan run their own studies; thery have trained Aboriginal Fisheries Officers; decisions come from the House Chiefs	- the NGC develops the fishing plans and are to ensure Nisga'a fishers comply; unsure of the level of community involvement in these plans	- traditional knowledge and community input being sought; hiring local people for technician and management positions; enforcement protocol has been signed recently	S- stress "made in north" solutions that fully involve communities; decision making occurs at the local level W- the SWC's role in local protection has not been defined
Improving Opportunities for Learning	S- conduct their own studies and compare them with DFO information; attempt new technologies and adapt; participate on regional boards	- fishing plans will be written yearly to allow for changes W- depend heavily on a consulting firm; unsure of traditional knowledge content	- participate in many technical studies W- need to train more technicians; need to understand the models and statistics involved in stock predictions; fisheries management must become a higher priority at the Band Council level	S- learning is occurring on all fronts and on all levels; the SFC keeps First Nation rights at the forefront

6.1 Improving Habitat

The focus in habitat is on monitoring, enhancement and restoration, and protecting habitat from other harmful uses. Where an agreement is classified as weak, it indicates that habitat improvements were not actively sought. Either there was no mention of it in the agreement or it was not explicitly laid out in the fisheries provisions of the agreement. In the case of the Tahltan First Nation, habitat activities are conducted only when funding and trained staff are available. The Gitxsan and Nunavut agreements had strengths in the habitat criteria. The Gitxsan have conducted their own studies since the 1980s and coordinate with other groups in the watershed in protection efforts. The NLCA specified that the Nunavut Wildlife Management Board (NWMB) identifies productive habitat areas and directly advises other departments on mitigation measures to avoid undue destruction or disturbance of habitat. The potential is there but it will depend on how it plays out operationally. The SWC oversees habitat projects, coordinating research by the three interests involved and other groups in the watershed (e.g. Rivers Defence Coalition).

6.2 Improving Stock Health

The focus in stock health is on the abundance and diversity of species. Most agreements have this as a strong point, contributing in some shape or form to stock assessments, enhancement activities, and stock rebuilding efforts. Stock health is directly influenced at the terminal end (escapement numbers) by the use of selective catching methods and gear. The Gitxsan have pushed for more selective harvest methods since the 1980s. They explored options and adapted to more selective fishing methods to target the

enhanced Babine stocks. Their selective methods have also helped to conserve and rebuild the numerous depressed wild stocks that have been overharvested in the mixed fishery (Pinkerton & Weinstein 1995). The SWC was working to make all groups fish selectively in the Skeena watershed.

6.3 Improving Community Economic Well-being

There are no apparent weaknesses in the agreements on the community economic well-being criteria. At the very least, the agreements provide some jobs in either management positions, technical positions, or in commercial fishery activities. In all cases, subsistence fish have been assured through a form of basic needs assessments. Within the claims agreements, fish for trade, barter or sale from the subsistence fishery is allowed with certain stipulations (e.g. intersettlement trade or with nearby aboriginal groups). In the B.C. agreements, ESSR fisheries are outlined as special harvests offered to First Nations to increase their commercial activities in the fisheries. Once the "tests" set out in *Gladstone* and *Van Der Peet* have been met regarding pre-contact involvement in fish trading, First Nations in B.C. will be able to trade, barter or sell fish they acquire in their subsistence fishery.

The commercial fishery is discussed in many agreements with designs for improvement. For example in the IFA, the government agrees to implement suitable arrangements that will help the Inuvialuit commercial fisheries' special economic and marketing needs. In the Nisga'a AIP, government funding and support is offered to increase this First Nation's capacity in the coast-wide commercial fishery. In the case of the SWC, each group (aboriginal, commercial and sport) was working on adapting their

methods, timing, and areas that they fish to maintain product diversity for the benefit of all users.

6.4 Equity

Equity, in McDaniels, et. al's criteria, focuses on Aboriginal interests. The claim agreements are all strong in this category. These agreements were signed to define Aboriginal rights and further their interests. In the IFA Inuit have the right to representation on management boards. In the UFA First Nations have the right to harvest and manage on their settlement land. In the NLCA beneficiary rights flow from traditional and current use of the resource. After the claims, the Gitxsan have made the greatest strides in equity, their House Chief's authority is recognized, they participate in the SFC (representing all First Nations in the Skeena watershed), and they have received management rights from the *Delgam Uukw* decision. In the agreements discussed here, all of them take other aboriginal groups into consideration and there is a focus on future generations.

The Skeena Watershed Committee recognizes Aboriginal rights throughout the watershed and all five First Nations participate through the Skeena Fisheries Commission. The weakness of the SWC is that co-management of the fisheries resource is not secure in the watershed now that the commercial interests have pulled out. For future generations to be secure, the three interests need to get back to the table. The Nisga'a agreement is weak because it does not mention coordination with any other First Nations in the Nass watershed. In the Tahltan case, participation in fisheries management

needs to be secured for the future by developing a stronger relationship between the fisheries coordinators and the Band Councils.

6.5 Trust and Cooperation

This criterion focuses on trust and cooperation among all users and between aboriginal groups and DFO. Among users the SWC was making the greatest amount of progress until the commercial interests pulled out. The commercial fishers felt their interests were not being represented adequately and that the real reason for reducing catches was so the fish could be allocated to the aboriginal and sport interests. All the other agreements try to accommodate other interests in some shape or form, be it community meetings or participation on RRCs (UFA).

In the relationship between DFO and aboriginal groups, trust has to be earned and built upon. It is not automatically received. The Gitxsan and Inuvialuit (since the 1980s), and the Skeena Fisheries Commission (since the early 1990s) have been able to build this trust through years of experience managing fisheries with DFO. Three of the other agreements are still building on their relationship with DFO while the Nunavut case is having a few problems. As mentioned in chapter five, the Fisheries and Oceans Minister set turbot quotas without respecting the authority of the NWMB. The Federal Court found that the Minister had overstepped his bounds by failing to take into account relevant considerations. An appeal is underway (NRTEE 1998).

6.6 Improving Community Involvement

Co-management requires a central agency/board to organize and oversee activities but these boards are not expected to keep everything at "arms length" from the community (Reed 1994). It is extremely important for communities to be involved on their own terms and not just at the convenience of a board. Questions of importance for this criterion are: Where do the decisions come from? How much does the community know about the organization? and Where do members of the community go with their concerns?

The only apparent weakness in the community involvement criteria is under the Skeena Watershed Committee as it does not have a defined role in watershed enforcement activities. This weakness, when compared to the SWC's strength of bringing decision making to the people of the watershed, has not adversely affected its performance. The SWC is based on "made in north" solutions with decisions made at the community level. The other two agreements with strengths in this area are the NLCA and the Gitxsan. So far the NLCA has knowledgeable local people in positions of authority and the HTOs and RWOs have considerable input into decisions. The continued success of this set-up will depend on its further implementation. The Gitxsan are the group to model after for this criterion. They are organized by their traditional system which is community-based, have run their own biological studies since the 1980s and are involved in local enforcement activities. The rest of the agreements involve the communities to some extent (e.g. conducting research or regulating quotas) but have yet to make the full link in decision making.

6.7 Improving Opportunities for Learning

An adaptive approach explicitly accepts that resource and environmental systems will contain surprises, and the most carefully crafted policies or actions may turn out to be inappropriate. The goal then is to develop policies that can absorb and benefit from change, allowing us to gain knowledge and reduce uncertainty (Holling 1978). In adaptive management, planners and managers are encouraged to approach their work and their decision making with the expectation that they may well be wrong but there are lessons to be learned from mistakes. Mistakes need to be acknowledged and appropriate adjustments made (Mitchell 1997). Failures are inevitable, the key is to learn from them to achieve long-term success.

The Gitxsan are learning on various levels, conducting their fisheries management activities in response to feedback both created (through technical studies) and received (from the fishers, community members, and other groups). The Gitxsan created a fisheries technical training program in the 1980s at Malaspina College, Nanaimo Campus. They continually send participants from the area to attend this course (Duiven, Per. Comm.). On the management level, the Gitxsan coordinate fifty-six Houses and participate on the Skeena Fisheries Commission. The SFC then partakes in Skeena Watershed Committee meetings to share information and learn from other groups. The Skeena Watershed Committee is conducted as a forum for learning with new ideas and plans being put on the table and jointly tested.

