PERSPECTIVES ON POLICY IN THE BRITISH COLUMBIA SALMON FISHERIES

BY

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ABSTRACT

The principal focus of this comparative-historical study is the fundamental differences in the perspectives of the Indian, commercial, and sportfishing user groups. A second focus is the differences in outlook of the professions involved in the management of the fisheries, and how their management paradigms have developed over time. Evidence is presented on the social history of the fisheries, including their regulatory history and the manager-user relationship.

Using the rich material presented by the participants in the Pearse Commission as a primary source, the perspectives of user and manager are outlined. In particular, the views users expressed on the emotional policy issue of TURFs are defined. A comparison of these views clarifies the major interests within the fisheries. Observation of the interactions between the user groups and regulatory authorities, both during and after the Commission, reveals the ability of these interest groups to lobby very effectively within the Canadian democratic system.

The major social conflicts within the fisheries that are representative of the importantly different perspectives are: culture conflict, sportfishing/commercial fishing conflict, political ideological conflict, and conflict between profession frames. The most serious conflict is between Indians and other resource users. Indians have sought legal recognition of existing aboriginal rights in fishing, involving increased allocations to Indian users; other users greatly fear displacement as the resources are reallocated. As independent "co-management" planning procedures are being carried on simultaneously between Indian bands and government, and between commercial and sport groups and government, the objectives of the two often conflict. The result is a management and allocation process that remains extremely volatile and subject to such intensive lobbying that rational planning is difficult.

The fisheries management and planning process could benefit from the greater inclusion of the social sciences, a move which would help describe with greater accuracy

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the complex human components of the fisheries. Such an approach would also seek to develop the potential of mediation and negotiation as a means of integrating a number of rational, professional frameworks with user group perspectives, and would imply a continuance in the recent shift from centralist to intermediary planning.

It is suggested that crucial management decisions relating to "endangered" stocks of salmon be delegated to councils of professional biologists, for in such cases it is important that lobbying processes not be allowed to compromise conservation principles. Also, economists should assume management roles that can better accommodate, in the processes of policy making, the heavy overlay of politically-important social policies inherent in the fisheries.

To date, intense negotiation and bargaining processes, involving both user groups and the management professions, have been effectively conducted on both a public and private level. These processes have promoted ongoing social learning which has had a positive effect within the B.C. salmon fisheries (examples are the Pearse Commission, MAC, CFIC, PARK, and the Canada/U.S. Treaty). These types of processes appear to lend themselves to the establishment of lasting bio-anthropological contracts, and the subsequent realization of more rational salmon fisheries management.

A planning process focused upon reducing social conflict, through the development of ongoing negotiation processes between the many participants in the fisheries, is considered the most likely to succeed. Not only will this better maintain the generally good record of biological sustainability of the B.C. salmon fisheries, but also it will gradually enable the full development of their considerable economic and social potential.

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DEDICATION

To the quillback rockfish, <u>Sebastes maliger</u> My favorite fish, who, Like the B.C. Salmon Fisheries, is easily subject to over-exploitation, is a highly adapted product of a long evolution, will spine you painfully if you do not watch his every move, has economic value even in the worst of times, can survive long periods of hardship, adapts to many environments, is traumatized by too-sudden change, appears drab but is beautiful.

Chapter 1

Introduction

A Brief Introduction to the British Columbia Salmon Fisheries

The purpose of this thesis is to adequately and accurately describe the perspectives of the participants in B.C. salmon fisheries, and to thus be in a position to resolve social conflict. This conflict seriously hampers the realization of the significant social and economic potentials that have been noted by the authorities who have studied the fisheries (see below). However, before examining the data relevant to these perspectives, we must first examine the biological, social, and institutional parameters of what Healey (1982) has described as one of the most complex of resource management systems. The basic attributes of this system are the following:

The Fish

The salmon themselves are of five species: (<u>Oncorhynchus spp.</u>) sockeye, pink, chum, Chinook, and coho, each of which have different physical characteristics and life histories. In turn, each of these species is broken down into "stocks", which can be defined as "the fish spawning in a particular lake or stream (or portion of it) and at a particular season, which to a substantial degree do not interbreed with any group spawning in a different place, or in the same place at a different season" (Ricker, 1972, p. 28). These stocks, or subpopulations, have different capacities for harvest (Larkin, 1977). It is estimated that about 3150 stocks spawn in British Columbia (Healey, 1982). The Fisheries

As the history of British Columbia has unfolded, the forms of human predation on salmon have become socially institutionalized into a number of "fisheries", in which a particular "user group" fishes by means of one or more types of "gear", or fishing methods. These fisheries have reflected technological as well as social change. The intermingling of salmon species and stocks is such that there are virtually no "fisheries" for single stocks of salmon, and some fisheries have mixtures of several species and

hundreds of stocks (Healey, 1982). Thus, the rapid and severe depletion of some spawning populations of salmon is possible, especially as weak and strong stocks are intermingling in a fishery. This risk is heightened by the fact that the combined catching capacity of the fishing fleet is sufficient to fish out most stocks within a single season (Healey, 1982). In British Columbia, the salmon fisheries are harvested by three principal user groups who utilize five types of gear to capture the fish: seine, gillnet, troll, rod and reel, and traditional Indian methods.

Table 1 summarizes the user groups, the fishing gear types, and the fisheries within the B.C. salmon management system.

The Indian fishery. Although this fishery has, to date, put relatively light demands on the fish resources (about 4% of the total catch in 1981, Pearse, 1982), it involves issues of profound social, political, and economic consequence. These issues are reflected in the legal wording of the <u>Fisheries Act</u>, the <u>Indian Act</u>, and, perhaps most importantly, in the <u>Constitution Act</u>, 1982, and the <u>Constitution Amendment</u> <u>Proclamation</u>, 1983. Recent government policy relating to the settlement of Native Claims (Dept. of Indian Affairs and Northern Development, 1981; 1985) and to the developing concept of Indian self-government in Canada (Special Committee on Indian Self-Government, 1983) involved issues relating to future salmon allocation. A very significant number of the 55,000 registered Indians of British Columbia (this figure does not include recent additions to this number as a result of Bill C-31) depend on fish for a living or as a traditional food source (Auditor General, 1986). As well as coastal Indian people, this includes inland tribes that harvest salmon on rivers deep in the province's interior. Thus, some 141 of the 196 bands in the province are salmon-eaters.

Table 1

User Groups, Fishing Gear Types, and Fisheries within the B.C. Salmon

Management System

User	Group	Gear Type Used	Common Name for Fishery
India	.	By use of modern fishing gear with or without a seiner, gillnetter, or troller, or by gaff or traditional Indian methods. 141 Indian bands involved in fishery.	The Indian fishery or Native food fishery.
Com	mercial		
a)	Seine	537 vessels (an average of 5 persons/boat, so a total of 2,685 fishermen)	The Seine fishery (by "purse" seining)
b)	Gillnet	2,058 vessels (an average of 1.5 persons/boat, so a total of 3,087)	The Gillnet fishery (by entanglement)
c)	Troll	1,983 vessels (an average of 2.5 persons/boat, so a total of 4,957 fishermen)	The Troll fishery (by hook and line)
·		Therefore the total number of commer salmon fishing boats is 4,577 and, the total number of commercial salmon fishermen is 10,729	cial
d)	That portion of the above seine, gillnet, or troll vessels rented or owned by Indians		Native commercial fishery
Spor	t (Auditor General,	1986)	
		Rod and reel only 400,000 licensed sportspeople	Sport fishery

Note. Unless otherwise indicated, statistics are from the Department of Fisheries and Oceans [DFO] (1984); computations and descriptions in brackets are the authors).

The commercial fishery.* The commercial fishery is subdivided into three sectors or fisheries; gillnet, seine, and troll. The average wholesale value of all of the salmon taken by these three commercial fisheries for the 12 years prior to 1986 was \$253 million. The high of \$512,000,000 in 1985 contrasts with the low of \$99,000,000 in 1975 (B.C. Ministry of Environment and Parks, 1986). Biological variability in the numbers of returning salmon, coupled with the economic variability of the Canadian economy as a whole, combine with the very complex and variable nature of the supply/demand equation for salmon worldwide to lead the industry through spectacular economic highs, and very distressing economic lows.

The industry employs approximately 20,000 people (full time and part time) in both harvesting and processing. It remains the most important activity in over 40 communities in British Columbia. However, about 55% of the salmon fishing vessels call Vancouver, Southern Vancouver Island, or Prince Rupert their home port (Department of Fisheries and Oceans, 1984). About 17% of the commercial salmon fishermen on the coast are Indians (see appendix 1). Although in 1977 the processing companies owned about 9% of the fishing vessels on the coast (including about 24% of the seine vessels) (Gislason, 1979a), most vessels are now owner-operated. In 1985 the salmon caught by these vessels was processed by some 105 licensed processors, of which about 16 were licensed to can salmon (B.C. Ministry of the Environment and Parks, 1986).

*Statistics from Auditor General's Report to the House of Commons, 1986, unless otherwise indicated.

<u>The sport fishery</u>. Recreational fishing is a popular activity among the residents of British Columbia, and is also an important component of the tourist industry in B.C. The 400,000 people who were licensed to fish for salmon in tidal waters in 1985 took about 4% of the total salmon catch in the province (Auditor General, 1986). Government officials estimate that this sport generates economic activity that provides employment for about 2000 people in B.C. (DFO, 1984).

Table 2 shows the catch of salmon by sector (from Pearse, 1982, p. 10).

The Management Authority

Under the <u>British North America Act</u> of 1867, and in the more recent <u>Constitution</u> <u>Act</u>, 1982, the Federal Government of Canada was delegated the responsibility to make laws for "sea coast and inland fisheries." This remains the case today for the salmon fisheries, where the regional offices of the Department of Fisheries and Oceans administer and regulate the marine fisheries under the <u>Federal Fisheries Act</u>. The first priority of management is conservation, or the enactment by government of laws that will ensure the biological continuity of the fisheries resources (Department of the Environment, 1976).

As property rights are delegated to the Provinces under the <u>B.N.A. Act</u> and subsequently the <u>Constitution Act</u>, jurisdictional overlap causes a number of problems in management of habitat, freshwater fisheries, and mariculture. It is important to remember that issues involving property rights, such as aquaculture, are under the aegis of the province, while "common property" resources are under the jurisdiction of the federal government. This has led to uncertainty, confusion, and even suspicion between the two public services (Pearse, 1982). The provincial government officially regulates the fish processing sector of all Pacific fisheries, under the authority of the provincial Fisheries Act. It is worth noting that the "sea coast" fisheries remain the only natural resource in British Columbia that is not administered and regulated by the provincial government.

<u>The managers</u>. The Pacific Region of the Department of Fisheries and Oceans managed a budget of \$110 million and 1,306 person years in fiscal year 1985-1986 (Auditor General, 1986).

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	Co1	<u>nmercial Fi</u>	shery									
	Seine		Gillnet		Troll		Sport Fish	ery	Indian Fisl	hery	All Fisheries	
	thousand	s .	thousand	3 .	thousands		thousands	3	thousands		thousands	
	of fish ^a	percent	of fish ^a	percent	of fish ^a	percent	of fish ^b	percent	of fish ^a	percent	of fish	
Sockeye	2.013	25	3.045	52	262	6			377	6	5 788	
Chum	1,328	45	1.341	49	21	1	ŏ		57	2	2,749	
Pink	6,380	69	1,421	15	1,408	15	25	.5	37	.5	9,271	
Coho	492	12	447	11	2,550	61	615	15	55	1	4,159	
Chinook	65	4	136	8	1,122	66	355	21	32	2	1,710	
All Salmo	on 10,268	43	6,390	27	5,464	23	995	4	560	2	23,677	

^a 1971 to 1980 10-year average.
^b Most recent estimates.

From: Pearse, 1982, p. 10.

The primary objective of the Department is to protect and conserve fish. But, beginning in 1976, the Department officially began to seek the objective of "best use", which is defined by the sum of net economic and social benefits (Department of the Environment, 1976). Recently, this has been summarized as aiming "to maintain and develop the economic and social benefits of the fisheries through proper management and regulation of the fisheries" (Auditor General, 1986, p. 10). The formal inclusion of such social policy in the <u>Fisheries Act</u> was first undertaken with the passing of Bill C-32 in 1985.

Control of the Department of Fisheries and Oceans is directed by the Minister of Fisheries, an elected member of parliament appointed by the Prime Minister of Canada. The Minister of Fisheries and Oceans delegates his authority through a Deputy Minister and an Assistant Deputy Minister to a Director General of the Pacific Region, who administers management and research on the Pacific coast from a Vancouver headquarters. The Director General's responsibilities are delegated to three coastal managers who further delegate to ten district supervisors (Pearse, 1982). The following quotes offer a definition of the duties, powers, and economic interests of Canadian fisheries managers. The first two are from the official public testimony of Mr. Tansley, a senior Federal fisheries manager, and the last is from a newspaper article by Dr. M.C. Healey, a fisheries scientist:

The loyalty that a civil servant has for his minister, for the policies of the Department and the government, for the laws passed by Parliament must be absolute. (Pearse Commission Proceedings, 1981, p. 13815) On regulation in particular, let me say a word on that. We have -- we intervene in people's lives perhaps more than any other federal department, and in many ways, fisheries management is almost a case in income distribution, and we are very keenly aware that every move we back hits people in the pocketbook. . . . (Pearse Commission Proceedings, 1981, p. 13849)

D.F.O. staff have a tremendous stake in the fisheries they manage. Their livelihoods and feelings of self esteem depend just as strongly on the well-being of the fishery as do fishermen's. (Healey, November 1982, p. 5).

<u>Consultative arrangements</u>. The fisheries managers maintain an ongoing consultation and communication process with the user groups and the general public. Consultation is considered necessary (by the Department of Fisheries and Oceans) "to assess public aspiration for the resource and to obtain the advice of user groups for short and long term management" (Pearse Commission, 1981, Exhibit #193, p. 2).

From 1980 and 1987, the most important body in the consultative process was the Minister's Advisory Council (MAC), a council of senior industry members and fishermen representatives which advised the Minister of Fisheries and Oceans on fisheries issues and policy, and served as a sounding board for proposals forwarded by the Minister. In 1987, MAC was officially restructured into a new body called the Pacific Area Regional Council (PARC), a smaller, more structured forum intended to carefully include all of the perspectives of the many fishery user groups:

It will look at the whole picture--it will advise from the perspective of the whole fishery rather than the perspective of any one user group or one fish resource. (Siddon, 1986, p. 14)

The commercial fishery groups then formed their own consultative body, called the Commercial Fishery Industry Council (CFIC), to provide its own advice on management issues. This group was formed at an ad hoc meeting of industry representatives some six months after the MAC council was officially dissolved by the minister, and its twelve charter members are largely the same groups which sat on MAC (Clark, 1987).

Recently, the concept of "co-management" of fisheries resources has been used to describe both the fisheries component of the comprehensive Indian claims in B.C. (James, 1984) and the ongoing planning processes (including fisheries-related matters) carried on in concert between the various Indian bands, and the Department of Indian and

Northern Affairs (A. Cunningham, personal communication, 1988), and "Indian Community Fisheries", as was proposed in 1986 in a joint paper by the Minister of Indian Affairs and the Minister of Fisheries and Oceans (Department of Fisheries and Oceans & Minister of Indian Affairs and Northern Development, 1986). The term "co-management" is now also commonly used to describe the process of co-operative fisheries planning and management involving the Federal regulatory authorities and the sport and commercial user groups, and one DFO discussion document (Department of Fisheries and Oceans, 1985) even discusses "possible co-management contracts between fishermen and the DF0."

The commercial, the sport, and to a large extent the Indian user groups, obtain access to the salmon resource by means of their licenses of access, and must abide by the regulations set and enforced by the federal authorities. But, the actual catches of fish by each group vary from year to year according to inseason events. To stay within the bounds of political acceptability, inseason managers must attempt to abide by the pre-season allocation agreements struck within the industry. These annual allocations involve so called "historic rights", which generally reflect the recent status quo in terms of gear type allocation. The following quote from a DFO discussion document, dealing with long run salmon management planning, outlines the political importance of the maintenance of these gear sector allocation balances in terms of the development of successful resource planning:

Since all users (commercial, sport and Indian) and commercial types (seine, troll, gillnet) draw from the same pool of resources, they will compete with one another to protect their shares. These groups are resistant to regulatory change because they have adapted themselves to the prevailing system. In general, user groups and gear types will accept reduced harvest now for future gains only if the present loss and future gains are shared equally. Therefore, the maintenance of

historic allocations would seem to be a desirable feature of any stock rebuilding strategy. (Department of Fisheries and Oceans, 1985, p. A4-11)

Professionalism in the sphere of management authority. The senior administrators in the Department of Fisheries and Oceans, who assume the major responsibilities of management, are now predominantly professionals trained in fisheries biology and in engineering (Pearse Commission, 1981, Exhibit 96). The conceptual basis of current salmon management is stock-recruitment theory (Healey, 1982). However, the majority of the formal public analyses of the B.C. salmon fisheries have been undertaken by economists (examples are Department of Fisheries of Canada, 1960, Department of Fisheries and Oceans, 1978, Department of Fisheries and Oceans, 1980, and the Pearse Commission, 1982). The economics of fisheries management is the conceptual basis for these economic studies (Scott & Neher, 1981).

Table 3 shows a list of the stakeholders in the B.C. salmon fisheries.

Official "Problems" in the B.C. Salmon Fisheries

The 1986 Report of the Auditor General

In 1986, the Auditor General of Canada made an extensive "value-for-money" audit of the Pacific Region of the Department of Fisheries and Oceans. The audit cited the 1982 report <u>Turning the Tide: A New Policy for Canada's Pacific Fisheries</u> (the Pearse Report), as being the most comprehensive of a number of other recent reports on the fishery.

The Auditor General's report outlined "four persistent and aggravating problems" in the Pacific fishery:

- 1. The problem of the excess capacity of the fleet
- 2. The problem of overfishing and the need to rebuild stocks
- 3. The inefficiency of the overall regulatory and management framework

Table 3

A List of Stakeholders in the B.C. Salmon Fisheries

Direct economic interests	Approximate number of people
Commercial fishermen (skippers and crewmen, including registered Indians who fish with fish boats)	10,729
Fish processors (workers and proprietors)	
Sport fishingindustry supported workers/proprietors	2,000
Western Region of DFO concerned with salmon management	some fraction of total DFO (Pacific) 1.306
Ottawa officers of DFO concerned with salmon manage	gement
Indian food fishermen (licensed annually)	
Indian food fish recipients	some fraction of
Sports fishermen (as a fraction of total who are licensed) who actually harvested and eat or give away salmon	55,000
The public of Canada (who incur the costs of resource management and protection)	
Indirect Economic Interests	
That portion of the tourist industry catering to the needs of sport fishermen	
That portion of the service and retail industry catering to the needs of the commercial fishermen and fish processors	
Profound cultural and esthetic interests	
Members of Indian bands with a traditional cultural affiliation to salmon	
Sport fishermen (total of who purchase licenses)	400,000
Observers of spawning salmon	
Consumers of B.C. salmon worldwide	

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4. The cyclical economic problems of the fisheries fleet, such as over-investments (partly brought on as a result of income tax policies like the accelerated capital cost allowances), uncertain incomes and high debts.

The report summed up the consequences of not dealing with these problems with the following statement:

... the total processing and harvesting costs (boats, fuel, employees, plants, and equipment) and the government costs of the fishery are approximately equal to the value that the fishery produces. Thus, under the current management and regulatory framework, the average fishermen, the government, and the taxpayer are barely breaking even with this valuable resource. (Auditor General, 1986, p. 16)

The audit noted that the Pearse Commission had estimated the potential biological yield of the salmon resource. The auditors converted this yield into wholesale value and assumed current product mix and average prices. On this basis, the potential annual increase in wholesale values would be somewhere between \$300 million and \$700 million above present values.

Thus, from the Auditor General's perspective, the B.C. salmon fishery is structured in such a way that, a) potential social and economic benefits cannot be achieved because it is extremely difficult to ask an economically marginal industry to forego harvesting opportunities in order to rebuild stocks, and b) costs of management and regulation remain much higher than need be, imposing an unfair burden upon the owners of the resource, the Canadian public.

The Example of TURFs as a Problem-Solution to the Problems of the British Columbia Salmon Fisheries

The Auditor General's report targeted ways in which the Department of Fisheries and Oceans could reduce or streamline its budget. However, the major problems within the fishery itself that it outlined were similar to the findings of the 1982 Pearse Commission.

Clearly, the Auditor General's report reflected strong support for the economic theory of fisheries management as the conceptual base for formulating solutions to problems in the fisheries. However, the Auditor General's report also noted that a number of key recommendations in the Pearse Report had not been implemented.

A number of the major recommendations of the Pearse Report related to the concept of territorial use rights in fisheries (TURFs), a management concept that has only recently been accepted in the field of fisheries economics (see glossary for definition). This concept is seen as yet another, and perhaps one of the most effective, means to do away with the "common property" problem that tends to make fisheries not only unprofitable but extremely expensive to manage. Within the TURF options outlined by Commissioner Pearse, one in particular proved to be extremely controversial:

The Department's program for mariculture leases should include ocean ranching operations based on development of natural stocks and artificial production. (Pearse, 1982, p. 149)

At a meeting of the MAC Council in January of 1983, representatives of the major user groups from within the fisheries met and voted to oppose ocean ranching, since it had the "connotation of exclusive right of harvest". Subsequently, at a press conference in Vancouver on February 19, Fisheries Minister Pierre De Bane concurred with this and other recommendations of MAC council and it was shelved as a management option.

Framing The Research Problem

Rational/Technical Fisheries Planning and the Problem of Political Acceptability

It is clear that in recent years the exercise of defining the problems within the fisheries and the subsequent proposing of specific problem-solutions has been mainly the product of the rational/technical approach provided by economic analysis. This economic analysis could perhaps be more succinctly defined as "bio-economics", as the science of biology has in fact become integrated into the comparatively new field of fisheries economics.

Equally clear is the fact that a number of the regulatory measures proposed by the latest economic analysis, the Commission on Pacific Fisheries Policy of 1981-82, have not proven viable (Department of Fisheries and Oceans, 1985b). Other measures that have been used in recent years, such as the introduction of limited entry licensing, have seen very imperfect implementation (Pearse, 1982). Subsequently, regulatory implementability has become a concern of fisheries scientists, and "political feasibility" is a term that appears more and more in the literature of fisheries management.

Economists such as Rettig (1984), note that shifting the sole responsibility for the design of any fisheries management program to "the fishermen" is really giving some groups an advantage over others. Some groups and individuals will always speak and act with more persuasive power than others; therefore, regulators must take pains to accommodate "the silent majority." Rettig advocates that fisheries managers "stay in touch" with all of the people affected by their decisions, and that integral involvement with fishermen in the design of fisheries management measures is necessary.

Similarly, economist Thomson (1983) notes that cooperation is essential to the success of government legislation that seeks to control, limit, or direct, fish-capture activities. In fact, we conclude that as the fishermen's attitudes and reactions largely determine how workable any regulation will be in practice, the fishermen should be consulted and involved at all stages of the decision-making process.

Biologist Larkin (1982) also suggests that openness, public participation, and decentralized fisheries management are worthy objectives. Recently, biologist Pringle (1985) has suggested that good biological management can follow from a mutual understanding (between user and manager) of resource-based science.

In the B.C. salmon fisheries, much progress has been made in this regard. Since 1977, managers of the Salmonid Enhancement Program have included many sports, commercial, and Indian advisors in this resource development and husbandry program. Since 1980, formal consultative arrangements between government and industry (the MAC

council, followed by the PARC and CFIC councils), have progressed and developed. It is clear that such arrangements still fall far short of achieving the consensus needed for major policy change and planning.