The FJMC, of the Inuvialuit agreement, also uses opportunities for learning. They travel to communities to hear concerns and receive feedback on the year's activities. A student mentoring program has also begun to interest students in becoming fisheries

technicians or managers (Bell, Per. Comm.). The other four agreements have to make major improvements in their opportunities for learning criteria. They need to recognize the need for management and technical training to be able to fully partake in fisheries management activities. The Nisga'a and Yukon cases are considered weak because they are dependent on consultants for their information instead of setting up baseline data collection at the community level. Communities need to be involved in the learning process. The Tahltan are in need of more technical training and consistent support and understanding from their Band Council to improve their opportunities for learning. The NLCA objectives, including traditional knowledge incorporation and by-laws from HTOs, still need to be accommodated in government legislation (Arctic Institute of North America & Joint Secretariat 1995).

6.8 Vision, Process, Implementation and Monitoring

Agreements in and of themselves do not do things: people and political will determine events (Doubleday 1989). Before an agreement is produced, a vision is usually created, a process chosen, and a strategy for implementation and monitoring agreed upon. Let us look at how, or if, the agreements have developed vision, process, implementation mechanisms, and monitoring programs.

Sustainability is the vision of choice, but the emphasis within this vision can develop over the years and change with changing conditions. It is there to provide a way to consider how to balance environmental, social and economic matters bringing about discussion of desirable futures. Equity and community involvement are necessary to develop visions that are shared by all. In the case of the claims agreements, broad

statements were given that ranged from providing aboriginal people a stronger role in regulation and management of resources to protecting and preserving resources for future generations. The Nisga'a AIP, Gitxsan management approach and the Skeena Watershed Committee have all stated a vision or focus of some sort or another. The Nisga'a were looking for a way to become self-sufficient, the Gitxsan were working from their House Chief's authority and pushing for selective fishing methods, and the SWC's mission was to conserve, protect and rebuild the salmonid stocks of the Skeena. The Tahltan agreement has worked from year by year negotiations, and a long-term strategic plan still needs to be developed.

A process identifies issues and problems, assembles necessary information and viewpoints, determines alternative solutions and a course of action (Mitchell 1995:286). The process used by all the agreements is co-management, delegating specific powers and roles to local people. Each agreement delegates in a different way, involving different institutions and approaches to decision making. The more experience various groups have in the process, the greater the chance of success. The Gitxsan and Inuvialuit have the most experience and not coincidentally are the best fisheries agreements in this study.

The most critical factor is implementation. Implementation is the move from normative planning (what should be done) to operational planning (what will be done). If there is not the will and ability to implement, then all visions, processes and plans are unlikely to achieve desired changes (Mitchell 1997).

> "We cannot be satisfied with the creation of policy alone. We must force policy makers to address what is necessary to bridge the policy-practice gap... The key ... is to understand that most policy is not self-implementing and requires a conscious effort toward implementation before it will be actually realized in practice" (Somach 1993:22).

The role of individuals is key when implementing an agreement. Committed, creative, and knowledgeable individuals are extremely important at all stages, from developing a vision to monitoring and adapting the process. There are at least nine obstacles to implementation (e.g. lack of means, lack of commitment, access to information) but full discussion of them and their implications to these fisheries agreements are beyond the realm of this thesis. Within the claims agreements, it should be noted that implementation agreements are written after the claims are settled. Implementation should be thought of throughout the vision and process stages to ensure that the product is workable. The AFS agreements were built on the operational level with policy written up after the programs were developed (Duiven, Per. Comm.). Numerous AFS agreements have been successfully implemented in British Columbia, yet no treaties have been signed. Elements of the implementation of this initiative and others can inform the claims processes.

Monitoring is an important component for here we realize what is working and where changes need to be made. This is where the opportunities for learning exist. Are programs regularly reviewed? Problems discussed? Adaptations made when necessary? Has the capacity of the people, community, and government increasing to deal with all aspects of the agreement? The IFA, Gitxsan approach, and the SWC are learning but Table 18 shows that there is still work to be done in the other agreements.

6.9 Summary Lessons

Based on this review of experience in these seven co-management systems, ten important lessons can be extrapolated by the criteria developed by McDaniels, Healey &

Paisley in relation to vision development, product implementation and monitoring mechanisms.

- HABITAT needs to be considered from the outset; explicitly negotiated in terms of fisheries management activities. The Nunavut Land Claims Agreements and the Gitxsan approach to management have done this.
- STOCK HEALTH is directly influenced at the end of the spawning run (escapement) by the use of selective fishing methods and gear. There is a need to move away from mixed fisheries. The Gitxsan approach to management and the Skeena Watershed Committee are actively pursuing selective fisheries.
- COMMUNITY ECONOMIC WELL-BEING is improving with an increase in aboriginal participation in commercial fisheries activities. All of the agreements, both the claim and B.C., have provisions to improve aboriginal long-term community economic opportunities.
- EQUITY for Aboriginal rights is hindered by internal conflict within a First Nation and between First Nations. The Tahltan need to deal with their internal conflict with the Iskut Band. The Nisga'a need to coordinate their fishery with other First Nations on the Nass River.
- TRUST & COOPERATION between users is not inherent. Each user needs to treat other users respectfully. Experience fosters trust and cooperation. The Gitxsan and Inuvialuit have built trust and cooperation through years of experience managing fisheries with DFO and other user groups.
- COMMUNITY INVOLVEMENT is strong if the agreement builds on a traditional system. If not, difficulties will be encountered (e.g. implementation, out right resistance to the system proposed). Communities need to be involved on their own terms and not just at the convenience of the co-management arrangement. The Gitxsan demonstrate a system that has been built up from the community/First Nation level. The claim agreements, with their associated implementation problems, demonstrate systems that have been developed from the top down.

- OPPORTUNITIES FOR LEARNING require acceptance that there will be problems and adequate mechanisms to adapt the co-management system. A deep interest in local fisheries management and technical training improves opportunities for learning. The Inuvialuit agreement, the Gitxsan approach to fisheries management and the Skeena Watershed Committee have all provided opportunities for learning.
- VISION is necessary to keep progressing in any fisheries management situation. Views of sustainability may change over time but initial goals must be outlined. The Tahltan AFS is the only agreement that has not outlined a "vision". How can management goals be achieved when they have not been laid out?
- IMPLEMENTATION works best from the operational level to the normative level. A product that can be understood and implemented at the community level is more important than an "ideal" product that cannot be implemented. The role of individuals cannot be overlooked. The B.C. agreements involving the Aboriginal Fisheries Strategy have all been successfully implemented.
- MONITORING through existing yearly reviews needs to be supplemented with new action plans to continually improve co-management systems. Co-management systems that have "built in" opportunities for learning, the IFA, Gitxsan and SWC, create more effective agreements.

The next, and last, chapter contains concluding comments on fisheries co-management, the Aboriginal Fisheries Strategy, and recommendations to improve the Tahltan and other First Nations' participation in fisheries co-management based on the key lessons outlined above.

7

Conclusions and Recommendations

British Columbia's existing structures and agencies for managing fish, allocating the catch, regulating fishing, enforcement, consultation, and reconciling the competing interests of commercial, aboriginal, and recreational fishers have been much criticized (Pearse 1997). This criticism has lead to a move away from the government approach to fisheries management to co-management arrangements. Aboriginal participation in fisheries management has increased since 1992 with the development of the Aboriginal Fisheries Strategy (AFS). This thesis has examined the AFS fishery agreement of the Tahltan First Nation and other fisheries co-management agreements in place in B.C. and the provisions and processes of development of comprehensive claim-based agreements in northern Canada. This chapter begins by summarizing why government management needs to be replaced with co-management and what the AFS offers First Nations. It then briefly discusses which fisheries agreements best meet the criteria developed by McDaniels, Healey & Paisley and outlines recommendations to improve the Tahltan and other First Nation's participation in fisheries co-management.

7.1 From Fisheries Mismanagement to Fisheries Co-management

The literature review in chapter two supported the idea that the problems associated with fisheries management stem from a state approach to this resource and its use. First, there are the contradictory commitments to conservation of the species and to

private accumulation rights. Second, these agencies were trained to manage fish populations, not people. They have ignored the human component of fisheries management and have not taken the time to understand the fisher's perspective. It seems ironic then, that government agencies are using a combination of access rights, leasing systems, and economic incentives to control the activities of the fishers. The "tragedy of mismanaged state property" blames the government for the failing fisheries since the fishers cannot control licensing and they have not been able to participate in the management of the fishery (Marchak 1987a). For these, and other reasons, there has been a move away from the government approach of scientific models and regulatory enforcement to co-management.

Co-management seeks a balance between community-based management and management by governments. It links equity issues with conservation by showing that a particular resource may be effectively conserved under the control of a group of users who depend on it to meet their own needs (Berkes & Feeny 1990; McGoodwin 1990; Weber 1995). This approach uses collective action and local institutions to solve management problems.

There are various ways to approach co-management, and it operates on many levels. It is however, essentially a form of power-sharing (NRTEE 1998). Co-management can be a response to a crisis, community pressure or the settlement of claims. Regardless of its origins, every co-management case should be flexible and tailor made. Three key ingredients to successful co-management have been identified: 1) a strong link to and support from community and government institutions, directly or through a co-management body; 2) effective participation of users in decision-making

processes and in the design and conduct of research; and 3) capacity building (e.g. adequate funding, and the removal of cultural and linguistic barriers; Osherenko 1988; NRTEE 1998). Co-management only works if it can be implemented, seen as beneficial to all participants, and develops a capacity within people, communities and governments to deal with issues collectively.

The literature on common property theory and international co-management experience demonstrate that successful co-management also needs a legal basis to be taken seriously. Berkes, et al. (1996) related co-management success stories in Canada to Aboriginal claims. The legal basis in Aboriginal claims agreements provides defined management rights for local resource users. How do these claim co-management agreements compare to other fisheries co-management agreements in British Columbia? The literature on claim-based co-management is extremely small and comparative studies of arrangements before a claim is settled with those in a settled claim are even fewer. To decide what is the best type of agreement for fisheries co-management, two steps were taken: 1) the Aboriginal Fisheries Strategy and what it has offered to First Nations was reviewed, and 2) seven fisheries co-management arrangements (three claims, four non-claim) were evaluated.

7.2 The AFS and What it Offers First Nations

The Aboriginal Fisheries Strategy has been providing a substantial means for fisheries co-management for First Nations for several years. The strategy arose out of the conflict between DFO enforcing regulations and aboriginal people exerting their rights to the fishery resource. Charges were laid, riots broke out and court cases ensued. It was

mutually beneficial to enter into negotiated agreements rather than long and costly litigation.

The AFS was based at an operational level and written to involve First Nations in fisheries management activities (e.g. stock assessment, recording the food fish catch). DFO was working to ensure a stable, predictable, and profitable fishery for the benefit of all Canadians. The AFS had a poor start being introduced mid-season without enough preparations, but each successive year has seen improvements as DFO and First Nations learn and adapt the agreements. First Nations are demonstrating their commitment to the fisheries resource and their participation in fisheries management.

The AFS has been able to achieve food fish quotas and communal licences; economic develop programs; management, technical and enforcement training; habitat improvements; and resource enhancement activities. The strategy still needs to improve in many areas. They include: DFO's relations with aboriginal peoples, support for co-management, the Aboriginal Fisheries Guardian program, controversy over commercial sale of food fish, consultation on policy guiding AFS negotiations, and increasing integration of the management of commercial, recreational, and aboriginal fisheries. Consensus decision-making is an aspect of co-management that needs to be incorporated into the AFS.

AFS agreements have had an evolving nature, staying within limits of the *Fisheries Act*, and are seen as interim agreements until treaties are signed. The AFS is useful to the treaty process. It has produced experience in a co-management setting and a mutual understanding of what is involved in fisheries management. It has provided opportunities for economic development and employment, and helped to build capacity

for dealing with fisheries issues within communities, between communities and government, and with other users.

The AFS was intended to make the transition to treaties much easier but so far, it seems to have outstripped the treaty process. The AFS is a practical working agreement underscoring the fact that agreements that cannot be implemented, do not work. For some First Nations, having a working fisheries agreement in place is more important than being in treaty negotiations (Duiven, Per. Comm.). The Supreme Court of Canada has already determined Aboriginal rights to the fisheries resource and the *Delgam Uukw* decision has clarified that this includes management rights over resources. With their oral histories accepted in courts of law and their sovereignty recognized, aboriginal people are going to think twice before settling within the B.C. treaty process.

With the B.C. treaty process on a weak footing, how have the fisheries provisions of the comprehensive claim agreements in the past faired? The assumption was that claim-based co-management was the best out there. This may or may not be true.

7.3 Assessment and Results

Seven fisheries co-management cases were examined in this study. Fisheries provisions in three claim agreements (Inuvialuit Final agreement, Yukon Umbrella Final Agreement, the Nunavut Land Claims Agreement) and four fisheries agreements in B.C. (the Gitxsan management approach, the Nisga'a AIP, the Tahltan AFS, and the Skeena Watershed Committee) were chosen.

Managing for change, complexity, uncertainty and conflict within fisheries management requires the development of a vision, process, product, implementation and

monitoring. The products focused on in this examination were fisheries agreements and provisions for fisheries in claims and the institutions they have created. The process by which these products were created and function under is co-management. What differed in the cases studied was the degree to which their vision of sustainability had been developed, the ease with which the product had been implemented, and the presence of a monitoring system to learn from mistakes and adapt the product.

The most successful agreement moved from the operational level up to the normative level. The Gitxsan had a community-based approach with the recognition of their House Chief's authority, the formulation of their own biological studies, and the development of selective fishing methods. They have an AFS agreement and a local watershed authority that relates information that has been collected back to the House Chiefs and to DFO. The Gitxsan also participate in the Skeena Fisheries Commission and indirectly in the Skeena Watershed Committee.

The Inuvialuit Final Agreement was the next best fisheries co-management agreement having strengths in five of seven criteria. It is the claim with the longest history (fourteen years) and therefore the most experience. The FJMC and HTCs are functioning well and have brought a climate of confidence, certainty, and control in fisheries management (RCAP 1996). The Nunavut Land Claims Agreement also had strengths in five of seven criteria but this agreement's evaluation was dependent on its potential for implementation. The NLCA has strengthened the role for Inuit participation in fisheries management, defined the NWMB's role in research, provided a basis for self-sufficiency, and protected the fisheries resource from development impacts. The NWMB

is only in its fifth year and has many challenges to face in the coming years with the creation of the new territory.

The Skeena Watershed Committee had strengths in four areas. Their mission to conserve, protect and rebuild the salmonid resources of the Skeena brought together all users in the watershed and promoted community decision-making. The organization respected First Nations rights and acknowledged that more selective fishing methods and gear is one way to achieve their goals. The SWC is learning orientated, knowing it needs input from all users and approaches that can be adapted when failure is evident.

The Yukon UFA's strengths were in its efforts to rebuild salmonid stocks and the role of First Nations at the local, regional and territory-wide boards. The Salmon Committee has yet to develop its link to the community level to ensure appropriate research is carried out and baseline studies initiated. The Tahltan AFS has increased local participation in technical assessments and at the management level but needs to improve on five aspects of the evaluative criteria. Recommendations for improvements of this agreement are described in the next section.

The Nisga'a First Nation's AIP was treated as either moderately or weakly meeting the criteria. Strengths could not be clearly identified as a Final Agreement has yet to be signed. The focus of the Nisga'a AIP was to establish a Nisga'a Central Government, annual fishing plans, and a JFMC.

Ten summary lessons were learned from the criteria developed by McDaniels, Healey & Paisley. They include: 1) habitat needs to be considered from the outset and explicitly negotiated in terms of fisheries management activities; 2) stock health is directly influenced by the use of selective fishing methods and gear - move away from

mixed fisheries; 3) community economic well-being is improved with an increase in aboriginal participation in commercial fisheries activities; 4) equity for Aboriginal rights is hindered by internal conflict within a First Nation and between First Nations; 5) trust and cooperation between users is not inherent - respect is earned; 6) community involvement is strong if the agreement builds on a traditional system; 7) opportunities for learning require acceptance that there will be problems and adequate mechanisms to adapt the co-management system; 8) vision is necessary to keep progressing in any fisheries management situation; 9) implementation works best from the operational level to the normative level; and 10) monitoring through existing yearly reviews needs to be supplemented with new action plans to continually improve co-management systems.