Social Conflict and Social Stalemate in the B.C. Salmon Fisheries

The salmon fisheries of British Columbia are remarkable for the number of public inquiries that have been held. Lyons (1969) lists 15 that occurred before 1964 and 6 more have occurred since then. Public participation, or at least close public consultation, has been a feature of these inquiries which have sought to serve the public interest.

Yet, the B.C. salmon fisheries have remained deeply resistant to the application of policy reform. Both user group confrontation and government inaction have been blamed for this inability to accept change. Commissioner Pearse has described this as "a profound inertia in the fisheries, a resistance to major change in spite of general agreement that worsening conditions have made change essential" (Pearse, 1982, p. 6). A similar pessimism is echoed in a study conducted by industry participants who noted that "most topics related to our fisheries resource have been studied to death", and who subsequently feared that their own recommendations would be "shelved to collect dust while the Department's historic inertia reasserts itself" (Fleet Rationalization Committee, 1982, p. 7).

Thus, a costly social stalemate has ensued that not only inhibits change but also creates conditions conducive to the entrenchment of a number of bitter social conflicts including: contention between Indians and non-Indians, "gear wars" between different groups of fishermen, discord between sport and commercial fishermen, and ongoing confrontational relationships between many of these user groups and the management authorities. The situation, it appears, is in a state of inertia (literally "not moving"), for special interest groups appear to be actively working against any type of change,

despite the fact that powerful external forces of technological and social change are constantly sweeping the industry.

Reframing the Problem

Donald Schon has developed and defined a vocabulary designed to allow professionals to free themselves from the constricting bonds of "technical rationality", in which professional practice is purely "problem solving". In his view, the emphasis should shift to "problem setting", a process in which we name the things we will attend to and frame the context in which we will attend to them. His view is that it is "through the non-technical process of framing the problematic situation that we may organize and clarify both ends to be achieved and the possible means of achieving them" (Schon, 1983, p. 41). This work of naming and framing creates the conditions necessary for the exercise of technical expertise.

Schon argues that planning, like other professions, must recognize the tremendous importance of what he calls "reflection-in-action", in which the individual's "knowledge-in-action" leaves him in a position of knowing more than he can effectively articulate. He sees professionalism as most effective when "knowledge-in-action" is applied to areas of social learning, where ideas are constantly changing.

The Inadequacy of Centralist Planning

Schon deals at length with the modern social context of planning and, within it, the new forms of role framing that planners are adopting. Fundamental to his view of the modern context of planning practice is that planners can no longer follow the centralist planning model because this model made two assumptions that are now in serious doubt:

1. That there is a working consensus about the content of the public interest, sufficient for the setting of planning goals and objectives, and

There is a system of knowledge adequate for the conduct of central planning.
 In Schon's view, these assumptions were in doubt by the mid-1960s because:

The public at large, and planners themselves, were becoming increasingly aware of the counterintuitive consequences, the harmful side effects and the unwanted by-products of implementing plans. Plans designed to solve problems either failed to solve them or created problems worse than the problems they had been designed to solve. Some of the phenomena planners were most anxious to influence-poverty, crime, urban congestion and decay--seemed tenaciously resistant to intervention. The most broadly believed predictions (those relating to school enrollment, for example) turned out to be mistaken. Attempts to build formal, quantitative models of social phenomena foundered in complexity. Attempts to conduct social models were confounded by unanticipated and uncontrollable changes in the experimental context. Planners were found to be, sometimes deliberately, sometimes intentionally, serving interests incongruent with their espoused values. Social critics and angry political pressure groups demonstrated that plans had meanings and consequences well beyond those envisaged by urban planners. And as the perceived scope and complexity of planning increased, planners found that their techniques and models were inadequate to the tasks of analysis, diagnosis, and prediction. Planning "problems" came to seem more like dilemmas made up of conflicts, interests, and ideologies unresolvable by recourse to the facts. (Schon, 1983, p. 206-207)

The concept of the public interest, as envisioned by the planner, is especially relevant in the case of Canadian fisheries management where the manager has such a profound effect upon the incomes of so many people. The concept has been the espoused goal of the many public inquiries into the fisheries, especially in more recent times when planning in the fisheries did indeed come under the social prerogative of the professional. Following the logic of Schon, is it time to leave behind the concept of a definable public interest in the fisheries, as has been articulated by centralist planners?

By the mid-1960s, the apparent consensus about the content of the public interest--perhaps even about the feasibility of establishing such a consensus - had faded away. As the harmful consequences of centralist planning and government action were discovered, special interest groups formed around issues of injustice, hazard, and neglect. By the late 1970s, it was clear that there was no national consensus about public interest. There was rather a field of special interests: minority groups, women's groups, environmentalists, consumers' groups, advocates of health and safety at work. (Schon, 1983, p. 207)

Clearly, the same process has occurred in the B.C. salmon fisheries; strongly held and importantly different views of the public interest have developed between regulatory planners, the senior officials and the politicians under which they serve, and the diverse users group.

The Potential of Intermediary Planning Roles

Schon defines the present social context of planning as a field of institutions organized around contending interests:

Within these institutional fields, planners no longer follow the centralist planning model. They practice in relation to a growing variety of special interest groups and regulatory systems, and they have developed a variety of new or modified roles. They may function as spokesmen, strategists, or technical staff for parties to the regulatory process. They may perform watchdog functions, reviewing, for example, the environmental impact statements of developers or the affirmative action plans of government agencies. They may position themselves in the neutral space between regulators and regulated, functioning as mediators who convene interested parties, helping them to understand one another's position, to identify common interests, or to fashion an acceptable compromise.

In these intermediary roles, more like the traditional roles of the lawyer than the sometime centralist planner, knowledge must be developed and brought to bear on

issues such as these: understanding the field of actors and interests with its potentials for satisfaction, frustration, mutual constraint or mutual enhancement; formulating issue-specific targets for negotiation, mediation, or inquiry. . . . (Schon, 1983, p. 209)

Thus Schon sees three major roles for planners-in-practice today:

- 1. Advocate planners
- 2. Intermediary planners
- 3. Regulatory planners

<u>Purpose</u>

The purpose of this thesis is to adequately and accurately outline the perspectives of both the user (harvester) groups in the B.C. salmon fisheries and the modern professionals-in-practice who are struggling to manage this system. Our underlying purpose is to gain a better understanding of the importantly different perspectives of these user groups, and thus be in a position to formulate issue-specific targets for negotiation.

Such a method offers the hope of providing a new data base for fisheries planners. In particular, those planners who may seek to mediate the intense social conflicts in the fisheries will have a new tool, one which will, perhaps, help them to bring together the solid social contracts needed for the construction of viable bio-anthropological plans.

Problem Statement and Rationale

We will seek to outline the following processes:

- The history of the fisheries, with an emphasis upon the various forms of TURFs (Territorial Use Rights in the Fisheries) that have been implemented, or proposed, as fisheries policy by both managers and resource users.
- 2. The social history of the fisheries, with an emphasis upon the development of fisheries management paradigms, and the manager-user relationship.

3. The public policy process that was the Commission on Pacific Fisheries Policy, with a particular emphasis upon the comments regarding TURFs, and the type of TURF proposals finally made by the Commissioner.

The central problem statement will be: Why was the concept of "TURFs" (as defined by Panayotou, 1983; Christy, 1982) not chosen as a policy option in the B.C. salmon fisheries? In particular, we will seek to outline the development of the concept of TURFS in terms of implemented, proposed, and advocated policy. Particularly controversial policy options, these concepts have generated a lively, articulate, and well-documented debate among the participants of the Commission on Pacific Fisheries Policy our main source of data.

Statements made during the course of what became an emotional debate provide exceptionally sound data to help us define the importantly different perspectives of those involved in the B.C. salmon fisheries. It is thus hoped that this study will fill a gap in describing the seldom-detailed human components of the B.C. salmon management system.

Methodology

The methodology employed in this study is that described in a theoretical context by Rein and Schon (1986) and as a specific technique by Peacock (1986). Rein and Schon discusses at length the analysis of "frame-reflective policy discourse", in which individuals, for example, may be talking with one another about a larger policy issue in relation to which they function as agents of groups or institutions that are parties to the policy controversy. In these controversies, the participants construct the problems of their difficult policy situations through "frames".

Rein and Schon note that conventional policy analysis is concerned with choice, and ask how a decision-maker can choose rationally among policy options in order to realize his values. Frame-critical policy analysis seeks instead to identify the assumptions that underlie our apparent natural understandings and actions in a

problematic situation; it seeks to explicate the conflicting frames inherent in policy controversies so that we can reflect on them and better grasp the relationships between hidden premises and normative conclusions. Schon's framework is intended to lead to establishing greater awareness in participants' ways of framing an issue; they become cognizant of the action of initially framing a situation.

Rein and Schon's analytical technique and methodology overlap. In terms of methodology alone, the method employed here is perhaps best described by Peacock (1986). This author describes an anthropological method called "ethnographic generalization." This is a scientific form that endeavours to describe real people systematically and accurately, although in a literary way that weaves facts into a form that highlights patterns and principles. Here the message comes out not in the explicit statement of generalities but as concrete portrayal; the reader must decode the description in order to grasp for himself the underlying values so that he can imagine what others imagine. Peacock notes that such a method can never describe with complete objectivity, but through its portrayals and interpretations it can communicate human truths. Thus, the author of this thesis, though a participant in the B.C. salmon troll "fishboat" fishery, feels that this method, especially, will probably show less bias than others.

Regarding the nature of the data analysed in this thesis, please refer to "The Commission on Pacific Policy as Source Material for Policy Analysis", and to "Factors affecting public input and expression" (see chapter 6).

Materials scanned include the 14,328 pages of the proceedings of the Commission on Pacific Fisheries Policy, the written materials (briefs) submitted by these participants, historical records, books, and scientific journals relevant to the history of the fishery. The search began under the problem statement "Why was the concept of "mariculture leases' not chosen as a policy option in the B.C. salmon fisheries?" However, the issue of "mariculture leases" was not addressed by enough parties to

represent a good cross-section. The analysis was then expanded to include the broader issue of "TURFs" (as defined by Christy, 1982 and Panayotou, 1983). This encompassed Pearse's recommended concept of "mariculture leases", as well as a number of other recommendations and definable policy scenarios that were discussed by either the user groups or by the professionals-in-practice. We re-examined the Pearse Commission data and isolated the opinions of the participants regarding TURFs.

This material was extensive and the task of extracting the major concerns of the groups was painstaking, because it meant reading for content as well as meaning. Particularly relevant material often emerged when participants were under direct questioning from the commissioner (who was interested in TURF concepts, and who routinely cross-examined participants about them), or by other participants. Some points of view were encapsulated in questions put to others as well. The task was extremely time-consuming, involving frequent re-reading of the material to gain a fuller understanding of the often poorly articulated, or very briefly articulated, concepts.

Appendix 8, "The Opinions of the Participants Regarding TURFs" outlines all of the views of the participants. In chapter 6, "The Testimony of the Publics," we subcategorized these views under the major user group headings of Indian organizations, fisherman's organizations, individual fishermen, sportfishing interests, processing interests, professionals, governmental organizations, and aquaculturalists. The opinions abbreviated and summarized in appendix 8 and in chapter 6 are included in their entirety in appendices 1 through 7, along with relevant descriptive material for the larger and more important groups. For the Native Brotherhood of B.C., the United Fishermen's and Allied Workers Union, sportfishing interests, the Fisheries Association of B.C., professionals, governmental organizations, and aquaculturalists, we include lists of defined perspectives, cross-referenced to specific quotes.

Although some employment figures (for the UFAWU, and the Native Brotherhood) are included for purposes of clarity, this remains a qualitative, rather than a

quantitative, analysis of data. In no way does it attempt to be a formal content analysis of any kind, though this looked tempting at times. A formal content analysis remains simply unfeasible considering the complexity of the TURFs issue, the number of users within the three major user group categories, and the diversity of individual methods of expression. In fact, the normative aspects of this analysis enable a valuable scientific description simply not obtainable through formal content analysis techniques, which could never capture the perspectives as well as thoughtfully composed prose.
Chapter 2

Untangling the User Group Web: The Influences of History

The contemporary fisheries and their management represent the evolution of the unique social, political, and economic history that has developed in and around the activity of salmon fishing in western Canada. In order to fully understand the paradigms of modern fisheries management (chapter 3), the modern paradigms of fisheries economic theory (chapter 4), and the perspectives of the various stakeholders within the industry (chapter 6), we must first examine the history of both the fish and different fisheries.

Some More (Important) Natural History

It is important to realize that the present populations of salmon which spawn in B.C. have only invaded this region in the last 10,000 years, or since the last glacial retreat. As anadromous fishes, salmon live most of their lives in the ocean but generally return to the stream of their birth to spawn. A certain percentage of any returning stock will "wander", however, to new or different streams to spawn, hence their ability to colonize the British Columbia region. At most, 5,000 broods of pink salmon and 2,000 to 3,500 broods of sockeye, coho, Chinook and chum have effectively taken over the coast since the ice retreated, springing from their refuge in the Wisconsin Refugia (Withler, 1982).

Balon (1975), who has developed a classification scheme for the "reproductive strategies" of fishes, puts salmon in the nonguarding, brood-hiding, benthic spawning category. Moyle and Cech (1982) describe their anadromy as a way to fully utilize the food-rich ocean environment while still making use of the relatively predator-free and oxygen-rich environment of stream beds to bury their eggs.

Salmon return to their natal streams with an amazing degree of accuracy. The precision of homing is said to be due to the ability of these fish to recognize the distinctive odour of their home stream (Hasler & Scholz, 1978). Upon emerging from

their natal streams and entering the sea as juveniles, salmon follow a generally northerly flow in a counterclockwise current gyre as a band of young fish generally less than 20 nautical miles wide. They generally use the same route two to six years later, for their homing migration (Hartt and Dell, 1986).

The "bio-standards", used by the employees of the Department of Fisheries and Oceans involved in the SEP program, are averages compiled over many years that describe the proportion of the returning populations of each species and stock that is available for harvest. Chinook are the most "productive" fish (up to 90% of the returns harvestable in some cases), while chum (up to 30% of the returns harvestable in some cases) are the least productive.

A very large portion of the returning populations of salmon, then, are available for harvest. This is a result of this fish's reproductive strategy which involves death after spawning; their death almost coincides with that period in their life when they are at their largest size and are at their most valuable stage as human food. Coincidentally, salmon is one of the most economically valuable fish. The result is a remarkable social surplus, that can be harvested every year by various societal groups while at the same time insuring the future biological continuity of each stock of salmon.

This natural surplus amount of fish is now generally harvested every year in the various salmon fisheries. In fact, modern management biologists believe that, in aggregate, these fisheries usually take more than the available harvestable surplus for many stocks, with the result that the number of distinctly different stocks are declining at a rate of 1.5%/year (Auditor General, 1986). However, in comparison with attempts to manage salmon in a sustainable fashion in other parts of the world, the B.C. management regime has a good record. It has retained a larger proportion of the original numbers of stocks of salmon and is gradually but successfully bringing back a number of these stocks to levels of natural production apparent on the first coming of Europeans to the area. Alaska also enjoys a very well managed and productive salmon

fishery, but Alaskan biologists concede defeat when comparing the long-term record of maintaining salmon population levels. (In the 1950s, salmon runs in Alaska became so depleted that large "disaster" areas were closed by Presidential decree; runs in B.C. remained healthy [Pennoyer, 1979]). Thus, although the managers of today may feel they are losing ground (due to the annual loss of 1.5% of the stocks/year), the history of the salmon fisheries in B.C. is a showcase example of sustainable industrial exploitation of a wild ecosystem. The Fraser River stocks of sockeye salmon, in particular, are considered one of the greatest success stories of fisheries management and rehabilitation (Idyll, 1970). After a devastating environmental change that caused near-extinction of these salmon in 1913, they were gradually built up again, despite the constant pressures of several intense fisheries upon them, until in 1985 and 1986 run sizes exceeded those observed before 1913.

Let us now examine the development of human predation on these fish, and in particular the relations between technologies and social organizations which have evolved into our present "fisheries". Figure 1 shows the salmon river systems in B.C. (from Netboy, p. 364). Figure 2 shows the migration of major species of salmon (from Netboy, p. 371).

The Indian Fishery

The Indian fishery is the most challenging fishery to describe because it is indicative of a culture different from that of the majority of Canadians and because its definition involves complex legal and social issues. Thus, we must first attempt to describe the very different life-styles of the indigenous peoples of B.C. Knight (1978) made a very extensive review of the ethnographic literature, and noted:

Indigenous Indian societies in B.C. represented three broad types of social organization. Along the coast, Native societies were organized as chiefdoms to one extent or another. This meant that political authority was vested in a limited number of chiefly families with attendant social features we shall shortly





Figure 1.

Salmon river systems in B.C. From <u>The Salmon: Their Fight</u> for Survival (p. 366) by A. Netboy, 1973. Boston: Houghton Mifflin. Copyright 1973 by A. Netboy.

Figure 2.

Migrations of major species. From <u>The Salmon: Their Fight</u> for Survival (p. 371) by A. Netboy, 1973. Boston: Houghton Mifflin. Copyright 1973 by A. Netboy. summarize. Throughout the southern Interior (east of the coast mountains and south of the boreal forest) Indian societies were at a tribal level, mainly along kinship lines. Chiefs, while present, did not command the power they did on the coast. Throughout the northern interior, Indian societies were organized at the band level, in which the main functional groups were really multi-family camping groups. (Knight, 1978, p. 207)

These categories, then, are useful for a quick summary of Native fisheries: Coastal

"The size and concentration of settlements along the coastal groups were also much greater than in the interior. . . Coastal winter villages ranged from occasionally under a 100 to over 500 persons . . . these winter villages and their satellite hamlets were based on recurrently used fish and other resource sites. In essence, the groups which wintered over in one village were the effective tribal units" (Knight, 1978, p. 207).

Interior

"The size of settlements and political groups in the interior were considerably smaller, more fluctuating, and less coordinated than anywhere on the coast. This had more to do with the scattered and fluctuating resources available" (Knight, 1978, p. 208). Northern Interior

"And throughout the subarctic regions of northern B.C., Indian societies were typically on the band level, with summer camps of possibly a hundred people breaking down throughout most of the year into the basic units composed of extended families of up to two dozen people, more or less continually involved in seasonal moves to different resource sites" (Knight, 1978, p. 208).

Though salmon were available to some of the "Northern Interior" tribes, the majority of the salmon-utilizing peoples, within the boundaries of what is today British Columbia, belonged to the "Interior" and "Coastal" categories of Knight (1978).

Custodial Rights

Jorgensen (1980) has quantitatively documented the degree to which different Native groups in North America made use of property rights for resource access. Her findings generally support the following summary of this issue by Knight (1978):

While virtually all Indian societies had some degree of custodial rights to major food resources, the coastal groups had the furthest evolution away from basically communally owned resources. Among coastal groups, generally, all major resource sites were owned or controlled by leading families (or by the leading elements in larger clan-like groups). Chiefs and chiefly families "owned" the reef net fishing sites, sites for weirs and dip netting and spearing, the clam and camus beds, berry sites, and the primary sites for other fish resources. While the coastal chiefs may have "owned" these sites and resources in the name of their people, while they acted as administrators of their use by other band members, they did not necessarily administer them for everyone's equal benefit. Chiefs and chiefly families did receive unknown amounts of surplus from their ownership of these resources . . . the picture was rather different than the "one big happy family" or "everything shared with everybody" view of Indian societies promulgated by romantics. (p. 208)

Anthropologists Drucker (1965) and Hewes (1973) note that exclusive property rights to fisheries were a component of the chiefdoms of the salmon-fishing regions of the Pacific Northwest. Duff (1959) discusses the territorial laws of the Kitwancool of northern B.C., and notes that if an unauthorized person was found within the territory of another clan "his or her life would be taken." Rogers (1979) also notes that groups within the Tlingit of southern Alaska also had "the perfect right" to kill intruders who caught fish within their territories. Ellis and Swan (1981) note that among the Manhousat of Vancouver Island, the head-chief owned all of the resources within his

tribal territory. The head chief would authorize the harvest of resources and tribute had to be paid to him, even by members of his own tribe.

The Extent of the Pre-Contact Indian Fisheries

Hewes (1973) gathered figures that estimated the pre-contact Indian consumption of salmon and speculated that the large early commercial catches probably represented an abundance not seen for many centuries. Since the fish were given a "resting period" as Indian populations and (Indian fisheries) declined fish populations exploded. Carrothers (1941) estimated that each Indian family in the Skeena River headwaters area took about 1000 salmon/year, or 583 lbs/person/year.

The amount of salmon harvested by the pre-contact Indian populations appears to have been a function of the amount that could be effectively preserve by smoking or smoke-drying; seasonal harvests were of relatively limited use and could not become a surplus for the winter months unless they were immediately and effectively preserved (Knight, 1978, p. 217).

Bouchard and Kennedy (1975) have probably best described the process of drying salmon in many areas of B.C. They noted that the hot dry winds of such areas as the Fraser River canyon enabled Indian processing of much greater volumes of salmon than was physically possible in the more rain-shrouded coastal areas.

The Advent of the Industrial Fisheries

In B.C. only, the <u>Douglas Treaties</u> on Vancouver Island specifically addressed Indian fishing (and other) rights. Otherwise, a "liberal" policy was first applied to the question of Indian fishing rights by the colony. This policy was officially transferred to the federal government under the terms of union (for Confederation) in 1871 (Department of Indian Affairs and Northern Development, 1985). Although from 1872 to the present day the two governments have been unable to agree on how to deal with the issue of Native title, the federal department of fisheries has made various allowances for Indian fishing. An example is the allowances made for "the

noninterference with Indian fishing privileges" mentioned in social policies applied to operating criteria for the "drag seine" licenses (Lyons, 1969).

The development of the industrial fisheries, with the new uptake of salmon biomass in downstream fishboat fisheries, did not cause a major military or political uprising among the Indians. For the most part, they were either too isolated from the regulatory activities to be affected, or they were too depopulated (mostly through disease) by the effects of contact with the new European culture to respond.

It is important to note that aboriginal rights to fish were not negotiated away, nor lost through military defeat, a detail which subsequent governments were able to overlook as the declining populations of physically distressed Indian peoples were overwhelmed by the activities of the European settlers. It has been only recently that the Indian populations have increased and became more politically active. In particular, they were successful in having existing aboriginal rights included in the newly repatriated <u>Constitution Act</u> of 1982.

As Duff (1977) documents, the population of the Native people of the Province endured a severe decline in the 1860s that began in the 1780s; by 1900 scarcely 20,000 Native people were left. (Duff estimates that the pre-contact population of the Native people of the province must have been at least 70,000.) Throughout most of B.C., the hunting and gathering way of life was dominated by the white man's economy; Native peoples had no choice but to enter this economy (Duff, 1977). Although some tribes were able to resist the new socio-legal system (see Pinkerton, 1987b), most found their roles as custodians of local land-based tribal fishing rights replaced by such economic options as fishing from a company-owned fishing vessel. In this new fishery, the Indians were at first in the majority but in a very short time they found themselves competing with many non-Native fishermen, including many of Japanese descent, in a new "common property" commercial fishery where fish was a commodity in an industrial economy.

Indians caught and processed (dried) large quantities of salmon for the H.B.C.; this was then an "industrial" fishery (Pinkerton, 1987b). Industrial processing of fish caught by Indians was begun by the Hudson's Bay Company in the 1850s and expanded rapidly in the 1870s with the advent of canning as a method of preservation (Ralston, 1968). Soon, industrial harvesting of salmon was larger in scale than most of the Indian traditional fisheries. Indian energies, especially in the coastal regions, were increasingly directed toward the new commercial fisheries.