7.4 Recommendations for the Tahltan First Nation AFS

Based on this review of experience in seven co-management systems, to improve their participation in fisheries co-management, the Tahltan and other First Nations should look for ways to achieve six things: to create a vision by developing a strategic plan; to strengthen community involvement by building their fisheries co-management system from a traditional base; to increase opportunities for learning by improving technical training; to broaden the fisheries management focus by actively participating at the watershed level; and to increase community economic well-being by actively participating in local commercial fisheries. These six recommendations are discussed below in terms of the Tahltan First Nation AFS.

- Create a "vision" by developing a long-term strategic plan.

Tahltan AFS projects are negotiated each year with discussion and adaptations made to previous programs but there is no long-term focus. Stock health, habitat improvements, etc. are understood to be goals but a mission statement, objectives and long-term plan are missing. The stability of fisheries co-management depends on vision and communities need markers to achieve to feel that progress is being made. The Skeena Watershed is a good example of an agreement that clearly states its mission and has outlined incremental steps to achieve its goals. When achievements are visibly met, overall support for the co-management arrangement is increased.

- Various Funding sources should be secured.

This is the last year of the Tahltan First Nation's multi-year AFS agreement with DFO. Funding levels could change and negatively impact the programs already running in the Tahltan Fisheries Program. Financial resources were allotted on a yearly basis when quarterly reporting requirements had been met. All funds had to be spent within the "business" year including money earned in the ESSR harvests. This does not encourage long-term planing or program spending to be thrifty, allowing them to "bank" money one year when a project does not get off the ground.

It would benefit the Tahltans if they were to get away from the government's yearly budget which is being continually reduced - if this is at all possible. Block funding from government and independent funding from a variety of other sources would give them more latitude on projects they choose to run (Clarkson, Per. Comm). Investments

could even be made to increase the amount of money available or a trust fund of some sort established (e.g. Nisga'a and UFA) to achieve their strategic objectives.

- Strengthen community involvement by building their fisheries co-management system from a traditional base.

For generations, the Tahltan people have been dependent on the utilization of the Stikine's fishery resources for food and trade. This importance needs to be fully recognized at the Band Council level and the importance of fisheries management to the people expressed. The Tahltan Fisheries Program wants to manage this resource for all Tahltans no matter where they are: U.S., B.C., Yukon or abroad. Tahltan people should always be able to come back to the area to fish (Inkster, Per. Comm.). To do this, responsibility for fisheries management needs to be removed from Band Council politics.

Band Council elections normally occur every two years. In Telegraph, there was an election in 1996 and again in 1997 due to nomination errors in the 1996 election. There will be an election again in 1998 to bring the elections back to their proper bi-yearly rotation. Elections limit the decisions that can be made and monies spent six week prior to the election date. Unfortunately, elections are held in June during the height of fishing season. This limits long-term planning and the commitment the people "in power" are able to make to fisheries issues. A full understanding of the AFS at the Band Council level and the community level has suffered because of this. The Band Council system has been imposed on the First Nation by DIAND. There has been talk of getting back to more traditional leadership (e.g. clan system) but the hurdles to make this happen are formidable.

What is needed is a "Fisheries Society" - a body that will be responsible for fisheries management for the First Nation. It would work in conjunction with the Tahltan Fisheries Program to build a strategic plan and foster community involvement in all aspects of the fisheries. An idea like this was proposed back in 1991 for all resources in Tahltan traditional territory but it never came to be as there were problems with the Tribal Council that had to be sorted out and the Tahltan people did not completely understand the role of committees and their importance (Frocklage; Inkster, Per. Comm.). An Elder society has been formed over the past year that may offer an avenue for a "Fisheries Society" or at least constructive discussion on fisheries issues (Inkster, Per. Comm.). The Gitxsan had the strongest traditional base from which to work. The Tahltan do not subscribe to a House Chief approach but need to work at developing their own community base .

- Increase opportunities for learning by improving technical training.

More technicians need to be formally trained in fisheries science to reduce staffing problems and program limitations (e.g. habitat restoration). Coordinators need to be taught how government prediction models work and be able to understand the science behind them. This would allow them to better compare and adapt the models to include local knowledge. Further involvement in enforcement activities, extending beyond the present enforcement protocol, would enhance local control of fisheries activities. These improvements would increase opportunities for learning and result in superior habitat and stock assessments. Training in local history, local phenomenon, and traditional harvesting and processing methods would also increase the Fisheries Program's knowledge and

commitment to the resource. The Gitxsan First Nation are very strong in this area. They have their own technical training program, have carried out their own biological studies since the 1980s and have their own Aboriginal Fisheries Guardians (enforcement people).

- Broaden the fisheries management focus by actively participating at the watershed level.

The Tahltan AFS focuses strictly on salmon. Other species in the watershed should be considered when determining the health of the system and what projects to undertake. The Tahltan AFS does include meeting with other users on the Stikine and the Tahltan Fisheries Program has been active seeking advice and input from other First Nations and community members. Increased involvement in Transboundary issues is also on their agenda with closer links being created with the Alaska Department of Fish and Game. The structures are in place to be involved in an operational treaty arrangement but active participation needs to be increased. Active participation of all users is reflected in the Skeena Watershed Committee, RWOs in the Nunavut claim and RRCs in the Yukon claim.

More discussion of policies relating to other industries in the watershed impacting the fisheries resource needs to occur. Mines already operate in the area, outfitting and guiding activities are expected to increase, and logging could come in full force. Any impact in Tahltan traditional territory has the potential to damage the fishery resource and its habitat.

- Increase community economic well-being by actively participating in local commercial fisheries.

The Tahltan First Nation's lower Stikine commercial fishery needs major improvements. They were somewhat successful from 1989-1991 in developing a camp near the mouth of the Iskut River and selling their fish to either Great Glacier Salmon Ltd. or companies in Wrangell. Since 1996, the Band Council has tried to encourage fishers down river but many are working in the mines or do not have the capital or personal drive to make a successful season. The Band Council is considering leasing out their 6 licences for 2-5 year leases to other First Nations or interested individuals to increase the commercial fishery activities in the Stikine on the Canadian side of the boarder. Local people need to see how successful this fishery can be when worked by committed individuals.

The commercial sale of fish caught under the a communal food fish licence has been a hotly debated topic since 1992. With the "pre-contact test" set out in *Gladstone* and *Van Der Peet*, the Tahltan First Nation may be able to participate in the sale, trade or barter of their food fish to improve their upper river commercial fishing opportunities. First, the First Nation has to prove that it was involved in these activities before colonization. The Gitxsan have been successful in developing their fisheries and improving their fisheries methods. The Tahltan could learn much from Gitxsan experience.

The feasibility of implementing these recommendations is dependent on the Tahltan Band Council's response and the communities' ability to take responsibility for

its fisheries. These recommendations need to be viewed as a constructive assessment of Tahltan participation in fisheries management and ways to build and improve on what has been accomplished. The Band Council must see that devolving at least partial control of fisheries management to a "fisheries society" will place it in more stable hands. The communities of Telegraph Creek, Dease Lake, and Iskut need their awareness and education of fisheries issues heightened. An interest in fisheries has been created in some local youth but the necessity of properly trained field technicians cannot be stressed enough. The issue of block funding needs to be taken up with the Federal government. After the success the Tahltan First Nation has achieved with their AFS agreement, adaptations to the funding structure should be considered.

Co-management participants must be prepared to put in time and effort to make it work realizing that progress will be slow and painful in a step by step progression (MacLeod 1989; Gallaugher 1997). The first step is to make the Tahltan First Nation aware of changes that would improve their participation in fisheries co-management. They will have to make the choice whether or not to fully commit to the co-management process.

7.5 Future Research

This research raises several additional questions which could be explored in future research.

- If treaties are settled in B.C., what do their fisheries co-management systems involve and what role has the AFS played in each case?

- If treaty negotiations are not underway within five or ten years, Where does the AFS stand? Has the AFS dealt with the problems outlined in chapter three? Has the AFS evolved further due to the court cases that have been passed?
- What role has the AFS played for First Nations in the different provinces and territories in Canada? Compare AFS agreements in B.C. with other AFS agreement in Canada (e.g. Ontario, New Brunswick).
- Revisit the case studies in five to ten years to see how their co-management systems have changed. How have they been implemented? What is happening "on the ground" in relation to the written agreements?
- The methodology outlined in this study could be used to examine other resource management arrangements (e.g. forestry). What adaptations would need to be made? How does the management of other resources compare with the fisheries co-management agreements analyzed in this study?

7.6 Conclusion

Overall, each case study's treatment of fisheries co-management reflected local circumstances. The IFA created a Fisheries Joint Management Committee and Hunting and Trapping Committees to manage the fisheries resource in their claim area. A climate of confidence, certainty and control has been developed (RCAP 1996). The Yukon UFA based fisheries management responsibilities in the Yukon Salmon Committee, having RRC's and First Nation's concerns fed into this committee. There are concerns that this arrangement will have integration and coordination problems as the other eight claims

within the UFA are settled. The NLCA based their fisheries provisions out of the Nunavut Wildlife Management Board, having Regional Wildlife Organizations and Hunting and Trapping Organizations to devolve certain responsibilities and research duties. The roles of these organizations in the NLCA have been strongly defined but it will take time to fully evaluate if this co-management system is operationally successful.

The Gitxsan had House Chiefs, the GWWA (including an AFS program), and their participation in the Skeena Fisheries Commission. Their fisheries management system fulfilled the criteria developed by McDaniels, et al. the best. The Gitxsan have a strong traditional base, long-standing biological studies, and actively participate at the local and watershed levels. The Nisga'a were working from an AFS agreement's Joint Technical Committee into a comprehensive claim arrangement which involved a Nisga'a Central Government, annual fishing plans, and a JFMC. Unfortunately the AIP does not mention how the annual fishing plans would be implemented at an operational level or if there will be coordination with other First Nations in the Nass watershed. The AIP seemed more harvest orientated than management oriented. The Tahltan First Nation's AFS involves the Tahltan and Iskut Band Councils, the Tahltan Fisheries Program (Tahltan and Iskut departments), and the Stikine-Tahltan Co-management Committee. The AFS has allowed the Tahltan people to prioritize their concerns and participate in fisheries management activities. Specific recommendations to improve this AFS are outlined above. The Skeena Watershed Committee was the only multi-party focused agreement including aboriginal, sport and commercial interests. This committee had real progress from 1994-1997 developing a management plan that outlined joint research, data

sharing, enforcement, and the consideration of joint enhancement. Work is being done to bring this committee back together.

Each co-management arrangement was very different from the others, taking place in a different regional and community context. Context determines the outcome of co-management arrangements. This means that these regimes must be made from the community level (bottom up) so they reflect local circumstances without compromising the key ingredients of co-management and the ultimate goal of sustainability. The focus of co-management must be on the health of the resource. Much depends on the individuals involved within these arrangements and leadership.

The Aboriginal Fisheries Strategy is a practical working agreement underscoring that agreements that cannot be implemented, do not work. The AFS has been successful in strengthening communities and the fisheries resource as a basis for fisheries co-management. It is still evolving and needs improvements, for some First Nation's agreements more than others, but it provides a solid base to build on. The significance of the AFS to the Tahltan First Nation is that it has brought fisheries management activities to the Tahltan and Iskut Band Councils. Instead of just participating in studies by other firms, this First Nation can prioritize their fishery concerns in the Stikine watershed and work with government and other users to address them.

While it has been argued that land claims-based co-management is the best approach (Berkes, et al. 1996), this study suggests that claims-based co-management is not necessarily the best goal for aboriginal groups seeking fisheries co-management. The Aboriginal Fisheries Strategy, alone or in combination with other fisheries arrangements, has provided strong, flexible, and locally appropriate structures and benefits. Recent court

decisions (e.g. *Van Der Peet, Delgam Uukw*) should help to improve and strengthen the AFS and its achievements, providing a non-claim legal basis for fisheries co-management.

APPENDIX I

Background Information on Claims and Agreements

The Inuvialuit Final Agreement (IFA)

Initially, the Inuvialuit, were part of the overall claim of the Inuit Tapirisat of Canada (ITC) which covered the traditional lands of the Inuit throughout the Canadian Arctic. The Committee for Original Peoples' Entitlement (COPE), representing the Inuvialuit, submitted its own claim to the Federal government in 1977. Under pressure from the drive for oil and gas in the Beaufort Sea, this claim was the first to be negotiated under the Comprehensive Claim policy of 1974 (Whittington 1990). The Inuvialuit Final Agreement (IFA) was negotiated by the Government of Canada, represented by the Minister of Indian Affairs and Northern Development, and COPE in the presence of the Governments of the Northwest Territories and the Yukon Territory. The territorial governments were being consulted and participated in discussions that affected them and their jurisdiction.

Although the settlement lands are owned and controlled by Inuvialuit beneficiaries, the laws of general application continue to apply and the Crown retains ultimate jurisdictional authority for environmental management (Whittington 1990; RCAP 1996). The Inuvialuit role in resource management was provided for in the establishment of five distinct co-management bodies: two for wildlife - Wildlife Management Advisory Councils (Northwest Territories and North Slope), one for fisheries - Fisheries Joint Management Committee, and two for environmental impact assessment - the Environmental Impact Screening Committee and the Environmental Review Board. Collectively these are referred to as the Renewable Resources Committees (Carpenter, Handidge & Binder 1991; RCAP 1996; Winn 1991). These committees

provide equal and meaningful participation for the Inuvialuit in all aspects of resource management in their settlement region (Welch 1995).

The Inuvialuit Game Council (IGC) represents the collective Inuvialuit interest in wildlife and is composed of two representatives from each of the six Hunting and Trapping Committees (HTCs). The IGC appoints Inuvialuit members to all joint government-Inuvialuit bodies with an interest in wildlife, advising the appropriate government departments on areas from legislation, regulations and policies, to research, management, and enforcement (RCAP 1996). It acts as a link between the Renewable Resource Committees and the HTCs.

The HTCs and the IGC's administrative and operational costs are covered by the territorial government while the FJMC and the Joint Secretariat are funded through the IFA. The original thinking was that the claim settlement would not result in additional costs to the territorial governments. Thus all funding originates from the Federal government and is coordinated by DIAND. DIAND creates financial instruments with the territorial governments to provide the money that the territorial governments need to meet their incremental obligations under the claim. Similarly, DIAND coordinates the additional funding that its sister departments (e.g. Department of the Environment, Department of Fisheries & Oceans) require, and through a Treasury Boards process, those funds are added to the budgets of the line departments (Bell, Per. Comm.).

The Yukon Umbrella Final Agreement (UFA)

The Council for Yukon Indians' (CYI) claim entitled *Together Today for Our Children Tomorrow* was accepted by the Federal government for negotiation in 1973. An

agreement-in-principle was reached in 1984 and ratified by both Federal and Territorial governments, but was rejected by the CYI General Assembly because some of the key concerns of Yukon First Nations (e.g. extinguishment of Aboriginal title) had not been addressed. In December 1986, a new federal policy on Comprehensive Claims was announced and negotiations resumed in 1987 in accordance with the revised policy.

Chapter Sixteen of the UFA provides for a wide range of guarantees of participation on boards and councils with renewable resource management responsibilities, special harvesting rights, and some economic development opportunities. The UFA also set up a $3 million joint (Federal & Yukon) Government-Yukon First Nation Fish & Wildlife Enhancement Trust. It was established to restore, enhance, and protect wildlife populations and habitat in the Yukon. Each party contributed a million dollars to the fund. The money, held in trust by the Fish and Wildlife Management Board, can be used to initiate, sponsor or directly fund and carry out activities aimed at meeting Chapter Sixteen's objectives (INAC 1996a).

Salmon fishing in the Yukon is governed by international treaties and a few interconnecting institutions which work together to preserve and enhance the territory's salmon stocks. The Pacific Salmon Treaty (1985) and the Yukon River Annex to the Treaty provide the framework for program management, stock conservation and harvest allocation for the Yukon River. An Interim Agreement, as part of the treaty, refines arrangements between the United States and Canada. The Yukon River Panel is provided for by the Interim Agreement. This panel coordinates the management of salmon between the Yukon and Alaska. Added to this international management arrangement is the

Yukon Salmon Committee, mandated by the Umbrella Final, to deal with all aspects of salmon management in Yukon (Yukon Salmon Committee 1997).