Indian Participation in the Fishboat Fisheries

In 1883, almost all of the 3,000 fishermen employed by the canneries were Natives (Netboy, 1973). However, by 1919, almost half of the licenses were held by Japanese immigrants (McKervill, 1967). By 1926 there were 3,352 fishing licences issued to Indians out of a total of 11,750 (Allied Indian Tribes of B.C., 1927). In 1962, only 2,300 of the 15,000 fishermen on the coast were of Native blood (Netboy, 1973). Extrapolating from the data of Gislason (1979b), we can assume that about 17%, or 1,836 of the 10,729 fishermen on the coast are Indians. A large percentage of these Indian people work aboard processor-owned fishing vessels (details on Indian participation in the fishboat fishery are included in appendix 1).

Duff (1977) noted that it was in pursuits related to their former way of life that Indians were able to enter most fully into the modern economy. Foremost among these pursuits was commercial fishing and cannery work. However, this meant that as Indians assumed the role of employees in a new social system of fishing where the resource was now considered "common property", they gradually became the regulated and controlled as opposed to the regulator and the controller. But, their reward was a steady access to money which they could use to acquire the goods of the new, and irresistible, industrial economy. As Pinkerton, (1987b) documents: "The fishing industry thus became an enclave for Indians where they could acquire credit and job security largely unattainable elsewhere" (p. 257).

As wards of the government under the Federal Indian Act, the Indians were not allowed to own their land; this remained within the complete control of the Crown. Thus, they were denied real entry into the industrial economy by this Act, which still rules them in most areas of the province. As fishing vessels have become more expensive due to the increasingly costly investments needed to compete in the fisheries, the Indian people have found themselves in the difficult position of constantly seeking support from the federal government to retain their economic status in the fishery. By 1982, the Department of Indian and Northern Affairs had spent \$30 million in programs such as the Indian Fisherman's Assistance Program and the Indian Fisherman's emergency assistance program. The present level of Indian participation in fishing is a testimony not only to their very obvious expertise, in both fishing and in small business, but also to their well-developed ability to effectively lobby the government for funding. During the Commission's hearings, the Native Brotherhood noted, with pride, that of the participants in the Indian Fishermen's Assistance Program, 91% had repaid their loans in full (Pearse Commission Proceedings, p. 8914). But although this and other elaborate schemes have been set up to try and reverse the trend, Indian participation in the "fishboat" fishery continues to decline. In entire regions, Native Indians find themselves sitting ashore watching the fishboat fleet work. The Pearse Commission (1982) probably gives the best description of these developments. Clearly, the temptation for Indian fishermen to sell their licenses and enjoy the proceeds has been strong. There can be no doubt that this has represented one of the few individual wealth realization possibilities among Indian people.

The issue of retention of Native participation in the modern commercial "fishboat" fisheries is not a legal nor a legislative issue, but simply a policy intention. The federal government has exercised a commitment to retaining a "traditional" percentage of Indian operators of fishing boats and it appears the decline may soon be halted.

As a final point, it is interesting to note that a detailed statistical analysis of the fishing movements of Native fishboat operators shows conclusively that these fishermen display a very low mobility, and in fact limit most of their fishing activities to waters close to their home port (Environment Canada, 1978). Hence, it can be concluded that many modern Native "fishboat" fishermen continue to fish within their own defined TURFs.

The Legislated Introduction of the Indian "Food" Fishery

Beginning in 1888, the federal "British Columbia Fishing Regulations" came into effect. These regulations allowed for the Minister of Fisheries to control Indian "food" fishing. Various changes in these regulations have been made over the years, perhaps the most important being the result of a petition of a group called the Allied Tribes of Canada, who in 1927 asked that in all fishing districts certain waters be preserved for the exclusive use of Indian bands or tribes in these localities (Allied Indian Tribes of B.C., 1927). The then Director of Fisheries, who was being questioned, admitted that for a period of some 20 years whole inlets and portions of inlets were allocated to canneries and large fishing concerns. Since this time, exclusive permits to fish for food that have specified the area, time, and type of fishing gear have been issued to Indians. This form of fishing rights, permitted under the authority of the Federal Minister of Fisheries, became the only legally recognized form of aboriginal fishing rights. As Netboy (1973) points out, this action prevented the loss of the idea of Native fishing rights. For, as Pinkerton (1987b) and Rogers (1979) also point out, in the Indian "food" fishery, Indian groups continue to fish for subsistence according to the patterns laid down by traditional rights.

The Aboriginal Right of Fishing Under Canadian Law

The long and complex legal developments regarding existing aboriginal fishing rights in British Columbia are beyond the bounds of this thesis, except for a few brief comments.

From the perspective of British law, the Hudson's Bay Company had an exclusive charter which expired in 1859. This company "held control of the mainland fisheries by virtue of its right of exclusive trade with the Indians there . . . under the H.B.C.'s tenure there had been no restrictions nor interference in respect of fishing by Indians or other British subjects" (Lyons, 1969). In fact, salmon purchased from the Indians "as early as 1829" and pickled in barrels for export was considered the first commercial fishery in the province (Fisheries Association of B.C., 1955). Thus, in these early days the Indian right to fish, like the Indian right to trap, was respected for economic reasons; as the HBC had the sole right to trade with the Indians, other harvesters (who might not sell their products to the HBC) were not welcome.

Beginning in 1860, salmon fishing was, under British law at least, a "common property" activity, with special allowances being continually made for the nonindustrial use of fish by Indians. The British legal concept of "common property" can be traced to its statutory origin, the Magna Carta of early England. It expressly states that there existed an inherent right for any British citizen to fish in public waters. The nobles who forced King John to sign the charter were especially keen to see that he did not operate kydells, or fish traps (Wildsmith, 1982).

Thus, the early colonial governments of B.C. mostly got away with not having to recognize the very real British legal concept of aboriginal (fishing, etc.) rights (the <u>Douglas Treaties</u> and Treaty 8 in N.E.B.C. are the exceptions). Today, the issue has come back to haunt modern governments, for from the Indian perspective, Indian sovereign rights, including fishing rights, have never been extinguished.

One of the most recent developments in aboriginal fishing rights is <u>Sparrow versus</u> <u>The Queen</u>, which ruled that although the aboriginal right to fish is superseded by the federal government's authority to conserve salmon stocks, this right to the resource takes precedence over the rights of other users; Native food requirements must be met

first. A more specific definition of aboriginal "food" fishing, in terms of the proportion of the harvestable salmon it entails, still remains to be settled before the courts.

But who are the people that man the other fishboats? Let us now turn to an examination of the history and development of the fishboat salmon fishery.

The Commercial Fishery

To briefly summarize the history of the commercial fishery of B.C. is a demanding task, for this industry is, second only to the fur trade, the oldest industry in the province. The importance of this long history cannot be understated since the fishing industry, like any really old industry, carries with it the social baggage of times past. Although some economists talk of the inefficiency of this industry, let us first try to understand how these old technologies and social relations originated, and in many cases, became institutionalized.

We should also note that prospectors on their way to the Fraser River gold rush of 1858-60 were very dependent upon salmon procured from the Indians for their food supply (Lyons, 1969). This aboriginal method of mass preservation of salmon, which was particularly effective in the windy and hot canyons of the Fraser and Thompson rivers, had already led to the extensive use of dried salmon by the first industrialists in the area, the early fur traders. So there is no doubt that a portion of the Indian catches of this period entered into the industrial economy, and was therefore a "commercial" fishery.

As an industrialized food production process involving foreign export, the commercial fishery began with the activities of the Hudson's Bay Company. They obtained salmon caught in traps near the mouth of the Fraser River or purchased it directly from Native Indian people (Lyons, 1969). This salmon was salted in barrels for shipment elsewhere. Soon afterwards, a lucrative salmon canning industry began.

Ralston (1968-69) has refuted the claim of other historians that the western United States had the most profound influence upon the social and especially economic life of

B.C. via the heavy involvement of Californian interests in the 1858 Fraser River gold rush. This author's main argument has been to detail the extent of the British entrepreneurial influence which he considered decisive in the successful launching of the salmon canning industry of B.C.

Ralston's article is interesting because it highlights the powerful entrepreneurial drive that marks the beginning of the industrial fishery. The commercial fishery only began in earnest after some technologically innovative entrepreneurs, the early canners, developed methods to preserve salmon and to pack it on a large scale. As a profitable venture, this attracted other businessmen who were faced with the two major problems of labour and access to fish. Perhaps most important to remember, in terms of labour, is that the 1870s and 1880s were an era when employers were not subject to any labour legislation or unions. Add to this the seasonal nature of the fishing business, and a picture emerges of an informal relationship between employee and processor, even for that era. Salmon, as highly valuable fish, offered the promise of good profits on years when fish returned in huge numbers. But canning was an expensive process, so there was naturally a push to keep labour costs as low as possible, and to pay as little as possible to the fishermen for their goods. Thus, it is understandable that trade unionism began early in the fishing industry, and that the ideology of trade unionism became firmly established among the workers and even among many of the fishermen. (Gladstone [1959] and Gladstone and Jamieson [1950] have documented the long and particularly turbulent labour relations in the industry.) It was a classic case of early capital, in its drive for profitability in what was, from the onset, an extremely competitive and risky industry, giving rise to a labour force that felt exploited. This feeling of oppression is still alive in the industry, particularly within that segment that is vertically linked to the processing sector; this group sees trade unionism as the only realistic means of doing business with the fish processors.

In 1871, British Columbia entered the Dominion of Canada as its sixth province, and thus under the terms of the <u>British North America Act</u>, of 1867, the "sea coast and inland fisheries" of B.C. came under the legislative powers of the federal government. Until 1875, there were no regulations or management systems applied to the fisheries. In 1875, the <u>Fisheries Act</u> was extended to B.C., although it was noted that "there are many portions . . . which are inapplicable to this Province" (Lyons, 1969).

Government regulation of the fisheries effectively began with the enactment of the General Fishery Regulations for B.C., in 1889, which stipulated that though Native people may fish for food for themselves, fishing for salmon "by means of nets or any other apparatus whatever" was not a legal activity unless a licence was obtained from the Minister of Marine and Fisheries (Lyons, 1969).

The technologies of capture, or "gear types," used to catch salmon that have been licensed by the government have seen a long evolution by fish processors and by individual fishermen who usually worked in concert with government. Government researchers too have induced many changes. Political as well as social policy have had a great influence, leading to the outlawing of some of the most efficient forms of salmon capture. Thus, before we discuss the "fishboat fisheries" and the socio-political system that has evolved around them, let us first examine two historic fisheries that were eventually rendered illegal by government.

The Early "Drag Seine" Licenses

Lyons (1969) documents this early licensing arrangement, that was based upon land-based fishing rights:

The policy employed by the Dominion Government of granting exclusive fishing or cannery licenses on certain waters of British Columbia prevailed from 1871 to 1920. In theory this constituted a monopoly but in practice generally was not looked upon as such because of the number of canners affected and the keen competition between them. Again, usually in consideration of such permit, in addition to

yearly rental, conformity in every respect of the Fishery Laws and noninterference with Indian fishing privileges certain specifications had to be met. For instance when, on April 2, 1902, S.A. Spencer was given exclusive fishing rights in the tidal waters of Nimpkish River and vicinity for nine years, it was on the condition that he: "... build and operate a salmon hatchery for the purpose of incubating, planting and artificially stocking with the young of salmon the waters specified in this lease, such hatching operations and planting of fry to be carried on to the satisfaction of, and under the inspection of the officers of the Department of Marine and Fisheries. Further the said lessee to furnish reports upon the operations of the said hatchery to the Commissioner of Fisheries, Ottawa, from time to time as may be required." Similarly, such privileges of exclusive rights were granted in some locations with such stipulations as the use of local people in plant work, the employment of Indians in fishing or, in some places, a requirement to meet a purely local need for the benefit of a struggling coastal community, such as a satisfactory water supply for a settlement or safe harbourage for small boats. The fundamental aims of such tenure were conservation of the resource (because any individual or organization desirous of having a continuous operation would be considered in maintaining the source of supply) and employment of local people. During its existence on the whole this method gave a measure of satisfaction. As a system, its great defect lay in the fact that the door was left wide open to political interference and, as might be expected, some abuses did result. (p. 174-175)

The ultimate interference, however, was apparently the political pressure from soldiers returning from the first world war; they demanded a policy of "open fishing", and even burned the nets of one drag seine operation. By 1920, the Department of Marine and Fisheries had cancelled many of the cannery or drag seine licenses, leaving these fish to be caught by fishboat or by trap. The last of the drag seine licences

were shut down in 1967, largely due to the expense of management (J.R. MacLeod, personal communication, 1988). Previous to their termination, they were closed for some years to enable the build-up of overfished stocks.

The Salmon Traps

A method of fishing that brings instant reactions of disgust from most modern day commercial salmon fishermen is the salmon trap. Trap licenses were first issued in 1904 in an attempt "to equalize the catch between the fishermen of the two countries." This was in reference to the fact that many salmon of Canadian origin were being caught by American fishermen as they approached the Fraser River along the American shore (Forester & Forester, 1975). In 1929, the Ellis Commission even investigated the possibility of allowing fish traps on the north coast. After much public discussion, he recommended that traps be allowed in this area, apparently to allow for the tagging of salmon (to determine the country in which they were caught), as well as to increase the commercial catch. But, after heavy political pressure by fishermen who feared employment loss, this recommendation was never acted upon. In 1935, traps were abolished in Washington state, and at the same time, B.C. fishermen carried out their own lobby; presentations were made to Ottawa to advocate the abolition of all salmon traps. A subsequent royal commission, headed by Mr. Justice Sloan, investigated this issue. The Commission heard many witnesses from the coast but in the end only recommended a few regulatory changes in the trap fishery. After the war, however, almost all salmon traps were abolished in B.C. Figures in Carrothers (1941) indicate that trap fishing was more a perceived threat than a heavily used gear type; on most years less than 6 traps were operated on the B.C. coast. Argue (1970) notes that in the Strait of Juan de Fuca, 20 traps were licensed to fish in one year. However, most trap sites were found to be unprofitable, and from 1922 to 1958 only from 3 to 6 traps were operated annually. The traps took modest catches, but the volumes caught were easily

affected by salmon fishing further offshore. The last traps (these were at Sooke) were closed by their owners in 1958.

The Fishboat Fisheries

Apart from the early trap and drag seine fisheries, almost all of the commercial salmon fishing in B.C. has been carried on from fishing boats; gillnet, seine, or troll vessels participate in "net" or "troll (hook and line) fisheries". Generally, the gillnet and seine gear types or vessels are called the "net fisheries", and use gillnet or seine nets during "net openings", although single gear type openings also frequently occur. Most trolling is carried on in offshore waters, while most gillnetting and seining occurs in inshore waters.

The B.C. coast is divided into a number of management areas in which "openings" are scheduled by the management authorities. Generally, the "openings" for the "net fisheries" begin in all areas announced as "open" at the traditional start up time of 6:00 P.M. Sunday and are set by the authorities for a certain number of days. The length of the openings is determined by the number of fish available for harvest and the number of seiners or gillnetters within striking distance of the area: When few boats end up harvesting a big run openings can be nonstop, but large fleets on small runs result in very short openings. The troll fleet generally works within a different regime of more expanded areas than the net fleets, with seasonal opening and closing dates. Like the net openings, troll seasons have tended to become shorter in recent years.

This fishboat fishing is carried on by vessel owners who, before 1969, were required only to purchase an annual fishing license; after that date, license limitation was in effect. Except for the single-gear opening mentioned above, these vessels remain licensed to fish anywhere on the coast, with the single exception of the twoarea troll system in the Gulf of Georgia.

Area licencing for salmon, or the licensing of particular numbers of boats for coastal areas (in terms of the most popular conceptualization, the coast is divided into

three areas), is a management option never implemented by government but well-known in the fishing industry. Sakata (1985) has made an exhaustive socio-biological analysis of five different area licensing configurations within the context of the B.C. salmon fishery. The area licensing concept has been implemented in the state of Alaska, where fishermen now purchase area permits to fish with a specific type of gear in specific coastal areas. The system in Alaska, implemented in 1977, was accompanied by elaborate social policies. Direct financing of permits is prohibited, and the permits issued are to be held only by individuals (Adasiak, 1979).

In 1927, a "deputation representing canners, fishermen, and government" went to Ottawa to lobby that, among other measures, "the coast of British Columbia be divided into fishing areas of such proportion as to support the plants in these areas . . . that the maximum amount of gear to be fished in each area . . . be stated on the regulations" (Lyons, 1969, p. 371). However, after extensive government consultations with west coast fishermen and operators, "it was deemed politically unwise to take government action on any of these suggestions" (Lyons, 1969, p. 372).

McKervill (1967) notes a social policy enforced by the Federal Fisheries that reflects a deeply racist Canadian era; in the years following World War One, a "quota" of Japanese gillnet fishermen was established for each fisheries district. These fishermen were not allowed to travel to other areas of the coast although non-Japanese were, and until 1930 these men were not allowed to install engines in their boats, while, since 1928, non-Japanese were.

Today, most commercial fishermen's organizations, and in particular the UFAWU, remain vehemently opposed to any form of "area licensing"; gillnetters and seiners, and most trollers, are free to roam the entire coast in search of profitable catches of salmon. However, the majority of these fishermen fish specific areas or regions, rather than continuously travelling for huge distances (Sakata 1985).

The gillnet fishery. While the first commercial fishing was carried on slightly upriver, by 1881 the principal fishing grounds were at the mouth of the Fraser River. The most efficient and cost-effective method of catching the fish at that time was the oar and sail powered gillnet (Stacey, 1982). These nets, once made of linen and now of nylon, are set to entangle salmon, usually by the gills. In the early days, these nets were set and pulled aboard the open skiffs by hand; today they are set and pulled by means of powered drums, or rollers, that mechanically reel in the net as sportfishermen reel in their lines. In the early days, two men would fish these nets, but currently, about one half of the gillnetters fish alone.

The first managers were alarmed by the very large catches of the gillnetters. Seeking to prevent a reoccurrence of the overfishing that some of them had already witnessed on American rivers such as the Columbia and Sacramento, they advised the government to limit the number of gillnetters that could fish the Fraser river. Thus, in 1889 the Dominion Government responded by imposing a limit of 500 boats which could fish. Three hundred and fifty licenses were issued to canneries and 150 to "outside" fishermen (Fraser, 1977). (The "cannery"-attached licenses were apparently one of the reasons there were so many early canneries built on the coast.) In 1891, however, after strenuous protest from both canners and fishermen, all limitations on the numbers of boats were lifted (Scott and Neher, 1981). By 1894, there were 1,426 fishing units, and by 1898, the canneries were limited to 10 licences each (Fraser, 1977).

This change in the type of licence was important because in many cases it transformed the processor-fisherman relationship from one based on daily wages and provision of company-owned gear to one in which fishermen worked on a contract or share system (Stacey, 1982). However, on the Skeena River fishery, the other major



Figure 3.

Gillnetter. From <u>The Living Land</u> (p. 130) by R.L. Haig-Brown, 1961. Toronto: MacMillan. Copyright 1961 by T.C. Brayshaw.



Figure 4.

Seiner. From <u>The Living Land</u> (p. 126) by R.L. Haig-Brown, 1961. Toronto: MacMillan. Copyright 1961 by T.C. Brayshaw.

Figure 5.

Troller. From <u>The Living Land</u> (p. 131) by R.L. Haig-Brown, 1961. Toronto: MacMillan. Copyright 1961 by T.C. Brayshaw.

developing commercial salmon fishery on the coast, the majority of the boats were actually company owned by about 1911 (Stacey, 1982).

As the number of boats and canners grew, especially at the mouth of the Fraser River, gillnetters had to go farther afield to avoid overcrowding and encountered problems with heavy seas. Accordingly, 30 foot long "Columbia River Boats" were introduced around 1889 and soon became the dominant boat type. By 1899, there were 4,829 gillnetters whose two man crews were going five or six miles out from the river mouth to fish. However, the number of boats engaged in the annually licensed fishery ranged from 3,640 to 6,620 between 1912 and 1937 (Carrothers, 1941). By 1913, over 80% of the Fraser River boats were driven by gasoline engines and had small wooden "houses" built on them to protect the fishermen from the weather (Stacey, 1982).

The increasing seaworthiness of the gillnet fleet eventually enabled it to range much further and to fish in exposed and turbulent areas. In 1936, gillnetting began in Johnstone Straits (Gladstone, 1959), an area that was to become increasingly important for both gillnetters and seiners. This fishery tended to target upon salmon heading for the Fraser River, thus gradually extending the fishery for these fish farther and farther from the mouth of the river.

In 1969, the year that limited entry was introduced in B.C., there were 2,462 gillnetters (Sinclair, 1978), and by 1984 their numbers had been reduced to 2,058 as a result of "pyramiding" of smaller licences to make larger boats, and the government buy-back program (DF0 1984). See Figure 3.

The seine fishery. Purse seiners trap salmon in a large net which, usually after a waiting period, is "pursed" about the fish, drawn closed, and then heaped or drummed aboard the vessel. As with the gillnet and troll gear types, acquired knowledge by fishermen of strategic migration locations and times, as well as technological developments, has gradually increased the effectiveness of this method of fishing.

During heavy "runs" of salmon, skilled seiners can take the largest volumes of any of the salmon gear types.

Purse seining began with the advent of the gasoline engine in the 1900s (Stacey, 1982). From the first, seiners were larger than gillnetters; thus, they were able to venture much farther afield. In addition, they were able to more easily catch all of the species of salmon in their encircling nets (see Figure 4). Five men on average crew a salmon seiner. In the early days, the nets were pulled by hand; today drums, somewhat similar to gillnet drums (but much larger and stronger), are the latest in a long line of technological developments.

Between 1912 and 1937, the number of seine licences issued ranged from 61 to 552 vessels (Carrothers, 1941). The gradual elimination of the land-based drag seines, particularly in the years after World War Two, stimulated the growth of the seine fleet, as did a policy at that time to give seine licenses to Indians (J.R. MacLeod, personal communication, 1988). In 1969, the year limited entry was introduced, there were 286 seiners, but by 1984 their numbers had increased to 536. This resulted from the "pyramiding" or putting together of smaller troll or gillnet licences to make seiners.

Like gillnetters and trollers, replacement vessels have generally been larger than the old vessels, and sophisticated methods of quality control are now being installed as well.

According to the Fishing Vessel Owners Association of B.C., modern seiners range from 40 to 132 feet, with the majority in the 50-70 foot range (Pearse Commission, 1981, Exhibit #94). See Figure 4.

The troll fishery. Commercial trolling for salmon began in about 1899 and was carried on, at first, from rowboats (Forester & Forester, 1975). This type of fishing resembles sportfishing in many ways: Salmon are caught individually with hooks and lines, generally in the more exposed areas of the coast, where salmon are feeding and growing, rather than congregating close to their stream of origin. The large and

valuable Chinook salmon were the initial targets of this fishery, which was originally developed in northern B.C. Carrothers (1941) notes that "the use of the troll method of fishing was developed mainly in connection with the catching of this (Chinook) species." However, trollers soon targeted heavily on coho salmon and eventually began taking all of the other species as well.

The advent of the gasoline engine made trolling much less arduous and more lucrative, so that by 1910 these boats were also operating off the west coast of Vancouver Island (Milne, 1964). In 1918, power "girdies" were introduced to reel in the salmon with much greater efficiency (Forester & Forester, 1975). In addition, trollers began to put "shacks" on their vessels to improve their living conditions, and this, together with the development of flake ice as a means to keep the fish for up to ten days instead of returning daily with the catch, allowed the trollers to grow in size and seaworthiness. Thus, they began to venture ever further out to sea.

Trolling licences were first issued in 1917, and between that date and 1937, from 1,370 to 3,511 licenses were issued annually (Carrothers, 1941). Milne (1964) notes that troll licenses increased to 2000 in 1919, dropped to about 1500 during the depression, doubled during 1924-1927, remained at about 3000 until World War Two, then remained over 4000 until 1955, ending up at about 6000 in 1962. In 1969, the year limited entry was introduced, there were 2,462 trollers (Sinclair, 1978), but by 1984 their numbers had been reduced to 1,983 (DFO, 1984). This was a result of the buy-back program of the government, and of the "pyramiding" of small licenses to make larger ones.

Trollers have played an important role in the treaty negotiations with the United States; troll effort was used to put pressure on the many stocks of Chinook and coho of American origin that migrate north as they grow and can thus be caught within the Canadian 200-mile limit (Doucet & Pearse, 1980; Wong, 1982; Fraidenburg & Lincoln, 1985; Urquhart, 1987). This policy of deliberately targeting upon salmon of American origin, as a tactic in the international treaty negotiations with the U.S., was a policy

that the UFAWU noted was begun by Fisheries Minister J. Sinclair (from 1952 to 1957) (North and Griffin, 1974). As the trollers moved farther and farther out to sea, replacement vessels became larger and more seaworthy, and many also installed freezers so they could stay at sea longer. Some trollers reached the length of 55 feet, but most averaged about 38-40 feet. Although comparatively small, trollers are generally very seaworthy vessels.

Canadian trollers developed their expertise in hook and line fishing until they could catch any of the five species of salmon. Typically, trollers differ from most gillnetters and seiners in that they always clean (dress) and ice, or freeze, their catch at sea; this additional labour output is reflected in the fact that more fishermen are employed in the troll fishery than in any other despite a generally smaller volume of catch than the other gear types. Since troll fish is usually caught at sea where it is "bright", individually clubbed, and dressed soon after capture (insuring good quality retention), it is generally in a valuable, readily marketable form when it is brought ashore. Thus, troll fish consistently command the highest ex-vessel prices of any salmon caught in B.C. (see Figure 5).

<u>The processor-fisherman relationship</u>. As the above history of the commercial fishery indicates, the relations between salmon fishermen and the salmon processors have been marked by various tensions, often resulting in political intervention. The fishermen succeeded in having the most efficient methods of salmon capture, trapping and drag seining, abolished.

The pattern of fish processor ownership has been one of consolidation into larger firms. In 1901, "forty-five to fifty" of these individual firms" amalgamated into a single firm, and by 1955 "less than twenty firms who last year operated twenty canneries" were in operation (Fisheries Association of B.C., 1955). Farley (1979) notes 1928 as the year when the dispersal of plants along the coast reached a maximum and in his map of 1951 notes the move to centralized processing in the two main centers (Vancouver and

Prince Rupert). His map of 1975 points out an extension of the same trends. He notes the great importance of technological innovation in such a move; a gradual increase in vessel size and speed, as well as improved on-board holding facilities for salmon, has enabled this move to centralized processing. He also notes that institutional arrangements, in the form of regulation of the fishery, have been important in allowing time for the mobile fleets to move into position in accordance with anticipated catch success.

In 1979, economist Shaffer noted that the three top firms canned 73%, and kept fresh or froze 41% of the total catch of salmon; he characterized this market as "oligopsonistic" as the processors can exert oligopoly power in the sale of canned products (Shaffer, 1979). However, freezing has gradually became more important as a processing method, and by 1980 accounted for about 38% of the total catch according to economist Schwindt (1982). Sociologist Pinkerton (1987a) notes that "vertical linkages between large-scale processors and fishers have persisted and constitute one of the most important aspects of the way both fishers and processors have dealt with the supply characteristics of salmon. The raw salmon market therefore continues its historical oligopsonistic pricing" (p. 88).

Fishermen have expressed their concern to government about the control of the fishing industry by a few firms, through methods of nonpricing competition:

In 1969 processing companies were reported to own slightly more than 13 percent of all licensed salmon vessels; that figure has since been reduced by about 2 percent. The composition of fleet ownership has changed, however, and the true level of company equity or control is virtually impossible to ascertain. The control of the small boat fleets, trollers and gillnetters, by processing company ownership appears to be less than in the past, but the overall increase in the seine fleet and the control of this fleet in relatively few hands may negate the apparent decrease in the number of licenses tied to buyers.

... It is common practice for processors to enter into equity partnerships with fishermen; to hold mortgages or beneficial trusts; or to employ similar methods of controlling production. The real concern should not be the number of licenses held, but the share of production that is controlled by the processors (Fleet Rationalization Committee, 1982, p. 59).

Studies by economists Shaffer (1979) and Schwindt (1982) generally agree with this concern of fishermen although the evidence suggests that this pattern of nonprice competition is now changing;

In the markets for raw salmon, there are a large number of sellers (fishermen) facing a relatively small and highly concentrated group of buyers. . . .while there are over 100 buyers of salmon, the top three account for over 50% of all purchases.

... For net (especially seine) landings and for the net-caught traditionally canned species, the concentration of purchases is much higher than for troll landings and the traditional fresh/frozen species. (Shaffer, 1979, p. 10)

Because of the concentration of buying in the raw salmon markets, the buyers are aware of their mutual dependence; they are aware of the self-defeating nature of price competition. If all price initiatives are met, the only effect of price competition is to raise landed prices and fishermen's profits at the expense of processor's profits. Consequently the buyers try to engage in nonprice as opposed to price competition. For example, the buyers try to develop buyer-seller loyalties by never turning away a load; they flood the fishing grounds with collecting and receiving facilities; they provide credit, moorage and other services; and so on. (Shaffer, 1979, p. 11)

This pattern of nonprice competition is now changing. The entry of socalled "cash buyers" in the 1978 and 1979 seasons put severe strains on established seller loyalties . . . in a sense what ensued was a breakdown in the normal mode

of transaction. Sellers and buyers no longer agreed, implicitly, on the value of the processor provided services. (Schwindt, 1982, p. 35)

By not offering the traditional spectrum of services, that is, by abandoning nonprice competition, the processors are already reducing the associated transaction costs. Moreover these costs differ between gear type. It is more expensive to service, on a per-fish-purchased basis, smaller vessels which would include gillnetters and trollers. Hence the proposed divestiture of the British Columbia Packers' gillnet fleet, but retention of the seine boats.

... In sum, the motivation for backward integration by the processors into harvesting has been weakened. It behooves the purchasers of raw fish to stand back from harvesting, allowing fishermen to dissipate the rents and bear the burden of sub-normal returns to both capital and in the case of gillnetters, the labour allocated to vessel maintenance. (Shaffer, 1979, p. 50)

These relations of production are important to note, for the processor-fisherman relationship has always been a great influence in the history of the fishery. Here, especially, are harboured old suspicions of behind-the-scene policy or licensing manipulation that would harm one group at the expense of another. In particular, members of the United Fishermen and Allied Workers Union (The Fisherman, December, 1987) and the Pacific Trollers Association (Teague, 1987), continue to express concern that the many executive exchanges between the Department of Fisheries and Oceans and the processing sectors have led to "a relationship that is too close," and that inevitably leads to management decisions that favour the processing sector at the fishermen's expense.

The Sport Fishery

The Haig-Brown Legacy

Angling, as a form of sport, came to British Columbia with the white settlers, and was much-written-about by author Roderick Haig-Brown. His many books did much to

both popularize and idealize salmon fishing as an activity. His works dealt not only with quality sportfishing experiences but also with a salmon-related and motivated spirit of environmental protectionism that made his name synonymous with "conservation" throughout British Columbia. Haig-Brown was active in salmon management and the environmental movement of his time and was a part of the political intervention that led to the cancelling of the B.C. governments' proposal to build the salmon-threatening Moran Dam on the Fraser River (Metcalfe, 1985).

Haig-Brown idealized "pure" salmon angling, where the fish was, if conditions would allow it, taken on extremely light "sporting" gear which gave it every opportunity to escape. Haig-Brown was one of the first to advocate and practice catch-and release sport fishing in B.C. He was even philosophically against sportfishing purely for the purpose of obtaining food (Haig-Brown, 1961, p. 218).

Another key factor in the development of really large scale sportfishing in B.C. was the presence of the Strait of Georgia close to the main population centers. This relatively protected inland sea abounded in salmon and was a safe place for small boats. Consequently, salmon sportfishing in B.C. developed primarily as a tidal fishery in which people fished from recreational vessels (most salmon fishing in other parts of the world is carried on in rivers). Netboy, (1973) describes this idyllically;

The sun shines almost every day, skies are blue, winds are calm, and the air is like a tonic to the nerves. On a Sunday one may see thousands of craft, from twelve-footers to oceangoing cruisers, drifting with the tides. . . . all afternoon the fishermen sit in their boats, and only the approach of night drives them into port. (Netboy, 1973, p. 386, 387)

In addition, sportfishing is carried on in streams and rivers for two types of salmon, coho and Chinook, and for the salmon-like and highly prized steelhead trout. But this river fishing is, for the most part, a lone-fisherman affair, much different from the fashionable and highly competitive sports fleet that basks in the ocean sunshine.

Hook and line methods, using rod and reel, are the allowable "gear" of the sportfisherman. Techniques used for tidal fishing are: "trolling", where the angler drags his choice of a number of gear assemblages through the water from a boat under power at low speed (similar to commercial trolling); "mooching", where the angler tempts salmon to bite a live or live-looking herring slowly moved at depth; "drift fishing", where the angler works a heavy sinking lure; and "spinning", where the angler rapidly works an eye-catching "spinner" or metal lure that is repeatedly cast (Gilbert et al., 1977). Techniques have changed somewhat with the advent of ever finer and stronger monofilament line, more effective artificial lures, and accumulated experience. For river fishermen, spinning, bait fishing and fly fishing are the main methods.

For many years, however, the management authorities did not appear to take much heed of the sportfishing fraternity, despite the pleas of such men as Rod Haig-Brown: We have only the vaguest ideas of the needs and preferences of the people who use the resource and make no attempt to differentiate in providing for them. . .yet we are using the resource with steadily increasing intensity, in the face of steadily increasing competition from other water users, and in some instances, the most intense commercial competition for the fish themselves. (Netboy, 1973, p. 388)

This began to change with the advent of the multi-million dollar government funded Salmonid Enhancement Program which began in 1977. This program received the support of all of the user groups in B.C. and its objectives included, "To increase and improve recreational opportunities" as one of its five major social and economic goals (Fisheries and Environment Canada, 1978).

Another important event for the sport fishery was the commencement of a Tidal Waters Sports Fish Licencing Program. This concept, which was successfully warded off by the sportfishing fraternity for many years, was finally imposed in 1981. This simply meant that to sportfish individuals had to purchase a license and abide by certain conservation-related regulations.

The Development of the Sportfishing Industry

L. Straight (1980-81), A. Merriman (1973), C. White (1976), and Gilbert et al., (1977) are sportfishermen-writers and broadcasters who carry on businesses of merchandising their fishing "savvy" as it relates to "tips" on the best sports gear to use, the location of "hot spots", and their general reputations of highlinesmanship. Due to the efforts of such men, sportfishing has been very actively promoted.

Part of this social ritual of sportfishing in B.C., and reflective of the business interests now involved in these boat and supply outfitting business, are the salmon derbies held in many local communities. The most grandiose of these was the popular Sun Derby, sponsored by the Vancouver Sun newspaper, which offered a grand prize of \$25,000 for the largest salmon in 1971 (Netboy, 1973).

Today, sportfishing for salmon, especially in the calm Gulf of Georgia region, is seen as an important component in the tourist industry of B.C. And as tourism is now considered one of the most economically important of all activities in B.C., sportfishing is increasingly recognized as an activity of great economic importance. One survey indicates that anglers took 1,963,000 salmon in 1986, the average catch being .87 salmon/day (Bijsterveld and James, 1986).

The great boost in the availability of salmon to sportfishermen came in 1981, when almost all of the Chinook and coho usually taken by trollers in the Strait of Georgia was allocated instead to sportfishermen. In 1980, the Pearse Doucet report had advocated introducing a separate area option for commercial trollers in the Gulf of Georgia, and in 1981 this was introduced (Pearse, 1982). So while in 1980 the sport fishery took 68% of the coho and 50% of the Chinook in the Strait of Georgia (15% and 21% of the total coastal catches of these species, respectively) (Pearse, 1982), by 1982 the troll catch of Chinook was reduced from about 50% to about 12% of the total Gulf of Georgia catch. An outcry from the commercial fishing interests was followed by civil disobedience (fishermen went fishing anyway) and litigation. The Department of

Fisheries' legal mandate to allocate fish for socio-economic purposes (as well as purely for conservation reasons) was eventually upheld in court, in <u>Gulf Trollers Assoc. vs. The</u> <u>Minister of Fisheries</u>, which greatly extended government authority.

Today we have a sport fishery that is, quite obviously, more than just a recreational activity. Pushed by the rush to fill the economic opportunities opened up by the many service industries related to sportfishing, and, coincidentally, supported by many provincial programs aimed at tourist development, the sportfishing industry has become an extremely powerful lobby. Like the commercial and Indian fishery, which are lifestyle and cultural activities as well as profitable activities, we now have a powerful emotional-political force with its own deep sense of past and identity. At this time, the sportfishing industry is expanding so rapidly into the once-inaccessible northern coastal regions that it is under heavy political attack by northern Indian and fishermen's groups.

Before going into further detail it is time to discuss the historical development and modern day practice of the profession of fisheries management.

Chapter 3

The Historical Development of the Paradigms of Fisheries Management in B.C. Within the history of the fisheries of British Columbia there is yet another story. This is the history of the science of managing fisheries, and within that history, the history of the development of the theory of fisheries management itself. The salmon fisheries of B.C. are unique in the fact that they produced a number of scientists in the fields of fisheries biology and fisheries economics, whose theories eventually came into practice. We should attach the word "applied" to these theories, for not only did many of these ideas occur to individuals studying various aspects of B.C. salmon and salmon fisheries, but they also found their first institutional application in the B.C. fisheries management system. The B.C. salmon fisheries have been a major "proving ground" for these concepts, which have now been applied in other parts of the world as well.

Our purpose in this chapter is not to debate the merits or faults of these ideas, but to adequately explain, against the backdrop of our particular problem environment, the theoretical basis of these problem-framing approaches, and experiences obtained to date in applying them.

Salmon Fisheries Management Begins

As we have seen in our discussion of the development of the first highly efficient mass-capture industrial salmon fishery (the early gillnet fishery), overfishing became a fear of the first salmon managers as early as 1887, even before this feared depletion had occurred (Sinclair, 1978). McDonald (1981) concluded from reading these early descriptions of professionals-in-practice who were so worried about overfishing that a biological rationale for salmon management, based on stock "discreetness", was applied by "salmon workers" since 1880. But it was not till 1954 that W.E. Ricker was to draw together the accumulation of many years of fisheries statistics in his famous paper on "stock and recruitment" which became the cornerstone of theorizing about salmon population dynamics (Larkin, 1979).

Thus these early professionals-in-practice, though they did not have, nor could they get (at that time), any professional training in salmon fisheries management, fitted well into one of Schon's observations of effective professionals-in-practice; they often "knew more than they could explain" about the biological attributes of the fish they were managing.

Such managers, working closely with fisheries officers, were successful in maintaining many salmon stocks during an era when many populations disappeared elsewhere. Netboy (1973) contends that a lack of industrial development in B.C., at least to the scale that occurred in the U.S. Northwest, helped prevent a major collapse of fish stocks. He also noted that the salmon fisheries of Alaska became severely depleted mostly due to overfishing. The fact remains that the volume of salmon landed in B.C., though initially much reduced by the effects of the Hell's Gate slide on the Fraser, has been, with one exception (a backward fluctuation in the 1960s) steadily on the increase (Pearse, 1982). With the possible exception of the state of Alaska, the managers of the British Columbian salmon fisheries hold the outstanding world's record for relative success in not only retaining a larger proportion of the region's original stocks of wild salmon, but also for stabilizing and even increasing the volumes of fish landed annually. As Healey (1982) points out, B.C.'s salmon stocks have declined less than United States or Asian stocks. Though managers of today may feel they are losing ground (due to the annual genetic loss of 1.5% of the stocks/year) the record of their performance, as compared with other nations who have attempted to manage wild stocks of salmon as part of an eco-industrial system, is simply exceptional. Let us now trace some of the major events, processes, and personalities that have heavily influenced B.C. salmon fisheries management.

The Institutionalization of the "Standard Religion" of Salmon Management

Before the turn of the century, the "standard religion" of salmon management was "research, regulation, protection, and enhancement" (Larkin, 1979). Overfishing, especially of early runs of salmon, did occur before this time, for the philosophy of the early canneries was to "fish flat out . . . until either all the ice was gone, or all the cans were full" (Larkin, 1979, p. 99). The lack of processing capacity alone saved many runs from serious depletion (Larkin, 1979, Haig-Brown, 1961), although the run sizes of that time, or at least the estimates of the run sizes of that time based upon the numbers of salmon that processors were able to can, already showed the results of overfishing (Haig-Brown, 1961).

Major Motherwell's Era

During the period from the slide of 1913 to the first assumption of managerial power by a professional biologist (in 1960), administrative positions in the fisheries were not held by professionally trained men. As was the style of the day, these men had "learned-bydoing", and it is interesting to note their management approaches. Major Motherwell's approach to conservation was the movement of fishing boundaries further from the river mouths in conjunction with closures. He was especially concerned with the second largest river system in B.C., the Skeena, which had been overfished and needed careful rebuilding. Motherwell's reports indicate a good understanding of management by stock:

Deferring opening dates or advancing closing times would not bring the desired effect since the heart of the run would receive no additional protection. Increasing the weekly closed period is a more desirable method as a reasonable percentage of each tribe would be permitted to escape upstream--but from the standpoint of industry, the longer idle periods each week would preclude profitable operations. (Barnwell, 1979, p. 51)

In 1935, Motherwell noted that "There are areas where unusual measures in recent

years have been taken . . . and the escapement to the spawning grounds has shown the wisdom of the unusual precautions" (Barnwell, 1979, p. 51).

Without doubt, an event that had a huge influence upon the outlook of all involved with management (and all of the users, as we shall see) was the catastrophic Hell's Gate slide of 1913, which prevented a very large number of the province's largest run of salmon from reaching the spawning grounds. This occurred as a result of railroad construction. Shortly after this event, protracted negotiations began with the United States (many of whose fishermen and fish processors had been intercepting Fraser River fish, and also faced severe economic loss) and led to the formation, in 1937, of the International Pacific Salmon Fisheries Commission. Investigations showed that a block to salmon existed at Hell's Gate, (some salmon were able to pass during this period) and by 1945, fishways were constructed (Hourston, 1984). From 1946 to 1950 selected runs were given protection from fishing (Haig-Brown, 1961; Ricker, 1962). It is interesting to note a quote from Lyons (1969):

It is largely owing to the unremitting exertions of individual officers of both the Dominion and Provincial Departments of Fisheries during this period that the salmon races of the Fraser's tributaries beyond Yale were kept alive. (p. 164)

Larkin (1979) points out that the circumstantial but encouraging experience of the International Pacific Halibut Commission in rehabilitating the halibut stocks by curtailing fishing effort had had a considerable influence upon salmon managers. All early and mid-season salmon runs increased rapidly when the fishways were opened. Ricker (1962) and Haig-Brown (1961) have pointed out that this disaster "served the useful purpose of showing, once and for all, that the salmon resource could be utterly destroyed if its freshwater needs were not respected."

Larkin (1979) also notes that "caught up in the prevailing enthusiasm for conservation, the fishermen advocated stricter enforcement and more scientific management" (p. 100). It seems that conservation and scientific management became
associated with good, stable business, despite the fact that the theories of salmon population dynamics had not yet been written (Ricker didn't write his "cornerstone" of salmon management theory until 1954).

The Golden Age of Fisheries Management

Professor and former fisheries manager and fisherman Don Pepper has described the "golden age of fisheries management as "anything to do with Joe Whitmore and the first dozen years of the Hourston regime" (Pearse Commission, 1981, Exhibit #28, p. 3). The Whitmore Era

In 1946 a figure emerged, who, by all accounts, had a huge personal influence upon fisheries management in B.C. This was A.J. Whitmore, who was described by his successor to the job of Chief Supervisor of Fisheries as "one of those special individuals who understood people and how to motivate them . . . he was the right man at the right place at the right time" (Hourston, 1984, p. 16). Whitmore was described as a particularly warm and diligent man, who made a point of meeting coastal people on an on-going basis, and who emphasized the maintenance of good relations of people concerned with fishing (J.R. MacLeod, personal communication, 1987). In terms of management, he was faced with two major challenges; major industrial developments that jeopardized the habitat of salmon, and the increasingly difficult-to-manage and ever increasing sophistication of the commercial fleet. This fleet was quick to put to use the many advances in marine technology made during the war. But Whitmore countered by hiring "the class of 1947", returning war vets who "dedicated themselves to the fisheries resource much as they had dedicated themselves to their country in war" (Barnwell, 1979, p. 54).

This was fortunate, for as an era of economic development swept through the province, environmental threats to the fisheries resource steadily increased. But by the use of his "special talents," Whitmore was able to get agreement on the provision of fish protective facilities at most developments (Hourston, 1984). He called special

meetings with the developers, and with the help of his technical staff and Salmon Commission output, he was able to make headway in an era when "the word environment was unknown at that time and there was very little inclination on the part of industry to do anything about such things as fish" (Hourston, 1984). Barnwell (1979) makes this summation about the end of Whitmore's career:

Industrialization in B.C. continued and Whitmore and his staff's lone stand to protect the natural habitat of salmon brought the disapproval of the Federal government and finished Whitmore's career. (p. 58)

Whitmore had joined the Department of Fisheries at the age of sixteen and fitted into the description of the early managers presented by the Association of Professional Biologists of B.C. in their brief to the Pearse Commission in 1981: "the early managers generally had no technical or academic training" (Pearse Commission, 1981, Exhibit #96, p. 4). But we can only conclude that he was an extremely effective practitioner of a profession that did not yet have a defined rational/technical base. Whitmore oversaw the almost compete rehabilitation of the Babine River after a slide, and was still in power when the first major and effective "enhancement" program was begun in the 1950s. The thanks given to him by Economist Sol Sinclair give us a vision of manageruser relations at that time:

Mr. A.J. Whitmore, Area Director, Canada Department of Fisheries, Vancouver, gave immeasurable support and invaluable information to this study. His personal knowledge of these fisheries gained over a lifetime of experience was the source of much needed guidance in an understanding of the real issues in these fisheries. The high regard with which he was held in the area and his support of this study paved the way for the writer to gain the cooperation of everybody encountered in this area. (Sinclair, 1960, p. ii)

The Hourston Era: Enter the Biologist-Manager

Up to this time, salmon biologists were primarily concerned with research, and they were usually associated with academic institutions. They were only occasionally drawn into providing advice directly on management problems (Pearse Commission, 1981, Exhibit #96). This all changed when, in 1960, Mr. Rod Hourston took over from the retiring Whitmore. Hourston was trained as a biologist, and had worked in that capacity for many years for the Department before being appointed to this administrative position (Lyons, 1969). Without a doubt, his entrance to the management arena signaled the commencement of the application of the rational/technical problem frame of the professional biologist. Researchers such as those working out of the Nanaimo Biological Station in Nanaimo were doing much pioneering work in fisheries science (in Larkin's words, the literature "crackled" with new information and ideas), biologist-managers such as Hourston were able to put this new scientific knowledge to practical use very rapidly. By 1971, he was able to report that "British Columbia's salmon resources have increased by 13% in the last decade", and attributed the gain to stiff regulations, high pollution standards in new pulp mills, and (since 1950) the application of a \$18 million resource development program (Netboy, 1973, p. 389).