The Nunavut Land Claims Agreement (NLCA)

The original land claims proposal of the Inuit of the eastern Arctic, entitled *Nunavut*, was presented to the federal government in 1976 by the ITC, the organization that represents all of the Inuit in Canada. The Nunavut proposal demanded 400,000 square kilometres of land in the eastern arctic, along with royalties and compensatory payments for past use of Inuit lands. It was criticized heavily from regions in the eastern Arctic because it extinguished all Aboriginal title and did not provide political or constitutional guarantees of rights of the Inuit after settlement. The proposal was withdrawn for redrafting (Whittington 1990). In 1982, Inuit leaders decided to mandate a new institution to conduct negotiations for Nunavut, removing it from the ITC's laden agenda. The Tungavik Federation of Nunavut (TFN) was a non-profit corporation established specifically for the purpose of negotiating and concluding a land claim agreement with the federal government on behalf of the Inuit of the Baffin, Keewatin and Kitikmeot regions of the N.W.T. (Fenge 1992). The TFN negotiated the claim with three objectives in mind: to confirm and recognize their resource harvesting rights and their title to northern lands; to provide a basis for economic self-sufficiency; and to give the Inuit a strong participatory role in the management of lands, resources and offshore areas (Fenge & Rees 1987).

Within Nunavut there are three distinct regions (Qikiqtaaluk, Kivalliq, Kititkmeot) and twenty-seven communities, twenty-six of which are on the coast. The

Inuit form a solid majority in the territory (17,500 in 1992 and growing) and, therefore, will have a preponderant influence in a public government to be elected by all residents of Nunavut, Inuit and non-Inuit.

The NLCA provides for the establishment of a complete co-management regime for Nunavut designed to produce land-use plans (Nunavut Planning Commission), to participate in wildlife management (Nunavut Wildlife Management Board), regulate water use (Nunavut Water Board), and review the potential impacts of development (Nunavut Impact Review Board). These three boards may come together as a "Marine Council" to advise government on the management of the Nunavut marine environment or separately advise and make recommendations to other government agencies regarding marine areas (Gillies 1995). As of yet, a Marine Council has not been formed (Pike, Per. Comm.). These natural resource institutions and decision-making procedures defined in the NLCA are designed to operate as parts of a whole. With the exception of the Nunavut Wildlife Management Board, these institutions and their substantive powers, functions, objectives and duties are to be established through statute (Fenge 1992). It is acknowledged in the NLCA, by all parties, that provisions should be made for consolidation and reallocation of functions to ensure that the resource management system can adapt to changing economic, social, and environmental circumstances.

The Gitxsan First Nation

Prior to 1994, the Gitxsan and Wet'suwet'en people were under one political body which had previously co-operated in a land claim, a court case, and in fisheries management. The Wet'suwet' en consist of approximately 1,500 to 2,000 persons. Their

traditional territory falls mainly in the watersheds of the Bulkley and parts of the Fraser-Nechako River systems and their tributaries. It lies immediately east and south of the Gitxsan. The Gitxsan First Nation's traditional territory is the watersheds of the north and central Skeena, Nass and Babine Rivers and their tributaries. Approximately 2,700 Gitxsan live in six reserve communities on the upper Skeena: Kitwanga, Kispiox, Kitsegukla, Kitwancool (Gitanyow), Gitanmaax (Hazelton), and Sikadoak (Glen Vowell). Almost as many live off-reserve in the traditional territory, making a total of about 5,000 locally resident Gitxsan out of a total of 6,000 (Pinkerton & Weinstein 1995). The Gitxsan have drawn heavily from their own traditions to build their current fisheries management system. This may not be typical of the majority of B.C. First Nations, but it illustrates how traditional institutions can be revitalized and adapted to deal with modern problems. "The Gitxsan have been leaders and innovators in attempting to achieve this ambitious goal" (Pinkerton & Weinstein 1995:63).

During the 1980s, the Gitxsan conducted an extensive biological study of their fishery and trained a number of their people in the science of fisheries management and in the operation of the traditional system. These harvest monitoring studies were carried out professionally being accountable to both scientific and political scrutiny (Morrell 1985). The six year study (1980-85) of the aboriginal fishery and other Skeena fisheries by the Gitxsan-Wet'suwet'en Tribal Council resulted in an analysis of the fishery and associated management proposals. The fishery proposals were based on the principle that the Hereditary House Chiefs mush have final authority and responsibility within their territories. The most important harvest management proposal was that mixed-stock

fisheries should be regulated to optimize the escapement of the weakest stock present in the fisheries (Morrell 1985).

The Nisga'a First Nation

Nisga'a society is organized into four clans: Ganada (Raven), Gisk'aast (Killer Whale), Laxgibuu (Wolf), and Laxsgiik (Eagle). Each clan has many houses and each house contains several families. They live in four communities located along the Nass River valley in northwestern British Columbia: Gingolx (Kincolith), Gitlakdamix (New Aiyansh), Lakalzap (Greenville), and Gitwinksihlkw (Canyon City). Each of the four Nisga'a villages elects its own Band Council responsible for running the day-to-day affairs of their village. Each Band Council has a place on the Tribal Council, with the executive of the Tribal Council being elected yearly. The Nisga'a Tribal Council was established in 1955 for the purpose of negotiating land claims, one of the first to be established in B.C. (INAC 1996b).

The Nisga'a began their formal claim for the Nass Valley in 1913 but it was not until 1976, after the 1973 Supreme Court of Canada's decision in the *Calder* case, that the Federal government opened talks with this First Nation. In the *Calder* case, the Nisga'a plaintiffs sued the Attorney General of British Columbia for a declaration that the Aboriginal title to their ancient tribal territory had never been lawfully extinguished. Although the Nisga'a lost their case on a technicality, the Supreme Court of Canada agreed with the argument put forward by Thomas Berger for the Nisga'a, that Aboriginal title to traditional lands had not yet been resolved (Wolf-Keddie 1995). The ruling created

uncertainty about ownership and control of lands and resources in Canada putting the issue of unresolved Aboriginal claims on the federal agenda.

From the 1976 bilateral claim negotiations, a framework agreement was developed in 1989 which set out the scope, process, and topics for subsequent negotiation. By 1990, the B.C. government recognized that its involvement was necessary to resolve questions around lands and resources and decided to formally join Canada and the Nisga'a Tribal Council at the negotiating table (INAC 1996b). By March 1991, the province signed the Nisga'a framework agreement as a full partner. After this historic step, the aboriginal community, the Federal government and the Province of B.C. created the B.C. Treaty Commission to manage the treaty-making process. To consult with third parties, the Treaty Commission established the Treaty Negotiation Advisory Committee (TNAC). TNAC conducts a province-wide consultation process allowing third party interests in B.C. to advise the governments on treaty negotiations with First Nations.

For the Nisga'a AIP, TNAC held close to 200 consultation and public information events in northwestern B.C. from 1991 to 1995. Several regional third party advisory committee meetings were established. Nearly thirty meetings were held with the forestry committee, another twenty-five were held with the fisheries committee. A larger committee representing the full range of community, economic and local government interests also met more than twenty times. The Treaty Negotiation Advisory Committee, along with its Fisheries Sectoral Committee, were briefed on the Nisga'a negotiations (INAC 1996b).

The Nisga'a Central Government will consist of elected members: at least three at large by Nisga'a citizens; the Chief Councilors and other councilors of the four Nisga'a

Village Governments; and one representative from each of the Nisga'a Urban Locals (greater Vancouver, Terrace, Prince Rupert/Port Edward; Nisga'a AIP 1996:68). Financially, the Nisga'a will have the Lisims (Nass River) Fisheries Conservation Trust ($10 million from the Federal government, $3 million from the Nisga'a) and will be given $11.5 million, with appropriate support from the Federal government, to enable the NCG to increase its capacity (licences or vessels) in the coast-wide commercial fishery. The JFMC will be financed through the Nisga'a Final Agreement.

The Tahltan First Nation

The Tahltan are a race of Athapaskan-speaking land hunters and river fishers occupying the Stikine River headwaters country. There were six distinct groups each with its own territory for fishing and trapping, though they shared hunting lands: Tagicoten; Naloten, Talakoten, Tudenekoten; Tlepanoten; and Naskoten. They continuously traveled around their area with the seasons hunting animals, fishing, and gathering plants for their food supply "but no matter where they were, in spring and summer, Tahltan people always went back to the Stikine to put up fish" (Framst 1996: 9). The Stikine River was their highway, link to the ocean. Each year the Tlingit from Wrangell, Alaska, made their way up the river to dry fish and trade with the Tahltan people. The Tahltan were situated between coastal and interior aboriginal people, which resulted in their becoming middlemen in trading before the coming of white settlers.