The theoretical basis of this early biological management of the resource, as Hourston expressed in the above announcement, was that of the concept of maximum sustained yield. Many years later, Larkin (1977) described this management concept;

Briefly, the dogma was this: any species each year produces a harvestable surplus, and if you take that much, and no more, you can go on getting it forever and forever (Amen). . . . Armed with scientific knowledge about the number of fishermen and technological advances, the manager could use regulations to prevent the catch from exceeding the maximum, even if it meant telling fishermen they could only use bare hooks from sailboats on alternative Tuesdays between 6 and 7

p.m... in short, the mid-fifties were a fine time to be a fisheries biologist
because you could be single-minded about your job. (p. 1-2)
In another paper Larkin (1979) also summarizes other developments:
The continuing economic development of British Columbia brought increasingly
greater pressures on the <u>environment</u> of salmon. Almost everybody, and especially
the man on the street, perceived a decreasing prospect for protecting salmon. . . ."
(p. 103)

But the most common complaints of fisheries personnel became that they couldn't be everywhere at once. Increases in staff only led to the uncovering of more reasons for concern. There was an increasing realization that salmon populations were destined for a steady abrasion by the fishery on one hand, and environmental degradation on the other. (p. 103)

By the late 1960s it became apparent that the management of the salmon was concerned with a complex economic-socio-politico-ecological system. . . . (p. 103)

By the late 1960s, the commercial fisheries became characterized by 2 days or less of fishing/week. . . . Fishing started promptly at 6 p.m. Sunday evening and continued under continuous surveillance until a closure some days later in the week. The blitzkrieg intensity of the fishery, coupled with demands by the various kinds of fishermen (seiners, gillnetters, trollers), for a fair share of the catch, together with the declared intention of management to achieve optimum sustained escapement of each stock, required great skill in regulation, cool nerves in crises, and a good measure of blarney in subsequently rationalizing decisions. It was little wonder that economists were attracted like wasps to a picnic lunch" (p. 102).

To round out these quotations I would like to include a few recent sources that describe the plight of the modern biologist-managers, who clearly must struggle to apply their professional knowledge in what has become a very stressed environment:

As a consequence of their background of training and experience, these new (biologist) managers tended to emphasize the need for stock conservation and habitat management, in the face of growing exploitive demands from fishermen and industry development generally . . . while it is conceded that the most prevalent and difficult problems of management are socio-economic and political (for which biologists have no particular training or propensity) the basic characteristics and parameters of the fisheries resource are biological. (Pearse Commission, 1981, Exhibit #96, p. 4)

By the end of the 1950s the scientists had quantitative techniques to determine, in principle, desired escapements. The management agencies were aware of this work but faced a very serious problem; the desired escapement levels were usually much larger than they could permit without near -complete cessation of fishing for several years. The agencies were faced with the typical fisheries management problem, trading off between immediate short term yield, and expected long term returns. (Hilborn & Peterman, 1977)

It is a tribute to the skill and dedication of the managers that the whole fishery is not in chaos . . . in almost every instance the fishery manager is squeezed between the demands of both the gear types and the user groups for more of a share in the catch and the need to let more salmon through the fishery to the spawning grounds. (Healey, 1981, p. 125)

Thus the Hourston era saw the gradual deterioration of relations between the management authorities and the user groups. This was not a function of the lack of effort by Hourston or others to communicate (fishermen considered Hourston "a man you could talk to" [J. Bauer, personal communication, 1987]). More precisely, it was a function of increasingly strict regulations, where the user groups felt hard done by.

These regulations were a function of the need to protect the resource against the technological sophistication of the fishing fleet. But it is also quite clear that the new

biologist-managers were beginning to feel that they were fighting a losing battle to preserve the fish. This tension was taking an emotional toll on men who, as biologists, had the welfare of the fish most at heart. Now, all too frequently they were accused of allowing overharvest or environmental degradation and, at the same time, of being too harsh to those who were economically dependent upon the salmon.

Clearly, the manager's job was to constantly search for ways to reduce the everincreasing efficiencies of the user. Given the well-known inventiveness of fishermen, it was a disheartening and hopeless battle. But most unfortunate was the gradual alienation that was developing between the manager and the user as the managers began to lose sympathy with the users and instead seen them as adversaries as they focused upon the preservation of the fish as their major goals. Inadvertently, this also became the major, and after while perhaps the only, objective of management. "Put the fish first" is how Larkin describes this biologist-view. Fishermen are quick to sense this point of view among managers, and as can be imagined, become indignant about being placed second. Thus, manager and fishermen each begin to go their separate ways, each fuming about the socially irresponsible actions of the other.

The "Modern Age" of Fisheries Management

The Stage is Set for Social Change

Thus it was that the commercial fisheries of B.C. became intensively regulated and the iron hand of regulation (especially under Whitmore's ex-fighter pilots) came down hard. Despite some losses, the resource was generally preserved intact. To compound the management problem the fishing fleets now not only increased in size, but also gradually acquired the technological sophistication and seaworthiness to be ready to pounce upon a good "run" of salmon anywhere in the coast. This created the possibility of the concentration of very severe catching power on specific runs. From this point on in the history of the commercial fisheries, there was the very real possibility of holocaust from the point of view of the managers; the combined catching power of

these vessels could, in a single year, undo the efforts and investment of a century of management. Thus, during this time the costs of management increased on two fronts; regulation of the fishermen and regulation of industrial development.

At this point we hear very little from the Indian fishermen, at least on a political level. Duff (1977) notes that it was not until the early 1930s that the Indian population stopped declining and began to recover. Duff also noted that, in 1960, the principal cause of death among Indians was by accidents, many of them alcohol-induced. Authors such as Fry (1970) give us a vision of some of the horrendous social problems that these people were encountering as they strove to cope with the industrialization that was sweeping the province. But, from amid the social chaos, the fishing industry produced a number of examples of Indian peoples that excelled at new roles as industrial producers of salmon. P. Gladstone, a Haida Indian who acquired a degree in economics and political science and wrote about the industry and Indian participation in it, notes:

In Masset (a village on the North coast of B.C.) 'one finds one of the largest and' finest seine fleets of any community on the coast,' and that 'large (Indian) fleets are owned at Bella Bella and Alert Bay.' (Gladstone, 1959, p. 256)

Spradley (1969) offers a detailed account of one of these success stories of Indian fishboat fishing. But it was not until the 1980s that legal and social developments culminated in the push for Indian land-based community fishing rights in addition to Indian boat-based rights of access to salmon. However, Indian "food" fishing was very actively carried on during this period, both by traditional methods and by the use of fishing vessels.

The sports fishery was similarly still struggling for the recognition it was not to receive until the 1980s, although the many books that Roderick Haig-Brown had written in the '50s and '60s were by now an integral part of the British Columbian literary heritage.

The incomes of fishermen were generally very low during this period (Sinclair 1960), and, beginning in 1943, the United Fisherman's and Allied Workers Union, resolved at their annual convention to continue to press the government for "practical plans of license limitation (Sinclair, 1960, p. 4). At the root of the Union's argument was the need for a "decent standard of living" for its members, a standard that they then believed was largely lacking because of the many "part-time" fishermen in the industry.

In 1959, the then Minister of Fisheries, Mr. J. Angus MacLean, assigned Dr. S. Sinclair, an economist, to make a detailed investigation into license limitation as an option in the commercial fisheries of British Columbia.

Dr. Sol Sinclair and the Theories of Resource Economics

The problem-frame Dr. Sinclair used to analyze the fisheries was that of the theory of "common property" resources. The writings which most influenced him were those of H. Gordon:

In the sea fisheries the natural resource is common property; hence the rent it may yield is not capable of being appropriated to anyone. The individual fisherman has no legal title to a section of ocean bottom. Each fisherman is more or less free to fish wherever he pleases. The result is a pattern of competition among fishermen which culminates in the dissipation of the rent. . . This is why fishermen are not wealthy, despite the fact that the fishery resources of the sea are the richest and most indestructible available to man. By and large, the only fisherman that becomes rich is one who makes a lucky catch or who participates in a fishery that is put under a form of social control that turns the open resource into property rights . . . in point of fact, fishermen typically earn less than most others, even in less hazardous occupations or in those requiring less skill. (Gordon, 1954, p. 137).

This quote outlines the basic economic theory on fisheries regulation that was to be expanded upon by Scott (1955), Christy and Scott (1965), Crutchfield and Pontecorvo (1969), Anderson (1977), Pearse (1979), and Pearse (1980); uncontrolled entry into a common property fishery results in a pattern of competition that results in the dissipation of economic "rents"; hence profits will always be low, on average, in a common property fishery.

In his final report, Sinclair was able to recommend a change that accurately reflected not only the action that his analysis indicated was necessary, but also the major consensus toward regulatory change that he found among the fishermen:

A limited entry licensing system be introduced to control the number of boats and fishermen, that those fishermen actively engaged in fishing during the last two years and whose boats could conform to requirements for seaworthiness and safety should be eligible for licensing. (Sinclair, 1960, p. 141).

This recommendation was consistent with two additional criteria--administrative feasibility and political acceptability--that, in Sinclair's opinion, regulations imposed on the industry must meet:

In our democratic society where freedom of choice is an accepted right of every citizen, regulations that limit this right must be acceptable to the people involved. Otherwise the regulations become unenforceable. (Sinclair, 1960, p. 94)

After the Sinclair report of 1960, the government reviewed it but took no action.

We should note here that this concept was not new to the B.C. fisheries. The concept was first applied in 1889, and was experimented with for some 39 years by the government.

And as Larkin makes clear, the re-introduction of the concept of limited entry was not instantly accepted by the now-in-power biologist-managers (Larkin, 1979). But Scott and Christy (1965) must have done much to bridge this understanding; they overlaid the traditional biological logistic or "catch curve" with the new economic variables of "total

dollars" and "number of fishermen", "total cost," and "maximum net economic revenue" (later to be classified under the heading of "optimum sustained yield"). Their equation also included maximum sustained yield, and Larkin (1977) points out the reconciliation between the outlooks of biology and economics.

Meanwhile, the vocal United Fisherman's and Allied Workers Union continued to nag the government over the issue of limited entry. In 1964 the Union made a submission to a conference on resource development in which they commented:

... the B.C. fishing industry is over-capitalized and over-manned ... over 15,000 licenses were issued in 1962, compared to 10,853 in 1956... While the recognition of the need for license limitation has grown, no practical steps have been taken to implement it. (United Fisherman and Allied Workers Union, 1964, pp. 14, 15)

An Economist-Fisheries Minister Implements Dr. Sinclair's Report

It is a curious fact that, though economics is now clearly the language of public policy in fisheries, and though it was to economists Sinclair and Pearse that the last four inquiries into the industry have been delegated by government, economists rarely seemed to end up in positions of power where they could actually implement such policies. This all changed when Jack Davis, a professionally trained economist, came to power in 1968.

The "Davis Plan" became operational with the 1969 season. The plan licensed salmon vessels based upon their annual salmon production in 1967 and 1968, a policy which enraged the Union who wanted the fisherman to be licenced, not boats.

In 1973, a West Coast Salmon Fleet Development Committee (including fishermen, industry, Federal Government and University representation) was appointed. With the exception of the UFAWU, this committee endorsed the Davis Plan and recommended that it be carried on. The UFAWU submitted a minority report stating that the Davis Plan would lead to "economic redistribution of the wealth produced from the fishing industry

in favour of the large processing companies and to the detriment of fishermen," and they subsequently recommended that the "Government of Canada surrender to the province any and all powers under the British North America Act which might impede such developments by the province of British Columbia." They also recommended that a crown corporation be set up by the government, in co-operation with the Government of B.C., for the purpose of salmon rehabilitation.

Dr. Peter Pearse, a resource economist, was the representative from the University of British Columbia. In 1972, Dr. Pearse made a professional assessment of the limited entry program.

Romeo LeBlanc's Era

The salmonid enhancement program. A household word often heard in close association with the mention of salmon in British Columbia is "enhancement". This is an indication of the high level of public awareness and support that "SEP" has enjoyed since its inception in 1977. Without spending too much time examining the fascinating story of the development of this massive public program for the expansion of salmon populations in British Columbia, we should note that this program (which was an especially bright feather in the cap of the Liberal government of the time) was also a huge social program. Not only was it seen as a way to create "national and provincial income", and "to create employment", but it was also directed toward "improving economic opportunities for Native people", "fostering development of economically disadvantaged communities and regions, and "increasing and improving recreational opportunities" (Department of Fisheries and Oceans, 1978, p. 51).

The SEP program was launched after the completion of a unique five-year planning process that began when J. Davis was Minister. This process was participated in by virtually all of the diverse salmon user groups in British Columbia. Dr. P.A. Larkin is without doubt the salmon biologist who at that time not only supported the program, but also possessed the best combination of technical knowledge, imagination, and literary

wit to be a key influence behind its inception. His paper "Play it Again Sam: An Essay on Salmon Enhancement" (1974) brought together the biological, technological, economic, and, most importantly, the nitty-gritty of the Canadian socio-political system.

Ready to implement this vision were such coast-born managers as J.R. MacLeod, who knew all of the players in the salmon scene and who was able to bring together these diverse groups in a spirit of volunteerism that promised to not only arrest the decline of the salmon resource, but also to expand the runs of salmon. In later years MacLeod came to be nicknamed "the father of salmon enhancement"; he and other professionals-in-practice of that time were able to bring together a consensus of not only the users, but also the competing bureaucracies of the Federal and Provincial Governments. An important key was the development of a mutually acceptable agreement between the Federal and Provincial governments (MacLeod, 1983). Central to the task, too, was careful mediation between the bureaucracies within the Federal government itself.

Well over half of the SEP program funding went to major projects (hatcheries, spawning channels, etc.) and to community development projects. Although SEP sought to enhance a common property resource, both of these program components clearly grew into what we can define as TURFs. In 1982, Dr. Pearse reported that the annual revenues from sales of fish and eggs at enhancement facilities were in the order of \$.6 million. Although these facilities were targeted upon contributing fish to the common property fisheries, the operators of the hatcheries had found, for a variety of reasons, that not all of the annual returns could be taken by the commercial, Indian or sport fisheries. Thus, a prominent SEP biologist commented at a conference in Alaska the "salmon ranching is alive and well in Canada" (Sandercock, 1982). The community development programs eventually fostered a strong desire, especially by Native groups, for the harvest of the returning fish by the project operators. Although strong political pressures from the common property fisheries interests prevented much

development of this activity on an economic level, a "socially integrating force" was now clearly pushing for the more exclusive use of these returning fish by the project operators and local communities.

The new policy of "best use". LeBlanc, like Davis before him, wrestled hard to come up with a solution to the problems in the fishery. Like Davis, he saw the problems from the point of view of economics, but with a huge dose of liberal social interventionism. He was not willing to implement policy that did not include social consideration for the many underprivileged people that he knew depended completely upon the fisheries. He also saw the fishery as a special opportunity to experiment with social policy:

Let us look at the fishery another way; as a common-property resource belonging to the people of Canada. Perhaps this gives us a license to experiment with a perfectly planned economy. The government could figure out exactly what kind of fleet, fishing and processing industry would produce the most efficient, the most benefits, all the ingredients of a technocrat's utopia. The trouble is: how can the government know? Who can define precisely what fleet and industry could produce the most economic benefits and the most human happiness? (LeBlanc, 1982, p. 1)

In 1976 the Federal Fisheries Department issued a major policy directive called "Policy for Canada's Commercial Fisheries". This paper stated that;

The guiding principle in fishery management no longer would be maximization of the crop sustainable over time but the best use of society's resources. "Best use" is defined as the sum of net social benefits . . . fundamental decisions about resource management and about industry trade and development would be jointly reached by industry and government. (Department of the Environment, 1976, p. 53)

This paper was concerned not only with the "tragedy of the commons" in the fisheries, but also the depressed incomes of fishermen. It noted that the government was committed to a detailed review of the social effects of each program.

The "best use" concept had originated in the development of a comprehensive and successful plan to begin a roe-herring fishery on the pacific coast, with employment as one of the factors determining "best use" (MacLeod, 1972).

In 1978, Sinclair was contracted by LeBlanc to evaluate the first licensing system that had been implemented by Davis in 1969. Sinclair recommended the introduction of a royalty on salmon catches, and a licence fee.

In 1980, LeBlanc requested P.H. Pearse and F.J. Doucet to "assess the current circumstances of the fisheries of the Pacific Coast, and to recommend policy action" (Doucet and Pearse, 1980).

Finally, in 1981, still under LeBlanc's reign, P.H. Pearse was appointed to head the Commission on Pacific Fisheries "Policy. However, LeBlanc left office as the final recommendations of this report were being prepared.

The Social Conditions and Paradigms of the Fisheries Managers

The paradigms of management that we have been discussing are primarily those of the politicians in power, and the economists that these politicians have appointed to study the fisheries. But who are the professionals in charge of the every day management of the fisheries? What kind of an environment do they live in, and what influence do they have?

Dr. D. Pepper is an ex-federal fisheries professional, who has offered us a rare, if highly opinionated, view of the world of the manager;

... because fisheries is an old department, old in the sense that it has a lot of traditions, old in the sense that people, once recruited to the Department of Fisheries generally stay there. It has what I call tribal values. Generally speaking the top scientists, pure scientists will be rewarded, one way another. Because its a group ethic. They're doing the work; they're doing the science; they are nice guys; they should be rewarded. Unfortunately for the economists they don't have that group ethic or that tribal ethic going. Therefore, frustrations set in and they

leave, I guess. The department does not see itself as an economic department. It sees itself--when the chips are down--it sees itself as a biology department . . . when the chips are down, decisions are made on the basis of biology. (Pearse Commission Proceedings, 1981, p. 12890)

They [Canadian Fisheries Scientists] are recruited from the universities and abroad on the basis of what is vulgarly called the "old boys network". Being a tribe, one must go through the initiation rites of the present members. The tribe thus controls recruitment. (Pearse Commission, 1981, Exhibit #183, p. 1)

The department and the industry are involved in a dialogue of the deaf. Generally, the industry does not understand the dialogue of the bureaucracy but it is certain that the department does not know the language of fishing . . . the values, hopes, fears and experiences of fishermen are foreign to the Department. No meaningful discussions can take place as there is no common ground for language or experience. (Pearse Commission, 1981, Exhibit #28, p. 12)

The Association of Professional Biologists of B.C., in their brief prepared for the Pearse Commission, noted that:

Institutional instability has resulted in the departure of significant numbers of Fisheries and Oceans staff, including several well qualified fisheries biologists. (Pearse Commission, 1981, Exhibit #96, p. 3)

In 1984 the results of an in-depth study of DFO people was published in the newsletter circulated within the DFO:

 Most DFO people see themselves as professionals first (engineer, biologist, etc.) and only secondarily as a manager. For a few in DFO, managing people is seen as a "penance"; what DFO people would really rather be doing is the thing for which that are trained.

2. DFO people take themselves very seriously.

- 3. The stress level among DFO people is very high--many people feel caught...
- 6. Many DFO people are highly skilled in linear ("left brain," logical) thinking, not particularly skilled in divergent ("right brain," intuitive) thinking. . . .
- DFO people are intelligent, extremely dedicated--more to fish than fisheries. (Ryane, 1984. p. 4)

The picture that emerges rather clearly reveals that salmon fisheries management now suffers from many of the same problems that plague the "rational/technical approach" to planning described by Schon; i.e. frustrated professionals find themselves in a position of being unable to implement what their technical training tells them are <u>the</u> solutions.

In fact, the historical data appears to indicate that it is only since fisheries management has become more complicated and confrontational as a result of the introduction of the all-to-rigidly applied rational/technical models of the professional that it has become more expensive and less effective. Although it is equally clear that the increased technical sophistication of the users have been a major factor in the increase in confrontation, it is also apparent that the biologist-administrator of today faces a management arena of actors that is certainly beyond the realms of the physical sciences to understand. Did Whitmore manage to manage just as well or better because he was <u>not</u> encumbered with rational/technical models?

Let us now examine the findings of the most high-profile and participative of any inquiry ever made into the fisheries, the Pearse Commission.

Chapter 4

The Theory of TURFs and Its Application To Contemporary Public Policy in Fisheries

The Prerogatives and Problem-Frames of an Economist-Royal Commissioner

The appointment of Dr. Pearse to head a royal commission gave him the prerogative to apply the tools of his profession as he best saw fit, within the bounds of the terms of reference of the Commission. The degree to which the terms of reference seemed to overlap with some of the basic premises of economic theory is a reflection of the fact that a) Dr. Pearse did have a hand in drawing up these terms of reference, a fact that he did not hide (Pearse, personal communication, 1983), and b) that economics is, after all, presently the primary form of analysis used in public policy analysis in the formal study of fisheries in Canada. (Barrett, 1984, contended that this had been so since the stock crises of the 1970s on the Atlantic coast.) Clearly, Dr. Pearse, as an economist, was a rational-technical planner, working from the premise of the centralist planning mode that a definable public interest existed:

... to make recommendations directed toward insuring that the public interest is protected. (Pearse, 1982, p. 268)

On the personal and practical level of experience, there could be no doubt that Dr. Pearse's direct experience with the fishery user groups of B.C., over the previous 10 years, (as a consultant, and an inquiry appointee) was sound criteria for this appointment, as was his world reputation of fisheries economics. (In 1980, he had a major paper accepted for publication with the Food and Agriculture Organization of the United Nations.) We might also add that Dr. Pearse was a long time resident of the Pacific coast and previously had headed a major inquiry into the forest industry in B.C.

The final report of the commission represents an obviously very difficult struggle on the part of the Commissioner to present recommendations that were both; a) wellgrounded in logically developed and applied economic theory that reflected the high

professionalism expected of him and, b) moulded to be acceptable and implementable in the socio-political arena of the B.C. fisheries.

The manner in which the recommendations were framed around the existing social and economic structures in the fisheries made this abundantly clear. Dr. Pearse was to comment later, in an interview in 1984, that "the fishing industry, characterized by acrimony and suspicion, was frustrating to deal with" (Rose, 1984. p. 12).

But at the same interview he expressed some of his views regarding the inquiry process:

"The real value of an inquiry is in getting opinion. We need to get a feel for expert opinion and general opinion--and how concerned interest groups feel about the issues . . . what I want is thoughtful opinion. . . . I think the most useful thing is advice and guidance; how the public feels about a particular opinion" (Rose, 1984, p. 12).

However, nothing in the terms of reference of the inquiry mentioned obtaining industry consensus as to how to solve the problems in the fishery. Perhaps Commissioner Pearse was to some extent trapped--because of his own professionalism, and also because of the prerogatives he was delegated as a commissioner--into a situation where a great many of his recommendations would not be well received by the interests involved in the fisheries. It is important to note in this regard that Commissioner Pearse made a concerted effort to include the "thoughtful opinion" of many of the participants in the hearings (through the abundant use of quotes) in his final report while at the same time developing the theoretical rational and specific administrative detail that accompanied the recommendations.

But Commissioner Pearse could not afford to be vague about different courses of action, as Sinclair had been able to get away with in the first real economic study of the industry in 1960. Commissioner Pearse was expected to recommend specific courses of action to not only correct problems that had occurred with the already implemented

plan of license limitation (Fraser, 1979), but also to recommend the most up-to-date alternatives as yet developed by economists specializing in fisheries. Arriving at implementable recommendations, especially concerning the issue of TURFs, as we shall see, proved exceedingly difficult. As J.A. Crutchfield had commented at the 1979 Powell River conference:

any real progress calls for institutional changes that will find heavy going in the traditionally conservative fishery community (industrial and governmental) (Crutchfield, 1979. p. 751)

Our objective in this thesis is to attempt to outline the importantly-different perspectives of the major players in the B.C. salmon fisheries, including the managers and the economic analysts. Let us conclude our discussion of the perspective of the science of economics by thoroughly examining the concept of Territorial Use Rights in Fisheries (TURFs). Only then will we be ready to contrast the economist's outlook on this issue with that of the various user groups who addressed the issue during the hearings, which we will then return to examine in some detail. Together with what we have already learned about the biologist-administrator's view, perhaps we will be on the road to understanding, firstly, the perspective of the professionals who manage the fisheries and, secondly, just why the TURF recommendations were not, in the end, implemented.

The Concept of Territorial Use Rights in Fisheries

Wildsmith (1982) notes that before the Magna Carta was signed in 1215, an exclusive right to fish in tidal waters was acquirable through a grant from the king of England. But the nobles clarified that the king could no longer grant this right. In addition, it was expressly stipulated that "all Kydells (fish traps) for the future shall be removed altogether . . . throughout all England, except upon the seashore" (Magna Carta, chapter 33). Thus in putting his quill to paper under the heaviest of pressure from those early fishery user groups, King John in effect institutionalized the "freedom

of the seas" idea for the millions of people who were to eventually come under the influence of British law.

Gordon (1954) noted in his famous paper, that:

Primitive cultures appear to have discovered the dangers of common property tenure and to have developed measures to protect their resources. Or if a more Darwinian explanation be preferred, we may say that only those primitive cultures have survived which succeeded in developing such situations. (p. 140)

Anthropologists Durrenberger and Palsson (1986) also point out that the existence of "common property" is "neither universal nor natural". And even within the sphere of British legal influence described above, extra-legal means were often found to establish property rights in fisheries. The classically documented example is that of anthropologist Acheson (1975) who worked with economist Wilson and showed how "harbour gangs" enforced their own localized and informal form of semi-exclusive access over lobster resources in the state of Maine in the U.S.

Acheson (1981) lists Japan and Sweden as countries where rights to fishing grounds are recognized and controlled by governments, but that "in other cultures such rights are completely unrecognized by government and are defended by "illegal tactics". He also mentions that in most societies, fishing rights involve control over "fishing space"--not the resource itself.... "If fishermen can not control the fish, at least they can control who will be allowed to fish for them, and how they will do so ... it is clear also that territoriality in most fishing communities has as its goal "access rights-privileged space" (p. 281).

As we have noted in previous chapters, the Native Indian cultures of B.C. have also developed systems of TURFs.

It appears, however, that it is only recently that the territorial use concept has received a great deal of attention from economists, who have largely focused upon the prospect of introducing property rights through gear restrictions, closed seasons and

areas, direct restrictions on vessels (limited entry licensing), taxation of vessels or equipment, taxes or royalty on the catch, and quantitative rights (quotas) (Pearse, 1980). Only now do economists seem to be picking up on the extensive data accumulated over the years by sociologists and anthropologists. Acheson (1981), McGoodwin (1983) and Panayotou (1983) have brought together fascinating compendiums of examples and variations on the TURF concept from throughout the world.

TURFs Defined

In 1982, in preparation for the FAO World Conference on Fisheries Management and Development, the FAO held a workshop to examine the concept of territorial use rights in fisheries. In a subsequent paper, Panayotou came up with a refined definition of the concept:

The rights of use and exclusion defined over a given territory are held by a community or a collectivity with socially integrating forces. . . . TURFs may be defined as community held rights of use (or tenure) and exclusion over the fishery resources within a specific area and for a period of time. Accompanying these rights might be certain responsibilities for maintenance and proper management of the resource base, as well as restrictions on the exercise of the rights of use and exclusion. (Panayotou, 1983)

Panayotou then comments that the requirement of "socially integrating forces" effectively disqualifies both national exclusive economic zones (EEZs) and private property (such as oyster beds or fish farms) from being within a true definition of TURFs.

Christy, an economist and a senior planning officer with the Food and Agriculture organization of the United Nations, also worked to define this concept. He rationalized that TURFs can only remove the state of common property to a certain degree in the marine environment, and can only provide for relative rather than absolute controls. His definition of TURFs included EEZs on one end of the scale and oyster beds at the

other extreme. He concluded that "localized" TURFs are the more socially and economically desireable type (Christy, 1982).

<u>TURFs as a Prospective Management Tool in Fisheries</u> Economic Theorists' View

Christy (1982) expands upon the uses that TURFs might play in contemporary fisheries management. First in his list of functions is the institution of "sole ownership" (as described by Scott, 1955), which is seen as a means for preventing the damaging consequences of open access to common property resources. There is a tendency to waste the resource if there are not adequate controls on labour and capital, and dissipation of rents leads to fisheries of extremely low profitability.

Secondly, localized TURFs "appear to offer an important opportunity for improving or maintaining the welfare of small-scale fishing communities in developing countries. But Christy was also aware of the problems in equating the equity versus efficiency goals of TURFs, and expressed some caution as to the possibility of the creation of "sea lord" controlled TURFs that could even "worsen the plight" of the small-scale fishermen.

Panayotou (1983) also sees TURFs as a tool well suited to small fishing communities:

The growing interest in TURFs stems from their potential as management tools for fisheries suffering from or threatened by the ills of open access (overfishing, crowding, excessive effort) and yet refractory to conventional management (e.g. prohibitively high monitoring and enforcement costs). A prime example is the case of remote, scattered, and fluid small-scale fisheries. (p. 154)

These economists saw TURFs more as an option for small scale developing fisheries rather than for highly industrialized fisheries. Christy makes one comment, however, regarding the problems TURFs can face as fisheries become more industrialized:

Salmon traps at the mouths of Alaskan rivers were eventually outlawed as a result of rising prices for salmon and growing pressures by the excluded fishermen to

increase their access to the resources and reduce the ability of the trap owners to control the resource. This redistribution of the resource was facilitated by the fact that most traps were owned by nonresidents of Alaska, who could not mobilize effective political support in the state. . . Traditional territorial rights, with even less protection under law, have not generally been able to withstand the pressures resulting from a large increase in the value of the access to the territory.

(Christy, 1982)

These economists' perspectives on TURFs bring into focus a number of issues we have already discussed in this thesis:

1. Pre-contact Indian fisheries.

2. Indian "food" fisheries.

3. Aboriginal right of fishing under Canadian law.

4. Area licensing options.

5. The historic salmon-traps and cannery licenses.

Salmon, as highly mobile resources, might not seem to be well suited to this form of property rights. But as anadramous fish that are readily available when they return to a particular area and in the past they have been subject to many different forms of TURFs both in industrial and in traditional societies. As we shall see, yet more forms of TURFs were proposed by different participants in the Commission on Pacific Fisheries Policy.

Christy (1982) made a number of comments that are highly relevant to our future discussion of TURFs in the context of the B.C. salmon fisheries:

The owner of a TURF can be a private individual; a private individual enterprise; a group of individual owners as a cooperative, an association or a community; a political subdivision such as a town or a province; a national government, or even, conceivably, a multinational agency . . . with the regard to the objective of improving the welfare of small-scale fishing communities, ownership of rights by

private individuals might well be damaging. In these cases, some form of communal ownership of a TURF will be desirable. (p. 7)

The major, and fundamental, problem is that the establishment of localized TURFs may require re-distribution of wealth. The provision of exclusive rights means that some present users of the territory are likely to be excluded. Although this may be socially and economically desireable it may be politically difficult. (p. 5)

Generally it can be said that where the costs of acquiring and defending exclusive use rights are greater than the benefits, the condition of common property will exist. (p. 5)

Prior to the extensions of national jurisdictions, the principle of the freedom of the sea led to a distribution of wealth that favoured those who had the ability to invest in large vessels capable of fishing in distant waters. Within present extended economic zones, the same pattern of distribution occurs although on a smaller scale. Where there are no, or few, territories governed by exclusive use rights, those with the most powerful vessels acquire the largest share of the catch. The owners of such vessels are generally opposed to the creation or extension of territories from which they would be excluded, and they tend to favour maintaining the condition of common property. (p. 6)

Although ideal conditions will never exist, the possibility of partially achieving the above results are sufficiently high to warrant further studies of the concept of localized TURFs. Such studies should deal, in part, with further and more detailed examinations of the conditions permitting the creation of localized TURFs or the maintenance and enhancement of traditional territorial rights. . . . (p. 9)

In 1983, a major F.A.O. technical paper, authored by Beddington and Rettig (1983),

included TURFs as a subset under one of the five techniques for regulating fishing mortality. They make a note about TURFs in Canadian history:

In contrast with Japan, as population growth, technological advance, and rising commercial value brought about forces which weakened property rights, the rights were not supported by law. (p. 24)

Biological Theorists' View

We have already briefly discussed the biological attributes of salmon. To add more detail, we can note that in 1982 salmon biologist Healey tallied 3150 stocks (defined as the members of a particular spawning population) along the N.W. Coast of North America. Within each stock, he stated, there can also be several discreet brood lines and life history types. Later in his essay, in an obviously emotional tone that one seldom sees amid the small type of the usually cold-as-a-salmon-stream biological journal articles, this author talks of the "dedication" needed by the managers to manage the gauntlet fisheries. Reading between the lines a bit, it sounds as if the manager might face a gauntlet of his own peers if he is so lax as to allow a stock to be overharvested. Imbued in this author's writings are the objectives of the Association of Professional Biologists that appears in the DFO's in-house newsletter:

To ensure and stimulate the development and application of sound biological principles for managing and conserving natural renewable resources. (Graham, 1983, p. 14)

The sane bio-ethical tone comes from articles by DFO planners trying to plan a gradual way out of the mixed stock problem (Wood, 1981).

Larkin (1980) summarizes the manager's dilemma:

Given their "druthers", they (the salmon managers) would probably express a preference for harvesting fish on the spawning grounds; but since the value of the salmon as food is low there, it is necessary to put up with a fishery that occurs earlier and that inevitably involves more admixture of stocks. The fact that

salmon must be taken at sea also creates more uncertainty about the number of fish that should be caught. (p. 1469)

In fact, Larkin gets quite pessimistic about the mixed stock problem, when it is further aggravated by hatchery production which became an increasing controversial problem.

With so many individual stocks, it is technically impossible to manage each separately . . . it thus seems an inevitable long-term consequence of a heavy fishery that the least productive stocks will have to be sacrificed if the most productive are to be utilized, and a salmon enhancement program, if it is successful, will accelerate the process. (Larkin, 1974, p. 1440)

Thus Larkin stated a variable--the economic importance of harvesting "bright" salmon--that limits the parameters within which the manager must work. So, what do biologists think of the economic concept of TURFs as an option for salmon management?

There are a number of schools of thought on this subject, each of which responds negatively or positively to a particular form of TURFs. So we now face the task of categorizing the different forms of TURFs.

Advocacy of ocean ranching. Particularly prominent salmon biologists who have been strong advocates of one form of TURFs in particular are Donaldson and Joyner (1983), Thorpe (1980), and McNeil (1976). Salmon "ranching", or the hatchery rearing of salmon that are then released to the wild and subsequently privately harvested by the hatchery operator upon their return, is the focus of this enthusiasm. Most of these scientists also present, in their future visions, extensive genetic manipulations of the salmon to be released. Thorpe (1980), outlined a number of biological/social/economic rationales for the need to develop this practice.

Firstly, the goal of wild salmon management, "the maintenance of a plentiful supply of salmon that can support heavy human predation," is simply better served by artificial

production because hatchery survival rates are 10-100 times that achievable in nature. The inevitability of derogatory environmental alterations and overfishing of wild stocks combine to make ranching the most desireable way for society to utilize salmon. Thus, social goals will be better achieved by ranching.

Secondly, since ranching is carried on with artificial stocks and harvest is only of the single returning stock, the genetic integrity of wild stocks is actually better preserved. The wild stocks, in fact, should also be harvested in this way.

A third point made by Thorpe is that the management of competitive fishing for salmon on the high seas is extremely expensive.

Finally, Thorpe notes that ranched salmon would concentrate much of their feeding on life-forms unexploited or presently unavailable to man, they would enable more net production of protein. Thorpe quotes Mathews et al. (1976), who points out that if substantial reductions in energy costs at the freshwater stage could be achieved, salmon ranching could become the most energy-efficient protein production system known to man.

The following statement by Thorpe perhaps sums up the problem solution as it appears to those biologists who strongly advocate salmon ranching:

Ranching substitutes predatory fish for ships; the growing free-ranging salmon obtains its own protein by foraging, packages this in a form highly acceptable for human consumption, and returns to deliver itself to the harvester with minimal use of boats in the whole production process. (Thorpe, 1980, p. 4)

A key to our understanding of this concept, as defined by Thorpe, is that salmon fishermen are not only not needed, but are also a net burden upon society. However, in the same volume McNeil (1980) and Kobàyashi (1980) note that fishermen in Alaska and Japan have been major instigators and beneficiaries of ranching. Thorpe makes no mention of the loss of quality of the terminally caught ranched salmon, the point which so concerned Larkin.

Experimentation with TURFs. The second "biological opinion category" of TURFs is the most commonly-held one. In 1980, Larkin suggested:

... what is wrong with licensing a company to manage the fisheries resource of a piece of ocean, just as "tree-farm" licenses are issued for forest resource management on a tract of land? To these kinds of questions there are complex answers with biological, economic, social, and political implications. Their exploration could be a productive ground for controversy, especially as they might imply quite different kinds of government involvement than are presently typical of fisheries. It is worth thinking about. (p. 219)

Similarly, the biological staff of the Commission on Pacific Fisheries Policy considered "area licencing" and "area leases" as options. They expressed concern that area licenses might confer an obligation on management to allow fishing when stocks did not warrant it. They noted that within the terminal fisheries of area leases, fishing on discreet stocks might not be possible if the economic value of "silver bright" salmon was at stake. They also noted that there would be an increased requirement for accurate in-season biological information, and that there would be a discrepancy between public and private discount rates, and thus adaptable operating criteria would be necessary where the productivity of an area was uncertain (Environmental and Social Systems Ltd., 1982).

Interestingly, the TURF developments in Alaska have received close scrutiny by biologists. Helle (1981) concluded that if salmon returning to artificial propagation facilities are separated in time or space from local wild stocks, the management future looks bright.

The Recommendations of the Final Report of

The Commission on Pacific Fisheries Policy: General Recommendations

Regarding the Ongoing Commercial, Native, and Sport Fisheries

The Final Report of the Commission on Pacific Fisheries Policy was completed in the fall of 1982. As these recommendations were detailed and extensive, I will only summarize those that dealt with the institutional arrangements for fish harvesting.

Firstly, for the fishboat fishermen, limited entry fishing licenses were to be issued to persons or companies who would designate the vessels that they would use to exercise these licenses. The present vessel licensing system, based upon the perpetual ownership of the vessel's license, would gradually be phased out. The licensed entities would be phased into a complicated system where they would bid for 10 year limited entry licenses; they would fish by one "gear type" only, and in one of three coastal (this was yet another form of "area licensing") fishing zones.

Over the ten year period, a "target fleet" of 50% of the existing harvesting capacity of each of the three gears would be the goal. New 10 year licenses, in which the number of participating licenses would then be adjusted according to desired fleet size, as well as to expected biological production, would be issued annually by means of sealed bids. Native Indians, whose licenses would not be transferable to non-Indians, would receive financial assistance from various government sources to help them compete successfully in the bidding process.

Sportfishing was to be given higher status in policy making circles and the preservation of a large number of quality sportfishing opportunities, rather than an increase in the total number of salmon caught, was to be the goal of management.

For the Indian fishery, specific quantities of fish were to be allocated every year to each band, either through permits to individuals or through Indian fishery agreements. If they wished, bands could also take over the administration of their fisheries. Pearse further advised that the Indian Band By-law issue should be discussed

by all parties involved, with a view to establishing the Department of Fisheries and Oceans as the party responsible for fish conservation and management. The Commissioner also noted that the Community Development Program component of SEP, which was mainly initiated for the benefit of Native communities, had been generally successful. Finally, Indian organizations would be encouraged to participate in mariculture and ocean ranching.

The "Mariculture and Ocean Ranching" Recommendations

This brings us to the issues of "mariculture leases" and "ocean ranching", which were extensively discussed and recommended by the commissioner. They represented a "new" concept in resource access and in licensing, at least at this time in the history of the fisheries (the historic "cannery licences" and especially the early "drag seine" licences--see glossary and chapter 2--were actually a very similar concept). There is a confusion in terms, especially for "mariculture lease", so I will quote the more important recommendations as they appear, and afterwards offer some explanation of the recommendations (Pearse, 1982):

The Department should promote the development of mariculture on the Pacific coast by providing technical support and a system of mariculture leases. (p. 147).

Here Commissioner Pearse referred primarily to closed system mariculture, also called sea farming and recommended a more active federal role in this provinciallyadministrated activity. Because of the overlapping jurisdictions of the two governments, these issues were difficult to deal with. In terms of legal definition, the provincial government has jurisdiction over all activities that include real rights of property.

The Department's program for mariculture leases should include ocean ranching operations based on the development of natural stocks and artificial production . . . for the time being and until the feasibility of these ventures and the regulatory method is demonstrated, the Department should approve only a few mariculture leases involving ocean ranching operations as pilot projects. (p. 49)

The Commissioner went on to explain that these projects should be designed to benefit, rather than impinge upon, the present commercial fisheries:

Each mariculture lease should designate a specific area in which its holder has the exclusive right to harvest and manage specific species of fish. (p. 149)

The Commissioner was including here under "mariculture leases", a very different concept from that normally associated with this term. He was including "developing natural stocks entering the sea in the lease area as well as producing fish by approved artificial techniques." Commissioner Pearse was recommending a concept that was entirely new to B.C., and to salmon management elsewhere, with the possible exception of some examples in Washington state and Japan. There can be no doubt that Pearse's long experience with the tenure system in the forest industry now resulted in imaginative recommendations:

Mariculture leases should require their holders to periodically submit plans for the approval of the Department concerning the management, enhancement and harvest of fish under them. The duration of plans and the frequency of obtaining approvals of them, should be determined for each lease in view of its particular circumstances. The approved management plans should form part of the lease" (p. 150).

The terms of mariculture leases should be determined individually for each in recognition of the characteristics of the fishery, the amount of any capital investment required for enhancement and the life-cycle of the species" (p. 89). "mariculture leases should be allocated and periodically reallocated according to competitive bidding procedures unless the land area that forms the geographical base for the tenure is controlled by the applicant and thus is not open to management by anyone else. (p. 90)

Mariculture leases should be transferable only with the consent of the Minister. (p. 92)

Each year, holders of . . . mariculture leases should be required to pay royalties on their authorized catch. . . . (p. 94)

Other TURF-Related Recommendations

For reasons I will explain shortly, I will here include several other recommendations of the Commission (Pearse, 1982):

The Department should explore the feasibility of test fishing programs in which commercial fishing vessels conduct experimental fishing according to Departmental specifications in return for all or part of their catches. (p. 43)

Revenues from the sale of fish and eggs at enhancement facilities (now about \$0.6 million)" should help pay for a continued salmon enhancement program. (p. 60)

Canada's Pacific coast should be divided into three broad zones for commercial fishing purposes. . . . (p. 88)

Provisions should also be made for separate licensing of small or pocket areas that offer suitable opportunities for small numbers of vessels. (p. 109)

Commissioner Pearse's Rationale and Conditions

for the Implementation of TURFs as Fisheries Policy

Thus, we can see that TURFs, although a relatively new concept to economic theorists, clearly falls into the category of property rights that can, theoretically, be included in regulatory regimes for industrialized fisheries. Of all the participants at the Powell River conference in 1979 (attended by fisheries economic theorists from around the world), only G.W. Roders from Alaska mentioned the concept of territorial property rights and then only in the context of the displaced aboriginal "use-rights to specific salmon streams and other natural resource areas". The literature indicates that Commissioner Pearse and other economists were only coming to the realization that the concept of TURFs was a viable regulatory alternative for fisheries about the time the final report of the commission was completed. Thus, the Commissioner rationalized:

The progression from unrestricted licensing, to limited entry licensing, to quota licensing, represents successively more clearly defined privileges granted to resource users. A further step in this progression involves issuing rights to the resources in a prescribed area. The rights take the form of leases; like grazing leases, trapping licenses, or forest management licenses, they confer exclusive rights to fisheries resources over defined areas. (Pearse, 1982, p. 83)

Commissioner Pearse here also outlined the problems in this approach as pointed out by commission participants; interception of fish outside the leased area, threats to established commercial fisheries, and the creation of local monopolies. In addition, he noted that this approach was being used elsewhere, with varying results. In Japan, it was expanding rapidly under the control of fisherman's co-operatives. In Oregon, it was an unprofitable corporate venture facing heavy criticism for possible genetic impacts on wild stocks, as well as heavy political opposition from fisherman. In Alaska, it was expanding under legislation introduced in 1974 that authorized private hatchery operations by nonprofit corporations for the primary purpose of producing salmon for the established commercial fisheries.

But Pearse outlined four outcomes of the development of TURFs that could offer positive results:

1. Small-scale projects that minimized biological risks would be developed under the full regulatory authority of the DFO.

2. Habitat management, as well as hatcheries, would receive private attention.

3. The commercial fleet would also benefit.

4. Incentives would be in place to harvest the fish at least cost.

Pearse (1982) summed up what he saw as the most attractive features of this concept:

... the opportunities to harness private initiative and ingenuity in producing fish, linking those who would incur the costs directly with those who would benefit.

(p. 149)

We have now briefly outlined the historical developments in the fisheries and the fisheries management paradigms that paralleled them. Perhaps most importantly, we have described the problem frames and the subsequent problem solutions that professionals-in-practice envision. Before we examine the various problem frames and problem solutions, particularly those that concern the issue of TURFs which were proposed by the publics who appeared before the Pearse Commission, let us examine the perspectives on the social aspects of fisheries management of modern managers.

Chapter 5

Analytical Framework

The Perspective of the Modern Fisheries Manager Re: Fisheries Policies

Clearly, the modern "tribe" of fisheries managers is made up largely of those in the profession of biology. Perhaps one of those most true to this rational/technical faith is Hilborn (1984), who has concluded that the real key to effectively managing the fish is to effectively manage their human predators, the fishermen; one of the new tasks of biological research should be to study the fishing strategy and investment behaviour of fishermen. This follows on the views of Hilborn and others who see the history of much salmon fisheries management as a case of political intervention by fishermen at the expense of the conservation of the resource (Hilborn and Peterman, 1977).

This view sees well-financed and well-organized interest groups intervening at the public's expense and simply not allowing change that would be in the public's best interest. As we noted in the Auditor-General's report, this view tends to be shared by economic analysts (e.g., Crutchfield & Pontecorvo, 1969), and the government auditors themselves. Perhaps Larkin's 1977 statement sums up this viewpoint the best:

Unfortunately, fishermen vote; and once a person has become a fisherman, he can almost be counted on to vote against anyone who doesn't help him continue to be a fisherman and enable him a decent standard of living. From such simple human responses there may flow a long mane of hairy subsidies which directly or indirectly sustain an economic monstrosity. (p. 6)

But in a later paper (Larkin, 1982) this author notes that fishermen, like all people, resent it if they feel they are being manipulated or "managed", and hence the best route to go is open public participation and decentralized fisheries management. Larkin has also recently stated that the political philosophy of the fisheries manager himself is of very great importance:

What will happen in future will be essentially a matter of political philosophy. A free enterprising, private ownership technocrat might favour the leasing of lakes and streams for private fishing, the abandonment of artisanal fisheries as quaint anachronisms, and the rationalization of commercial fisheries to their point of control by a small number of multinational corporations. A socialist might favour their public access fishing only, maintenance of the social status quo in artisanal fisheries by subsidizing marginal operations, more state ownership and control over commercial fisheries and the marketing of fisheries products. In between those extremes most people will muddle along, often inconsistently, in the middle, keeping the politicians guessing. (Larkin, 1988, p. 9)

Modern Management Process

To quickly re-examine the actual salmon management process, Healey (1982), who has probably given us the most candid dissection, describes modern fisheries management as a "seat-of-the-pants" situation. Most of the fish are harvested at a point in time when the biological uncertainties about the total numbers of returning salmon still remain great; the harvesting process itself is put under severe political pressure from the competing user groups just at this time, as well. Despite the influence and recommendation of commissioned economic studies, and of attempts by government to establish pre-season allocation plans, Healey's description continues to reflect real-life fisheries management. To help improve the situation, Healey advocates the development of models "that can take account of potential economic and social consequences of management decisions that may result in changes in stock abundance." Though a biologist-manager himself, Healey appears to be transcending the biologist paradigm that has pervaded the fisheries since the mid-1960s and instead is now advocating an approach similar to that of Schon and Rein. In fact, this appears to be the pattern in fisheries management; professionally trained biologists enter the management ranks and learn, "in the school of hard knocks," of the real social and political parameters of
management. "Life is hard and then you die" is Larkin's summation of the modern manager's plight. But these social factors are clearly presently handled in an ad hoc, rather than a systematic way.