Geographically, their traditional hunting and fishing territory extends on the north to the mouth of the Rancheria River in the Yukon Territory, on the south to Treaty Creek in British Columbia, on the east to the Finlay River, and on the west to the Border

between Alaska and British Columbia (Isaac 1995). In more cultural terms, the Tahltan traditional territory includes all of the Stikine watershed, extending west and north to border the Tlingit First Nation's territory, east to border the Kaska and Sekani traditional territories and south to incorporate the Iskut Band settlement and border the Gitxsan territory. The Tahltan homeland is dramatically defined, but theirs has probably never been a culture of isolation. Trading links connect them with their neighbours on all sides. Exchange of oolichan oil, dried salmon, obsidian and berries was part of an intricate regional intercultural economy. Exchange, travel and warfare are strong elements in Tahltan oral history; a history in which the people's use and knowledge of the Stikine is recorded and celebrated. The names of mountains, creeks, and village sites, along with the histories of family names and titles, give life – cultural, human life – to every part of this landscape (Brody 1991).

In 1905, A.W. Vowell, Superintendent of Indian Affairs for B.C., had "contained" the Tahltan on two reserves: Tahltan (Reserve No.1) comprised of 375 acres, thirty-four kilometres northeast of Telegraph Creek at the confluence of the Tahltan and Stikine river; and Hiusta's Meadow (Reserve No.2) contained forty acres, eight kilometres northeast of Reserve No.1. According to government officials, this was all the Tahltan owned outright. In response to this confinement and recognition of attempts to further Aboriginal rights, the Tahltan filed the "Declaration of the Tahltan Tribe" in 1910 laying claim to sovereign rights to all the country of the Tahltan Tribe. It was made clear in the Declaration that the Tahltan people had never applied for the small amount of land arbitrarily set aside for them as a reserve by the then Indian Commissioner, and signaled a desire to enter into treaty negotiations with the governments involved to settle all matters

of lands, hunting, fishing, and welfare (Isaac 1995). No such treaty has been concluded with the Tahltan people.

The majority of Tahltan people live in the villages of Telegraph Creek and Dease Lake, although some have moved to Yukon and other parts of B.C. Tahltan people are administered through the Tahltan Band Council in Telegraph Creek. The Tahltan Tribal Council was formed in the late 1970s to represent off-reserve Tahltans. It evolved from its initial purpose into a land claim entity, representing 3,000 members of the Tahltan First Nation and Iskut Band, becoming the main agency through which funding for many programs flowed. Its board of directors included representatives from both the Tahltan and Iskut Band Councils (Frocklage, Per. Comm.).

The Iskut Band is the result of a mix of Sekani and Gitxsan people who came together at Bear Lake in the 1920s and began migrating within Tahltan traditional territory (Isaac 1995). Inter-marriage occurred between this group and various other tribes such as the Tahltan, the Gitxsan, and others. Since 1952 the Bear Lakers, now at Iskut Lake and referred to as the Iskut Band, have been considered by government part of the Tahltan Tribe.

According to Cassidy & Dale (1988), under the auspice of the Association of United Tahltans (composed of the Tahltan First Nation and Iskut Band), the Tahltan people laid claim to their traditional territory which included most of northwestern B.C., extending into the southern Yukon. The official provincial estimate was 109,200 square kilometres (Cassidy & Dale 1988:217). The United Tahltans differed from some of the other B.C. First Nations in that the Tahltans were not claiming sovereignty over land, but

were asking the Federal government to present them with a settlement proposal. Among the items they wanted included in the proposal were:

- specific land areas within their tribal territory to be allocated in perpetuity;
- guaranteed Tahltan participation in programs to preserve the ecology of their tribal territory;
- assurances that the Stikine River not be damned or diverted so as to affect their annual salmon supply;
- guaranteed and protected hunting and fishing rights;
- Tahltan Tribal Government;
- economic development program;
- tax concessions;
- natural resources development participation;
- Tahltan involvement in education; and
- monetary and other compensation (Cassidy & Dale 1988:217).

Their claim was accepted for negotiation by the Federal government in 1980, and by 1988 they were in the top five First Nations in British Columbia striving toward an Aboriginal claim settlement. At this time they were not seeking settlement from the provincial government (Cassidy & Dale 1988).

Today, the Tahltan First Nation has dropped back into the fold (Zealand, Per. Comm.) dramatically. Over the years, the Tahltan and Iskut Band Councils felt that the Tribal Council had too much power and was not performing its function adequately. This breakdown in communication between the three groups is what lead to the demise of the Tahltan Tribal Council in 1994 (Frocklage, Per. Comm.). With the breakdown of the Tahltan Tribal Council, political fighting between the Iskut Band and Tahltan First Nation, and within the Tahltan First Nation has occurred. In the hope of participating in the B.C. treaty process to settle their claim, a statement of intent was put to the B.C. Treaty Commission from the Tahltan Band Council in 1995. Unfortunately, the statement was returned after the B.C. Treaty Commission met with the Tahltan and Iskut Band

Councils to discuss potential treaty negotiations and found that they were unable to speak to the with one voice. Conflicts between the Tahltan First Nation and the Iskut Band came to a head because the Iskut Band claims sovereign rights over portions of the Tahltan Traditional Territory that lie outside specific reserve holdings assigned to the Iskut under the Indian Act (Isaac 1995). There have been measures taken to get back "on track" with treaty negotiations. The Tahltan Band Council is attempting to conduct "Unity Meetings" to try and resolve issues that are keeping the members separated and talk has begun again of forming a body to represent both the Tahltans and Iskut people in treaty negotiations. Progress has yet to be made. The politics of treaty negotiations may be considered complex in the Stikine watershed but in relation, fisheries management is quite simple.

The Stikine Watershed and its Fisheries

The Stikine is an international river which flows from headwaters in north-central British Columbia for 1,040 kilometers in a wide northwesterly arc to its mouth in southeast Alaska (Wrangell). This river drains a watershed of 52,000 square-kilometres and in a sense is two rivers: the salmon-free stretch above the Grand Canyon of the Stikine, and the wide muddy lower Stikine, navigable to Telegraph Creek (Alaska Geographic 1979). Telegraph Creek, the only town along the Stikine, is on the north bank of the river about 416 km upstream from Wrangell, Alaska (Figure 2).

The modern history of the Stikine is shaped by material riches rather than the fishery. Russian fur traders in the 1790s were the first Europeans to see and identify the Stikine's estuary. In the mid-1800s fur traders were joined by gold prospectors, who

followed the Stikine towards the interior in the hope of sudden wealth. At the end of the nineteenth century the Hudson's Bay Company set up its first permanent Stikine trading post 20 km below Telegraph Creek. At about the same time, the gold rush of 1897-98 brought a flood of people to the Stikine (Brody 1991). Steamboats were moving up and down the Stikine, bringing supplies to Telegraph Creek and other staging points. This intense activity only lasted a short time with the last steamer traveling the Stikine in 1916.

In 1900 and 1901, the Yukon Telegraph was built quickly from Dawson City to Whitehorse connecting it by train to Skagway and by boat to the rest of the outside world. When gold was discovered in Atlin Lake, 1300 km from Dawson City, the mining companies prompted the government to continue the line throughout British Columbia. Four gangs of men worked painstakingly toward each other: one south from Bennet Lake in the Yukon Territory, another worked south of Atlin in B.C. toward a third crew coming northward from Hazelton, and the fourth started north from Quesnel (Lawrence 1990). Although the Klondike Rush was short lived, the line was maintained until 1936 by line operators who lived in cabins 20 to 50 miles apart along the trail (Alaska Geographic 1979). In the early 1940s Telegraph Creek again became a supply depot, this time for the construction of the Alaska Highway. In 1972, the Stewart-Cassiar Highway was opened, linking Kitwanga on the Skeena River with Watson Lake on the Alaska Highway.

In the late 1980s, the Tahltan Nation Development corporation prepared a comprehensive development program which included a fisheries strategy. The emphasis of the program and strategy was economic with the central theme "creating an industry from a way of life" (Tahltan Nation Development Corporation 1986). The Tahltan

commercial fishery strategy involved the purchase an operation of three vessels and the procurement of licences from DFO. The Tahltans were looking to re-establish their presence in the Stikine commercial fishery. Even though the strategy discussed the involvement of third parties and the fact that the Tahltan did not want to disrupt or dislocate non-Tahltan businesses, the non-aboriginal fishers were angry. The anger stemmed from the fact that Tahltan members had not previously been deeply involved in the commercial fishery on the Stikine river (Cassidy & Dale 1988). The argument was made that a strong aboriginal and non-aboriginal fishery on the Stikine strengthens Canada's position in negotiating with the U.S. for allocation of Stikine fish stocks.