Manager's Prescriptions for Dealing with the Social Aspects of Management

Voiland and Duttweiler (1984) have criticised the professional fisheries science community for not giving enough attention to the "human parameters of fisheries." They concluded that managers should be more receptive to social science research results, and advocate that the managers of the future should receive more training in the social sciences during their university years.

As we have already noted, Pringle (1985) has stated that in his view good science only becomes good management if the management plan or recommendations are acceptable by fishermen; he notes that fishermen are positively concerned about resource management, and "mutual understanding of the concepts of resource basedscience can lead to good resource management." His accounts of personal experiences in this area imply that he, and probably many others, have indeed, successfully applied it. Similarly, Thomson (1982) has noted that the fisherman's co-operation is needed if the legislation relating to fisheries management is to be successful. Kirby (1982), the author of a major Canadian east coast fisheries resource study, recommends that the process for consultation and communication on fisheries policy and programs on Canada's east coast be "formalized and streamlined."

Probably the most serious attempt at remolding the analytic frame used by fisheries managers is one articulated well by Emmerson (1980). Thought targeting artisanal (nonindustrial) fisheries in S.E. Asia, his interdisciplinary study offers a model for fisheries everywhere, for even the most industrialized fisheries must inevitably involve social policy considerations. Emmerson simply adds distribution to the concerns of production and conservation. He advocates a combined biological and anthropological

perspective, to emerge with a "bioanthropological approach", which emphasizes human need:

"Bioanthropologically" oriented policy makers would not only try to use marine biological knowledge to ensure the regeneration and harvestability of the living resource; they would also base their decisions as much as possible on the actual circumstances and perceptions of those most directly concerned--fishermen, middlemen, retailers, consumers and others who benefit from the fishery and its products. Development planners would recognize that artisanal fishing covers many different roles and techniques and is normally a part-time activity. (Emmerson, 1980, p. i)

Rationale for Application of Schon's Analytical Techniques

But none of these professionals offer a framework, a methodology, or a vocabulary for defining the differing interests in the fisheries; this is left in very broad wording. Clearly, an area of research remains to be examined that can help these professionals to achieve a more effective practice of their own professions. It could also be said that the user groups within the fisheries need an alternative method of solving their problems.

A recent paper (Rein & Schon, 1986) deals specifically with "stubborn policy controversies that tend to be enduring":

... the participants in them [the controversies] construct the problems of their problematic policy situations through <u>frames</u> in which facts, values, theories, and interests are integrated. Given the multiple social realities created by conflicting frames, the participants not only disagree with one another, but also disagree about the nature of their disagreements. (p. 1)

Does this outlook offer an answer to our problem statement? Are the professional (and governmental) problem-frames and problem solutions of biology and economics

unacceptable to a majority of the user groups within the fisheries because they see the world from a number of fundamentally different perspectives?

Frame-Reflective Policy Discourse

Rein and Schon (1986) define their method of "framing" as:

A way of selecting, organizing, and interpreting and making sense of a complex reality so as to provide guideposts for knowing, analysing, persuading and acting. A frame is a perspective from which an amorphous ill-defined problematic situation can be made sense of and acted upon. (p. 5)

In terms of policy controversies, these authors note:

... policy controversies cannot be settled by recourse to facts alone, or indeed by recourse to evidence of any kind; because they derive from conflicting frames, the same body of evidence can be used to support quite different policy positions. <u>Policy frames and their underlying appreciative systems are revealed through</u> <u>stories participants are disposed to tell about policy situations</u>.

These problem-setting stories, frequently based on generative metaphors, link causal accounts of policy problems to particular proposals for action and facilitate the normative leap from "is" to "ought". Because the reality of any policy situation is always richer and more complex than can be grasped through any particular story, policy controversies are inherently subject to multi-perspectival accounts. (p. 6)

These authors note the possibilities for a new form of analysis involving framereflective policy discourse and subsequent frame-critical policy analysis. They identify two principal views of the participants in such a policy controversy; inquirers, who are analysing the policy situation, and interested parties, who are "frame sponsors or advocates", and use the inquiry to serve their own interests and make the inquiry into a political process.

Thus, to these authors, the major task of the "frame-reflective" professional policy analyst is to first identify the sources of conflicting claims regarding a single issue, and then to go through a methodological process of translating, restructuring, and integrating the identified views. They stress that this frame-reflective work is affective as well as cognitive; "it involves feelings, and works on feelings" (Rein & Schon, 1986, p. 41).

Surely, the emotion-filled public proceedings of the Commission On Pacific Fisheries Policy offer good material for such frame-reflective analysis.

Defining a New Role: The Frame-Reflective Planner-In-Practice

In adopting this new theoretical approach, we are adopting the professional role for planners that Schon outlines in "The Reflective Practitioner" (1983). We are defining a role for ourselves as intermediary planners, occupying a position which requires us to interact with the many different "stakeholders". Given that there is no working consensus about what constitutes a "public interest", we must work instead to simply practice in relation to a wide variety of special interest groups. Perhaps most importantly, we must work to "understand the field of actors and interests with its potential for satisfaction, frustration, mutual constraint or mutual enhancement" (Schon, 1983, p. 209).

By so doing, we are putting ourselves in the position of being able to formulate issue specific topics for negotiation, mediation, and inquiry. Schon outlines the basis of this new policy approach:

The prevailing responses to policy dilemmas are, for various reasons,

unsatisfactory. A more promising line of attack consists in the development of our intuitive capacity for coordinating frames in the context of concrete situations, so as to enable us to make conscionable choices and to reframe problems in ways that integrate values and purposes that seemed otherwise incommensurable. (Schon, n.d., p. 64)

Authors Fisher and Ury (1983) offer a promising end-use tool for our analytical data; position statements, as can emerge from public hearing such as the Pearse Commission, may reveal underlying interests that are shared, and in some cases, even compatible. These authors advocate the identification, and finally the reconciliation, of implicit interests that underlie explicit positions as the key to reaching agreements between conflicting parties.

Chapter 6

The Testimony of the Publics

The Commission on Pacific Fisheries Policy

as Source Material for Policy Analysis

We have now explored the institutional and social structure of the salmon fisheries, including a necessary look into the history of the fisheries and the history of salmon management. Included in the history of management were the recent recommendations of the Commission on Pacific Fisheries Policy, which include a number of recommendations regarding the concept of TURFs.

In examining the above material, we have learned much about the problem-frames and problem-solutions proposed for the fisheries from within the professions of economics and biology. But what of the user groups? How can we obtain an understanding of the feelings of the users toward the proposals of the professionals? Finally, where can we find the "problem-setting stories" of the participants in the "policy discourse" that Rein and Schon see as offering a new and potentially very powerful tool to the policy analyst?

A data bank that presents an outstanding opportunity for an analysis of this type is the testimony of the publics who participated in the Commission on Pacific Fisheries Policy. The Commission's hearings took place over a one year period, beginning in the spring of 1981. The commission received 193 written submissions which were spoken to and examined in 67 days of public hearings. The hearings took place in 11 centers throughout B.C. and the Yukon. The verbatim testimony of the participants in these hearings was transcribed and compiled into a 14,328 page record. Dorcey (1986) notes that the commission attracted 151 organizations and individuals, including:

Virtually all commercial and sportfishing organizations, many Indian tribal councils and bands, environmental groups, professional associations of biologists and

foresters, industrial organizations, governmental agencies involved in the fisheries and other resource industries, and a large number of individuals. (p. 64)

This data has some possible limitations as data for policy analysis. Firstly, there is no way of knowing if some major coastal groups have not been represented. Secondly, there remains the possibility that some groups dominated the very process of the hearings and therefore weighted the hearings in their favour.

The first point was addressed by the efforts of Commissioner Pearse to publicize the hearings, and in his ongoing endeavours to bring forth creative thoughts from as many people as possible. Beyond that, we must simply note what Dorcey has noted; most coastal groups appeared to have been involved. In fact, it is suggested (see below) that the media involvement in the commission promoted the involvement, in this inquiry, of more parties than in any previous inquiry into the fisheries.

On the second point, the possibility of the domination of the very process by powerful interest groups, we took special note. One group in particular deeply feared the concept of TURFs, and did in many ways subsequently dominate the process, but we were able to map this process of frame nonsponsorship. In addition, we carried out some background research to enable a clearer understanding of the actual levels of participation of this group in the industry. Similarly, we noted the extent of the sponsorship of the concept by many groups and individuals and again carried out background research as needed. Finally, we took note of the Commissioners' personal interest in the concept.

Factors Affecting Public Input and Expression

The Commission on Pacific Fisheries Policy, or the "Pearse Commission" as it came to be called, was an exhaustive process that probably received input from all of the politically active fishery user groups in B.C. In addition, a number of less politically active groups spoke up, as did a large number of individual users. Finally, the commission drew out a number of third parties to the fisheries who were also concerned

about fisheries policy. The public was made aware of the Commission's formation and terms of reference through notices published in both major and local newspapers throughout the province:

All of those who wished to make a presentation on matters within the terms of reference were invited to participate in hearings set up in coastal and interior centers in B.C. and the Yukon. . . . (Pearse, 1982, p, viii)

The commissioner also took pains to have included in the commission process the well articulated opinions of many concerned interest groups:

We need to get a feel (in a public inquiry) for expert opinion and for general opinion--and how concerned interest groups feel about the issues. . . . What I want is opinion--not acrimonious opinion. . . . (Pearse, 1984, p. 12)

In the final report of the commission, Commissioner Pearse noted the mood of the public during the course of the hearings:

The hearings took place against a background of anxiety about the state of the fisheries and certainly about government regulations. Soon after the commission was struck last year, the Department of Fisheries and Oceans announced a series of new restrictions on commercial and recreational fishing. The ensuing debate over these measures and the way they were implemented, heightened concern about fisheries policy. At the same time, Canada's important negotiations with the United States over a new international accord, relating mainly to interception of Pacific salmon, faltered and raised new apprehensions. And several industrial development projects have recently generated public controversies over their impacts on fish habitat. The concern generated by these issues and the generally depressed economic condition of the industry have created deep dissatisfactions with government regulatory policy, and no doubt account for the high level of interest and participation in the hearings. (Pearse, 1982, p. viii)

Indeed, economic and sociological studies show that from 1980 to 1984 fishermen felt the full brunt of the recession. McMullan (1987) documents the agony that the fishing industry underwent during this period; high indebtedness (as a combined result of the over-optimism of the fishermen and the overconfident lending policies of the banks), coupled with low profits (a result of high interest rates, high fuel prices, and particularly poor fish prices), led to a situation where a very large percentage of the fishermen were in very serious financial trouble. Processors also were hard pressed; some went bankrupt, leaving fishermen unpaid for an entire season. Long time observers of the industry note that this period was one of the most traumatic ever for the fishery; never before had so many industry participants been so far in debt (MacLeod, personal communication, 1988).

It is easy to understand, then, the concern of the industry participants who observed the formation and watched the progress of the Pearse Commission. Throughout the commission process, criticism of the regulatory authorities was severe. Also, feelings ran high regarding policy options that the users feared the government would implement. The press picked up on this strong emotion early, and subsequently closely followed all of the hearings. The colour and diversity of the often emotionally charged and combative interest groups in the fisheries made for highly marketable news coverage. In many ways, the Commission became a media event. Certainly, it was the most publicized of any public inquiry yet held examining the fisheries, if not any public inquiry ever held in the province. Reporters followed each hearing and the subsequent stories frequently made the front page of not only local newspapers, but also the largest Vancouver dailies. The public was able to follow the hearings on an ongoing basis.

The high public profile of the commission was also heightened by the hope of change; each user group, frequently under the Commissioner's urging, often brought forth their own "story" of what had been, what "is", and what "ought" to be. Especially

in the midst of the emotional debate over policy options with other users, the user groups expressed some of their most heart-felt and rarely articulated thoughts; they frequently became "frame sponsors or advocates". As we shall see, the issue of TURFs, in a multiplicity of social, biological, and economic forms, was one of the more frequently debated policy options. There can be no doubt that the combination of these factors led to the creation of some very high quality research data. Sponsorship and Nonsponsorship of TURF Concepts During the Commission's Hearings

The manner in which the recommendations of the commission were eventually received by the politically influential user groups, and subsequently by government, cannot be understood without first referring to the interactions and processes which formed an integral part of the commission process itself. Even as the Commissioner was "hearing out" the different speakers, so were the other users, by attendance at the hearings, by obtaining the briefs of the presenters, and through press coverage. We should, therefore, outline some of the most important interactions between the users who "sponsored" and often "advocated" certain specific forms of TURFs, and between others whose "frame-advocacies" most definitely did not include certain forms of TURFs.

The most prevalent "frame-sponsorship" of TURFs, throughout the Commission's hearings, was by Indian groups (see appendix 1) who repeatedly stressed the issues of general aboriginal rights to fish (at that time much less defined in a legal sense), SEP quasi-ranching, band by-law fisheries, co-management, area licensing, and local area licensing.

Interestingly, throughout the commission process, material was consistently presented that indicated a consensus among commission participants on only one TURF issue: Indian food fishing rights. <u>This one form of TURF was approved of, in</u> <u>principle, by all</u>. The B.C. Wildlife Federation and the federal fisheries authorities, however, expressed strong concern that this activity was expanding rapidly and was

becoming unregulatable in that it could jeopardize the conservation of the resource. Apart from Indian food fishing rights, Indian fishing rights were vehemently opposed.

Early in the Commission, a number of individual fishermen advocated local TURF forms (see appendix 8) and, later on, a number of professionals advocated TURF development as well (see appendix 7; J. Davis, the former Fisheries Minister, was notable among these). But the most influential non-Indian presentations concerning TURFs were those of the B.C. Development Corporation. These presentations were especially important, in terms of the political process taking place, for the degree to which they catalysed a very active political campaign <u>against</u> the concept of TURFs. Given by executives, these presentations (see appendix 6, quotes 1-5), reflected a strict adherence to economic theory. In a cold matter-of-fact way, they advocated the elimination of the common property fishboat fishery, which they described as inefficient due to the involvement of too much labour. In its place would be corporate leases, utilizing local Indian labour, that would integrate wild harvest and hatchery production. The reaction to these presentations was emotional. The professionalism of the presenters and the organization they represented, together with suspicions that they were already planning such activities with government, raised fears that such concepts would be recommended by Pearse and implemented by government.

So, while a number of individual industry participants, as well as the Native Brotherhood of B.C., articulated visions of TURF scenarios (SEP quasi-ranching, fishermen-held area leases, etc.) fear of implementation of BCDC type corporate salmon ranches (which at this time were also in the death-grip of their fishermen adversaries in Oregon [Talley, 1982]), resulted in social pressures directed at <u>blocking</u> all TURF concepts in principle.

The Political Processes Leading to Nonimplementation of TURF Concepts

Thus, ocean ranching was stereotyped and "cast" as a corporate form of TURF, that, like the establishment of Indian rights to catch and sell fish, would lead to the

displacement of the present participants in the fisheries. The Commission's ability to act as a forum to discuss and conceptualize completely new socio-economic forms of TURFs was, therefore, stifled. Instead, opposing forces, motivated by the fear of the implementation of a particular kind of TURF, worked hard to publicly discredit <u>all</u> of the TURF concepts. This occurred despite the evidence available from Alaska and Japan that TURF forms could indeed be in the best interest of fishboat fishermen.

Commissioner Pearse eventually recommended the continuation of better regulated Indian food fisheries, the further development of ten-year Indian fishery agreements (including Indian participation in ocean ranching), and included Indians as obvious beneficiaries of his "mariculture lease" recommendations. The "mariculture lease" recommendations included the development of ranched hatchery stocks together with the intensive management of locally leased wild stocks. Area licencing was proposed by the Commissioner for three areas in a form new to the industry participants: ten-year area permits to be obtained in complicated annual bidding processes.

In the MAC council meeting held on January 5, 1983 to decide if these recommendations should be approved, Indian interests abstained (see appendix 1, quote #18), and all of the other participants voted against the recommendations. Shortly after the MAC meeting, the minister announced his intentions to abide by the recommendations of his council. Among the formerly positive Indian interests, unresolved conflict over coastal versus interior Indian access to migrating stocks of salmon, the promising legal potential of the post-constitutional and the soon-to-bedefined aboriginal rights of fishing were the main reasons for the lack of support for these recommendations. But as the concept of Indian fishing gained stature in the eyes of Indian people and government, as both an economic development and a land claims settlement concept, Indian political structures began to take shape that focused upon Indian fishing issues. (The Aboriginal Peoples Fisheries Commission was formed in May of 1983 [see appendix 1, quote #21].) Clearly, the Pearse Commission was a catalyst for

the Indian people to more clearly define, establish, and legitimize Indian fishing rights in B.C.

The opposition force that worked against TURFs (in any form) can perhaps best be documented by tracing the briefs, public announcements, and publicity campaigns of the UFAWU (see appendix 2). As we noted in chapter 2, the UFAWU has frequently seen the implementation of policy which it has considered contrary to the interests of its members. Perhaps, as a consequence, it has developed a practice of reacting rapidly to possible changes in policy that appear to be close to implementation by government. Thus, during the course of the hearings, and especially when the recommendations of the Commission were released, representatives of the Union were quick to give interviews to newsmen, and to issue press releases on Union views of the issues. Probably no other organization within the industry has developed the ability to react with the rapidity, and the effectiveness, of the Union. This ability is a function of the large size of the bureaucracy within the Union, and also of its skill at utilizing the press to convey their point of view. Although the Union probably directly represents only about 22% of the salmon fishermen (see appendix 2), it also, unlike other fishermen's organizations, includes non-salmon fishermen and shoreworkers. As a trade union, it participates in conventions and meetings with other trade unions. This extra load of organizational functions helps to justify a larger number of permanent staff than any other special interest group within the B.C. salmon fisheries.

In addition, it should be noted that <u>The Fisherman</u>, the bi-monthly newspaper of the UFAWU, remains one of the major sources of information for people involved in the fisheries in B.C. Although on several occasions the government has sponsored the publication of fisheries information newspapers, these have all eventually ceased operation. A news item of special importance that appeared in <u>The Fisherman</u> (which is included in appendix 2, quote #6), is "Private, for Profit". This appeared in September of 1982, just as everyone was beginning to mull over the Commission's report after

returning from the summer fishing season. This article reiterated the Union's vision of ocean ranching as necessarily a corporate endeavour that would be developed entirely at the expense of commercial fishermen. This article ignored the development of TURFs by fishermen in such regions as Alaska and Japan, while concentrating on the conflicts that have developed in Oregon between corporate-style ocean ranches and fishboat fishermen.

The effectiveness of the UFAWU in mobilizing other organizations can be seen in the formation of the Fishermen's Survival Coalition. In the period from early Dec. 1983 to Feb. 1984, this Union-organized coalition, which eventually included virtually all of the fishermen's organizations within the industry, was formed and a delegation sent to Ottawa. Although the MAC council had rejected a great many of the recommendations of the Pearse Commission, the Survival Coalition reacted to a "fast-track" task force set up by the Minister of Fisheries, which the Union believed was intent upon implementing even the rejected recommendations of the Pearse Report. Reactive fear was heightened by the exercise of discretionary power by the Minister of Fisheries. In the fall of 1983 he had authorized a sale of fish (Department of Fisheries & Oceans, 1985a) which instantly transformed two Indian CEDC SEP projects into SEP quasi-ranches. (The issue was centered around the Qualicum Band's sale of fish.) The survival coalition members so opposed this and other proposed changes by government that they eventually had themselves photographed in their survival suits on the steps of the Parliament buildings in Ottawa. There they submitted a "Fisherman's Charter of Rights" (Report of the Fisherman's Survival Conference, 1983) as they lobbied Parliament to not pass this Act. The greatly feared policy that they were fighting emerged from behind the mostly closed doors of the government planners as the Pacific Fisheries Restructuring Act. (This Act focused upon the creation of "individual fishing allocations", within the context of area licensing, as a means of economically rationalizing the fisheries.) This, however, died on the order paper some three months before the Liberal government was

defeated. Subsequently, the new Minister of Fisheries, John Fraser, himself an ardent B.C. sportfisherman, was elected on a platform which included the continuation of the "common property" tradition of access to fisheries resources in B.C.

Indian Organizations

A total of 13 Indian organizations spoke out on the issue of TURFs (see appendices 1 and 8). The major TURF issues, in order of the number of parties that spoke to them, were aboriginal rights (in several forms), band by-laws, food fishing rights, area licensing, local area rights, co-management, ranching, and SEP quasiranching rights. The range and diversity of TURF options considered was very great, but the following is a summary:

Aboriginal Rights In Fishing

Most Indian groups addressed this issue, although in a nonspecific manner. Sovereign rights to watershed fishing areas were proclaimed by only one group, the Nimpkish band. They went on to say that this tribal fishery was a private right of fishing, as it had been in existence before the Magna Carta; these rights were never negotiated away and, therefore, still existed. The Union of B.C. Indian Chiefs and the Native Brotherhood of B.C. sought recognition of very broad and unspecified forms of aboriginal rights. Explicitly defined aboriginal rights, as reflected by ethnographic descriptions of traditional Indian economies, were sought by the Gitksan, Owekeeno, Kwakiutl, and Bella Coola. In some cases these descriptions even included historic individual TURF rights that are held by Indian chiefs in some areas.

Band By-laws to Fish

This concept was strongly supported by the Union of B.C. Indian Chiefs, the Native Brotherhood, and the Squamish Band. The Kwakiutl and Bella Coola sought bands' rights through the DFO.

Food Fishing Rights

The continuation of this fishery, instituted through the authority of the DFO, was advocated by the Nishga Tribal Council and the Native Brotherhood of B.C. Area Licensing

Area licencing in terms of splitting the coast into regions of exclusive access by fishing vessels, which would acknowledge the management authority of the DFO, were endorsed by the Nuuchanuulth Tribal Council, and the Nishga, but rejected at this time by the Brotherhood. The Nimpkish band rejected any policy change that would see non-Natives grandfathered into area-based licensing, as this would jeopardize Indian rights. The brotherhood supported this concept if it was brought in at the same time as SEP community development quasi-ranching rights.

Local Area Licensing

The Campbell river area branches of the Native Brotherhood, who are heavily involved in the lucrative Johnston Strait fishboat fisheries, were strong advocates of "district fishing". This was a variation on area licensing involving smaller areas in which they would receive some degree of exclusive access through use of their vessels. The concept of ocean ranching was vehemently opposed by this group, who noted their experience with the local processor-held "cannery licenses" ("drag seine licenses" in glossary) and even private hatcheries of years ago. The Nishga tribal council also supported area-based fishboat rights and firmly rejected the development of corporate, provincial, or federal ocean ranching rights. The Nishga evidently foresaw the continued existence of fishboat fisheries, to which they would continue to have preferential access, after they had achieved territorial management. The Kitimaat Village Council advocated the allocation of fishing areas and their watersheds to Indians.