The Stikine River has all five types of salmon in its waters: chinook, coho, pink, chum, and sockeye. Steelhead, a migratory trout, are also abundant in the river and tend to complicate issues as they are under B.C. government jurisdiction. Sockeye is the most valued commercial species because it is high in oil and protein, easy to can, and has superb flavor. The Stikine fish are of an excellent quality. In fact, sockeye can even be harvested at their spawning grounds and in a terminal fishery (ESSR harvest) and they are still valuable for frozen, smoked, and canning sales. The ESSR harvests are made possible through Canada-U.S. sockeye enhancement projects on the Tahltan and Tuya Rivers.

There are approximately eighteen commercial fishing licences on the Lower Stikine river: the Tahltan Band Council has possession of six, Great Glacier Salmon Ltd. has seven, and the rest are divided between four other fishers. On the Upper Stikine, there are four Tahltan commercial fishers, each with their own licence. The Tahltan people concentrate their food fishing effort around the Telegraph Creek area, as it is accessible

by road. For an individual of Tahltan ancestry to exercise their right to fish, they must either return to their traditional territory or receive permission from the First Nation in the area that they are presently living (Burdek, Per. Comm.). This brings many Tahltan people back to the Telegraph Creek area and the Stikine watershed to fish.

The Transboundary Technical Committee (1997) report offers information on the catch size involved per stakeholder and the run size of fish stocks in the Stikine. The 1996 Stikine sockeye run was estimated at 366,400 fish, of which an estimated 268,600 were harvested in various fisheries, 4,400 were used for brood stock, and 93,400 escaped to spawn. The run was above the 1986-1995 average of 141,400 sockeye salmon. Sockeye salmon from outplants (enhancement projects) into Tahltan and Tuya lakes contributed an estimated 37,200 fish to U.S. and 22,500 fish to Canadian catches (Transboundary Technical Committee [TTC] 1997).

Table 19 1996 Stikine River Fishery Harvests

Species of Fish	Alaskan Commercial Catch*	Canadian Commercial Catch	Aboriginal Catch (Tahltan)	Tahltan ESSR Harvest	Test Fishery Catch
Sockeye	178,600	66,300	6,900	14,300	1,300
Chinook	2,400	2,500	420	-------	50
Coho	unknown	1,400	-------	-------	-------

* Districts 106 and 108

The Skeena Watershed Committee

The Skeena supports all six species of Pacific salmon, with each species consisting of many stocks (or populations). Weaker stocks, of steelhead or coho, migrate at the same time as more abundant ones (Pinkut & Fulton sockeye) and are caught in the

same fisheries. The very real danger of overfishing these more vulnerable stocks is the subject of public concern and debate (DFO 1995b). The focus was on the commercial fleets at the mouth of the Skeena which intercept steelhead runs while fishing for sockeye. Starting in 1991, DFO began threatening to unilaterally impose steelhead conservation measures on the commercial fleet (e.g. area closures and "weedlines" - requiring the lowering of gillnets deeper in the water to allow for the passage of steelhead above). These measures would result in a decrease in the number of steelhead caught but also affect the number of sockeye harvested, decreasing the commercial fishers' revenue. Lack of data on steelhead populations was a burning issue for the commercial sector as they felt that the sport sector was pushing for changes in allocation, not conservation of the species.

The second dimension of the Skeena conflict involved the Gitxsan proposal, throughout the 1980s, for a legalized upriver harvest and sale of enhanced stocks which DFO deemed surplus to spawning escapement requirements. The commercial sector was opposed to this, fearing that it would allow for massive reallocations of the catch upriver; a catch they felt DFO did not supervise adequately. In 1992, the AFS legally sanctioned a Gitxsan commercial harvest under an Excess to Salmon to Spawning Requirements (ESSR) license. This special license allowed for a targeted sockeye catch by six Gitxsan communities using selective gear.

Meetings in the first two years broke the ice, but failed to set up a viable consensus process. The SWC was being sponsored, convened, and chaired by DFO putting the committee in an advisory position with no decision making power. The commercial sector was experimenting with a catch and release fishery in their gillnet fleet

with limited success, refusing to comply with any of the proposed government regulations and/or closures to reduce steelhead by-catch (Pinkerton 1996). Another significant problem was funding. The money DFO had hoped to provide the committee in the 1994 season had been reallocated. After much struggling and heated arguments, four years of funding was found in the federal Green Plan. The SWC has also obtained funds to conduct habitat restoration and enhancement from the Forest Renewal Plan of B.C.

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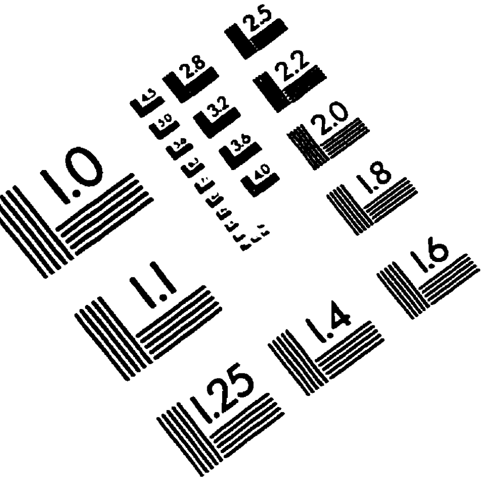
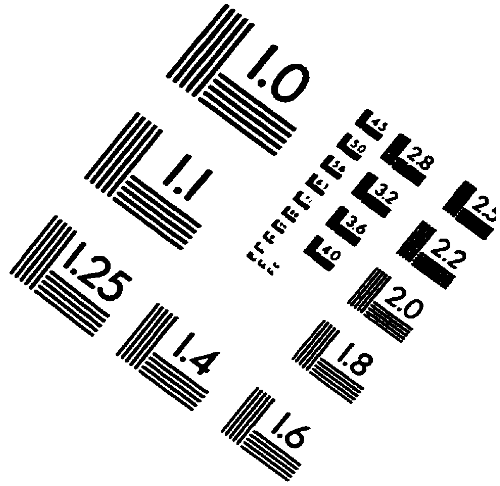
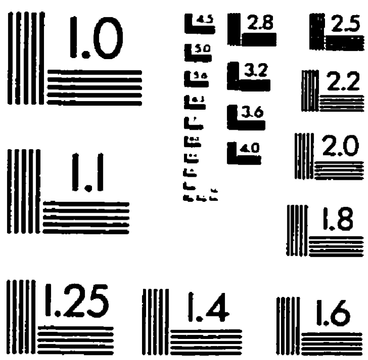
IMAGE EVALUATION TEST TARGET (QA-3)







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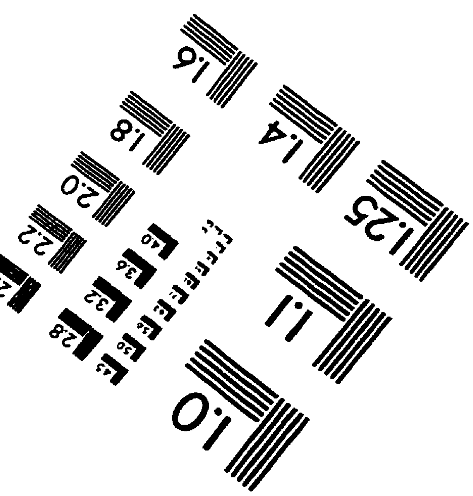

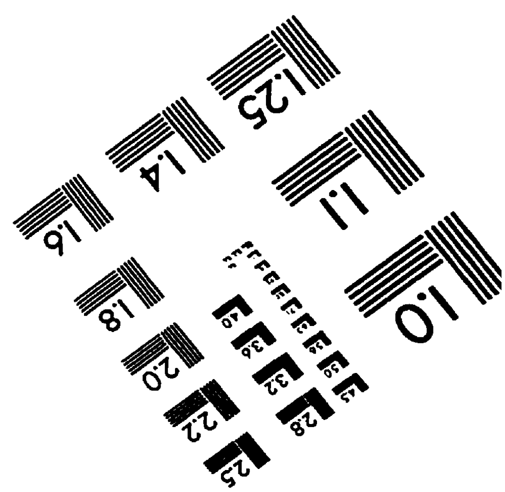

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