Co-management

The Union of B.C. Indian Chiefs and the Nimpkish Band used the term comanagement to describe a situation between themselves and the government of Canada. The Nimpkish saw themselves getting 50% of the returning salmon, as had been enabled by the "Boldt decision" in Washington state. The Union of Chiefs extended this possibility to include off-shore water of traditional tribal territories.

Ocean Ranching

Ocean ranching, in the form of corporate control of areas, was firmly rejected by the Brotherhood, the Nishga Tribal Council, and the Bella Coola. The Nishga, in particular, disliked both the DFO and provincial ranching scenarios, while the brotherhood condemned provincial and corporate types.

SEP Quasi-Ranching

The Native Brotherhood of B.C. was the strongest proponent of this concept. It is a form of ranching, under the important premise that only Indian bands (and even then only through SEP community economic development projects) should receive the first rights of development of the concept. It would see a greater, but not complete, degree of economic and political control over DFO administered SEP projects. In their first brief, the Native Brotherhood came out strongly against ocean ranching as had been proposed by the BCDC, and by Jack Davis. However, the second brief presented some eight months later unveiled an elaborate, all-encompassing plan that not only included Indian access to locally ranched fish via fishboat, but also compensation to non-Native crewmen in an accompanying vessel buy-back. The new developments would be allowed to evolve into self-sustaining Indian community ranching rights. As the views of this organization on other TURFs were particularly elaborate, and as it is a particularly prominent Native organization, more descriptive material is included in appendix 1.

Fishermen's Organizations

A total of ten fishermen's organizations spoke out on the issue of TURFs (see appendices 2 and 8). The major TURF issues raised were Indian fishing rights, area licensing, and salmon ranching.

Indian Fishing Rights

The majority of the fishermen's organizations spoke out in favour of Indian "food fishing" rights. However, most of the parties were also careful to explain that they did not want to see Indians given the right to sell fish caught in this fishery. The UFAWU, in particular, pointed out that food fishing should be kept at present levels. In a discussion of ways to settle Indian land claims, an issue it supported, the UFAWU stated that this issue should not be settled with allocations of salmon, as this would shift the cost of a settlement "onto the backs" of the commercial fishing industry. The Pacific Trollers Association supported the development of Indian salmon enhancement to increase the volume of fish produced.

Area Licensing

Area licensing was flatly opposed in all of its forms by the UFAWU. In the Gulf of Georgia, they predicted that the commercial trollers area-licensed here in 1981 would eventually see a majority of their catch allocated to the sportfishery. (This did occur, beginning in 1984.) The Gulf Trollers Association was strongly in favour of area licensing for trollers in the Gulf of Georgia. The Pacific Gillnetters Association was in favour of area licencing for the entire B.C. coast, if it meant dividing the coast into three large areas.

Salmon Ranching

The concept of salmon ranching in one explicit form was vehemently opposed by the UFAWU, who repeatedly raised the subject at their many appearances before the commission. They appeared to conceptualize ocean ranching only in the forms that the B.C. Development Corporation outlined: a corporate structure very close to the Oregon

model that had developed recently in that state. They feared that SEP, and especially the Indian community projects, would develop into the ocean ranching enterprises. (This did eventually occur, beginning at Qualicum in 1983.) The Pacific Trollers Association was also against the BCDC form of development, but expressed interest in fisherman participation in SEP and even the possible development of nonprofit salmon enhancement. The Northern Trollers Association expressed support for the concept of SEP ranching.

As the UFAWU spoke out at such great length on all of the TURFs issues, it is possible to outline not only their views on this issue, but also the many reasons for their vehement opposition. For this reason and also because this organization is so prominent in the B.C. salmon fishing industry, I include more material on the UFAWU in appendix 2.

Individual Fishermen

A number of individual fishermen spoke out on the issue of TURFs (see appendix 8). The major TURF issues, in the order of the number of parties that addressed them, were corporate ranching, grandfathered-in ranching-leases, salmon traps and weirs, and area licensing.

Corporate Ranching

Half of the individual fishermen who addressed the issue of TURFs made a point of speaking against the possible development of corporate ocean ranching. Of these participants, two (Ellis and Arnet) were in favour of the development of ranching, but only under the auspices of government social policies that would keep ranches small in scale. Meadows, Doerkson and Williams saw large enterprise automatically dominating this sort of development (see below). Meadows took note of the patterns of corporate concentration that had occurred in the B.C. forest industry, which, in his opinion, had occurred because of the forms of property rights that had become attached to forest resources. In his view, property rights in fishing would lead to the same type of

corporate concentration. Doerkson saw only large firms as being capable of financing ocean ranching, which was by nature large scale.

Grandfathered-in Ranching Leases

Arnet, Ellis, and Ross articulated a similar vision: through orderly change, the present participants in the fisheries could be grandfathered-in to a system of local area-based ranching. The concept would be a form of economic development tool for coastal B.C. The concept they advocated was remarkably close to that sought by professionals Wilson and De Leeuw, who also saw a "trade in" policy for A-license holders who might want to become ranchers. The vision included coordinated development of both wild and ranched stocks, with much of the same biological criteria as the B.C. Development Corporation. The important difference between these individuals and the BCDC was that these individuals had as a prerequisite for development the enforcement of social policies similar to those that had long been part of the salmon fishboat fisheries: i.e., the allocation and management processes should reflect social as well as economic and biological criteria. In their view, these social policies should continue to protect the interests of the small scale operators, and restrict large scale corporate development.

Salmon Traps and Weirs

Hodgson spoke out for the reinstitution of salmon traps and weirs, if they were brought in under the assumption that such rights should be considered "public rights in common". Kaario saw the historic traps as being oppressive to fishermen, and thus not in any way worthy of consideration.

Area Licensing

Dawson spoke out strongly for, and Kaario strongly against, the concept of area licensing. Dawson saw it as a means to avoid costly overcrowding, while Kaario outlined his view that the area license for trollers instituted in the Gulf of Georgia in

1981 was really a mechanism to allow the government to some day turn the Chinook resource there over to sportfishing interests.

<u>Other</u>

Reder advocated that within the Salmonid Enhancement program, project workers should be paid for salmon fry releases. Indian food ranching was rejected as an option by Doerkson. Ellis supported the settlement of Indian land claims as both Indian and non-Indian leases were grandfathering-in coastwide; the government could purchase blocks of A-licenses, and trade them in to achieve Indian land claim settlements without displacing non-Native fishermen.

Sportfishing Interests

A total of five "sportfishing interests" spoke to the issue of TURFs (see appendices 3 and 8).

Trap and Weir Fisheries

The concept of an exclusive terminal harvest of salmon was strongly advocated by three parties. The steelhead society and outdoors writer L. Straight unfolded a carefully developed rationale for eliminating commercial salmon fishing on the high seas, where only sport fishing would then be allowed, and shifting it to activities involving only traps and weirs. The steelhead society's point of view tended to reflect that of river sportfishermen targeting upon steelhead. The smaller populations of this fish suffer heavily when large-scale salmon fisheries are carried on at the river mouths such as the Skeena. They, therefore, saw both Indians and commercial fishermen as involved in TURFs with the present fishing fleets much reduced in size. It strongly supported other terminal fishing concepts such as SEP ranching, and ocean ranching under the Oregon and Alaska models. Straight, who had already delivered his essay to international forums, supported SEP ranching. He thought it should be seen as a starting point to begin eradicating the commercial fleet, as salmon were re-allocated to a terminal weir fishery. Economic as well as biological criteria were used to justify his

point of view. The Victoria Charter Boat Association supported the reinstitution of salmon harvest via traps.

Corporate Ranching

The Amalgamated Conservation Society raised a single voice against the British Columbia Development Corporation's corporate vision of salmon ranching.

Indian Fishing Rights

The B.C. Wildlife Federation addressed this issue in their four briefs--a larger number than presented by any other participant who appeared before the commission.

Of most concern was the idea that Indians might, through the band by-laws, be delegated responsibilities relating to the conservation of salmon stocks. In their view such responsibilities could only be effectively undertaken by the Federal government.

Processing Interests

Five parties involved in salmon processing appeared before the Commission (see appendices 4 and 8). Three smaller firms put forth their views, as did the largest firms involved in salmon processing in B.C. As a whole, the processors were represented by the Fisheries Association of B.C. As this is such an important organization in the industry, I include more material on it in appendix 4.

Ocean Ranching

Ocean ranching was not advocated by any of the firms, although Gallaugher of Royal Fisheries advocated that research be conducted by the fisheries department on this concept. B.C. Packers was not entirely opposed to the concept, but saw the need for major business restructuring if it were to be instituted.

Fish Traps

Traps were mentioned by B.C. Packers who suggested that the inevitable retreat of the fisheries toward the destination of returning salmon would open the prospect for their consideration sometime in the future. The Fisheries Association noted that traps

and weirs were banned by government edict and, therefore, the salmon fleet structure was inefficient by design due to the social policy objectives of government.

Proprietary Rights

Proprietary rights were discussed by the Fisheries Association, who discredited them due to the serious difficulties they could foresee in defining qualified participants, and in the associated management difficulties.

Indian Fishing Rights

Indian fishing rights for food were supported by the B.C. packers; the same company did not support the conversion of Indian food fisheries to Indian commercial fisheries.

Monopolization of the Coast Line

Vancouver Shellfish and Fish Co. disliked this prospect.

Area Licensing

Area licensing was firmly advocated by Fish Incorporated.

Professionals

Four concerned individuals, who could best be described as professionals, spoke to the Commission on their own behalf (see appendices 5 and 8). Their presentations deeply reflected the "problem frames" of their professions. The most interesting of these presentations was that by The Honourable Jack Davis, a provincial M.L.A. Presenting on his own behalf rather than in an official capacity, this brief reflected the experience of a trained engineer and economist who had been a Federal Minister of Fisheries.

Private Sector Ranching

Mr. Wilson and Mr. Deleew were in favour of a system of ranching grandfatheredin from the present system similar to those advocated by individual fishermen Ellis and Arnet. (Fishermen would trade in their "A" licenses to obtain the right to ranch salmon in specific areas.) Both men were biologists and were aware of the recent advances in

technology related to salmon husbandry. Deleew saw ranching as a means of economic survival for fishermen who would inevitably be impoverished by necessary conservationrelated closures: Wilson simply believed the time had come to experiment with this potentially viable concept.

Economist Davis did not see private sector ranching as being feasible, because private parties would simply not be able to appropriate natural resources rights that were comprehensive enough to be economic viable. It was his view that governmentowned weirs that were leased to the private sector, with fish production partly funded by royalties from the high-seas capture of fish, would, however, be very viable.

Sociologist Pinkerton was in favour of a form of area-based quotas, but under the precondition that such rights should be nontransferable. According to her, transferable property rights in fishing, such as those advocated by the BCDC, would inevitably end up in the hands of capitalists, such as fish processors, who would then sub-contract them on their own terms.

Public Sector Ranching and Wild Fish Harvesting

Mr. Davis supported this concept, especially if it was undertaken by the management agent for the other natural resources in B.C. (the Provincial government), and if the harvesting rights were then leased to the private sector. He saw such a system leading to greater biological and economic viability, thus enabling the appropriation of more government funding towards salmon enhancement. He saw a reduced and economically viable high seas fishery continuing, which could then easily afford royalties that could be used for salmon enhancement.

Governmental Organizations

The federal regulators of the salmon fisheries, the managers working for the Department of Fisheries and Oceans, made a number of appearances before the Commission (see appendices 6 and 8). Though the purpose of these presentations was to clearly and completely explain factual and management situations, these participants also

revealed the biases of professionals-in-practice who were in charge of managing an obviously very difficult-to-manage resource system. It is interesting to note how these views differed from those of the professionals not-in-the-practice of management, the people from the provincial side. The provincial government did not take an active role in the Commission's hearings, but a provincial crown corporation, the British Columbia Development Corporation, prepared two detailed briefs for the commission. These briefs took a strong advocacy role on the on the issue of TURFs, highly theoretical in terms of both biological and economic theory, but low in political feasibility (see appendix 6). Ocean Ranching

Ocean ranching was extensively discussed, proposed, and advocated by the BCDC, who suggested a number of social forms of development. Most consistent was a corporate form that was to be sold to the highest bidder in the private sector. The DFO, in turn, addressed the ranching issue primarily as a response to the BCDC proposals, or under cross-examination by Commissioner Pearse. Outside of the hearings, cross-examination of a top manager by fishermen revealed the best-expressed opinion; reluctance based on the distinct possibility that ranching could only make an already tough-to-manage situation worse.

Area Licensing

This issue emerged, mostly, under the questioning of DFO officials by Commissioner Pearse. DFO people tended to see area licensing as a positive step, as it eased the ongoing management problem of matching catching power to run size. Clearly, the large size of the fleet was exerting a considerable strain upon these managers. The widely known coastwide scenario of a Cape Caution (mid-coast) split was discussed, as was the already-implemented Gulf of Georgia two-area troll fishery system.

Indian Food Fishing

The Indian food fishery was discussed in a Department of Fisheries and Oceans

brief prepared on the subject. The difficulties in allocating for this end-use fishery, after heavy catches by sport and fishboat fisheries, were discussed.

Aquaculturalists

Two salmon aquaculturalists spoke to the commission (see appendices 7 and 8). One was a practicing salmon farmer engaged in pen-rearing salmon, while the other was extensively involved with the recent salmon ranching developments in Alaska.

Private Salmon Ranching

Tidal Rush Marine Farms, represented by Mr. B. Hope was strongly in favour of small scale private ranching. The firm saw salmon farmers and quite possibly fishermen as becoming involved in this activity.

Nonprofit Salmon Ranching

The Regional Aquacultural Association, represented by Mr. W. Griffioen, desired the development of ranching of the type that had been developed by fishermen in Alaska. This was based on the reasoning that the Alaskan experience had been biologically and economically successful. The Association perceived, however, that the DFO was not willing to let go of its control of ranching in B.C.

Chapter 7

Conclusions

A Summary of the Perspectives

Indian Organizations

The Indian organizations presented a complex, rather than a uniform, set of perspectives regarding TURFs. Clearly, the geographically dispersed and diverse Indian peoples who access salmon are different from one another. This is reflected not only in the different social forms that TURFs assumed traditionally, but also in the different policy visions which the many groups outlined and supported. These visions reflect the degree to which the different bands are presently engaged in the industrial economy, and, especially, in the modern commercial fisheries and fish processing sectors.

A striking similarity between all of the Indian groups, however, was an emphasis upon geographically localized forms of fishing rights, even for Indian fishboat fishermen. Even the Native Brotherhood of B.C., which acts as a trade union organization in close co-operation with the UFAWU, sought localized forms of TURFs. This apparent preference for TURFs, despite a major participation in the unionized sector of the fishboat fisheries, is in striking contrast to the stand of the UFAWU, who opposed any form of TURFs.

The statistics also reveal (see appendix 1) that a large percentage of the Indian commercial fishermen worked aboard or operated processor-owned vessels. Historical evidence (see appendix 1) indicates that Indian employment in fishboat fishing and processing has varied greatly over the years as a result of wartime policies regarding Japanese Canadians, a shift from rural to urban processing, and the availability of government funding for the purchase of fishing vessels.

We can conclude that the Indian perspective is unique and consistent with the following:

- 1. Virtually all of the Indian groups advocate some TURF form. Among coastal groups, these TURFs often include fishboat access.
- 2. Except for area licensing, Indian groups generally do not favour the establishment of TURFs for the non-Indian participants in the fisheries. These are opposed because they could pre-empt development options that could become available through future legal definitions of existing aboriginal rights in fishing or political definitions of Indian fishing rights and claims.
- 3. Different outlooks exist between Indian groups which have become heavily involved in fishboat fishing, and hence intercept salmon farther from their streams of origin, and between inland groups, who tend to harvest fish at or close to their streams of origin. A consensus between these groups exists on the need to achieve greater recognition of Indian fishing rights.

In summary, the Indian perspective was a deeply rural one, reflecting strong attachments to the traditional community-centered geographic areas. This was true even for Indian fishboat fishermen. Thus, a policy favouring some form of TURFs is a prevailing theme of the Indian organizations.

Fishermen's Organizations

Most of the fishermen's groups reacted to TURF issues negatively, as a concept that should not be introduced. An exception to this is support for Indian "food" fishing rights; only in this form were Indian fishing rights acceptable.

The input by fishermen's organizations was overwhelmingly dominated by the UFAWU, an organization that presents a clear and consistent perspective on the issue of area-based rights. Though UFAWU statistics and membership restrictions reveal that this organization (see appendix 2) actually represents a minority of the salmon fishermen (and especially a minority of the vessel owner-operators), its prominent role as a trade union for other nonsalmon fishermen and for fish plant shoreworkers enables it to lobby effectively.

Fundamental to the perspective of the Union was its ideological outlook. It put a very strong emphasis upon public rather than private ownership of fisheries. Large capital interests are consistently framed as the oppressor of the working fisherman by the UFAWU. The material presented by the UFAWU presents the point of view that unfettered common property fishboat fishing offers fishermen the best opportunity to effectively withdraw their labour as they struggle to deal effectively with the opposing forces of capital. Thus, any restriction in the movement of these vessels like area licensing or restrictions of access to fish in other forms such as allocation of fish to area-based users, was seen as a potential threat to the ability of the Union to bargain effectively with capital for better fish prices and higher shoreworker wages. The possibility that TURF harvesting would not require fishboats and their crews at all, also loomed as a great potential threat to the UFAWU.

Also consistent within the UFAWU's perspective is a prevailing interest in the conservation of fish resources, and fish habitat. "Wild" salmon and ecological systems, from which fishermen harvest a basically natural system, is seen as very important. Coupled with this is a need for the system to remain within the Union's special definition of a "common property" resource; bona fide fishermen should receive preferential access to resources that should not be subject to area-based ownership, because such ownership once enabled processors to harvest fish with methods that did not require many fishermen. "Salmon ranching" became a term that the Union associated with private corporate rights of fishing. This was considered not only a biological threat to the wild salmon, but also a loss of freedom of social control over the fishery that the working fisherman heretofore enjoyed. With these motivations, the Union worked hard and succeeded in bringing together a consensus within the industry to oppose this form of TURFs, and, incidentally, almost all other forms of TURFs as well.

Thus, the UFAWU remained ideologically deeply opposed to any form of area-based rights in the fisheries. This was in striking contrast to the desire for such rights by Indian fishermen. We can conclude that deep ideological commitment and rural/urban differences underlie the divergent perspectives of the two groups, who in the past have joined forces in a powerful trade union coalition.

Individual Fishermen

From the pens of individual fishermen came a number of TURF visions. About half of the individual participants pushed for the establishment of new forms of area-based rights, while the other half reacted strongly to their introduction in corporate form, especially as advocated by the B.C. Development Corporation.

Almost all of the individual fishermen sought the continuation of social policies that protected the small operator (i.e., the resource allocation process that saw the small boats always allocated a segment of the resource). As a group, the individual fishermen tended to visualize a Federal government-protected enclave for "ma and pa" TURF-operators. But within this protective structure they saw a field of highly competitive operators. Clearly in the memory of many of these coastal people was the historic consolidation of small-operator forest cutting rights by large corporations. Sportfishing Interests

The sportfishing interests presented the most divergent perspectives. About half of these interests were concerned about the formation of TURFs in the form of Indian fishing rights. They claimed that the development of these rights would lead to the biological depletion of fish populations, and the sportfishermen's access to them. Thus, Indian fishing rights were vehemently opposed.

One group supported Indian fishing rights on the assumption that sportfishing access to salmon and especially steelhead would increase as fishboat access to ocean fisheries was curtailed.

The overriding concern of sportfishermen was that access to fish should not be curtailed. Interestingly, the concept of exclusive area-based rights to salmon by sportfishing groups was not mentioned--a commons, from which fish could be freely accessed by all sportsfishermen, was of great value to this group. However, because sportfishermen consumed so many goods and services as they fished for salmon, sportfishing was considered to represent the most worthwhile use of the resource from society's point of view. Especially in the urban-adjacent Strait of Georgia, the sportfishing spokesmen advocated that the commercial harvest of salmon should be curtailed to make way for the economically consumptive activities of as many sportfishermen as possible.

Processing Interests

The processing interests did not project a consensus on TURFs. The historic harvest of salmon by such efficient means as fish traps was seen as once having been a considerable economic advantage to processors. Thus, the banning of traps by government edict, and the ongoing social policies of enabling large numbers of fishermen to operate, have come at the processors' expense. Seen in terms of higher labour costs, this added employment was described as a "social tax" which they had to bear, an added cost that reduced their efficiency at the public's expense.

The processing interests were most concerned with the marketing of consistent quantities of fish to specific and established annual markets and maintaining (ex-vessel) price levels for fish that enabled a competitive position for the processed forms of salmon marketed worldwide. To the processor, reducing the number of boats, and thus increasing the returns to their own boats and fishermen was seen as a better and less financially risky solution to the problems in the industry. As government had created the large fleet by its social policies, it should now "buy-back" a segment of it. Furthermore, a switch to TURFs might leave them out in the "grandfathering-in" process.

Professionals

The presentations by professionals that touched upon the issue of TURFs reflected the rational-technical problem frames of their respective professions. Thus, the two biologists who presented briefs offered ranching solutions similar to those put forth by the salmon biologist "advocates" and "experimenters" of chapter 4. One economist, former fisheries Minister Jack Davis, was a somewhat special case as he had had extensive experience in fisheries management. He clearly and powerfully presented a case for the introduction of TURFs under the same economic criteria as put forth by Commissioner Pearse in his final report. Davis' TURFs, however, were to be crownowned.

The one sociologist who presented voiced concern regarding the consequences of corporate concentration in industrialized resource industries.

Governmental Organizations

The DFO outlook clearly reflected the perspective of a government agency under the heavy stress of responsibility for the management of a biologically and socially complex resource industry. This group sought to minimize the future prospect of management-exacerbating political interference caused by ongoing conflict between deeply adversarial user groups. Thus, only the area licensing form of TURFs which could reduce some of this pressure and improve biological management, was readily supported. Ocean ranching, which from this perspective would tend to only increase social friction, was definitely not favoured.

The B.C. Development Corporation (BCDC) was clearly not encumbered by this heavy management pressure. They advocated a TURF form that implied the greatest degree of economic efficiency with the least intervention of social considerations. This concept stressed a corporate TURF structure that saw the gradual phasing out of the common property type fishboat fisheries. The proposals of the BCDC were generally considered abhorrent by most of the fishery user groups, and were openly opposed; in

fact, most user groups came to associate "ocean ranching" with the form advocated by the BCDC.

Aquaculturalists

The two aquaculturalists that presented were strongly in favour of ocean ranching, but in much different forms than those conceptualized by the BCDC, and the UFAWU. One saw ranching as a "natural" economic activity for small scale salmon farmers, while the other saw it as a natural progression for fishermen involved in the salmon enhancement program.

Reframing and Renaming the Problem

Clearly, the modern fisheries policy planner in B.C. faces a bewildering degree of importantly different perspectives. These perspectives are backed not only by powerful political, economic, legal and constitutional forces, but by strong emotional forces as well. These emotional forces relate to the cultural and historical development of the fishery and are fine-tuned with eloquent spokespeople and readily politically-mobilized volunteers.

As the stakeholders in the B.C. salmon fisheries see the situation in importantlydifferent ways, sets of centrally authorized planning options compiled within the frameworks of economics and biology remain deeply controversial. Attempts to forcibly implement such plans only exacerbate tensions and heighten fears, creating a more unstable planning environment.

So let us "name" and "frame" the problem differently. As we can clearly name social conflict as our greatest problem in the fisheries, let us describe the major conflicts between the users' perspectives. The data point to the following:

- Culture conflict: between the traditions of Indian and British (Canadian) concepts of resource ownership.
- 2. Sportfishing/commercial fishing conflict: between the recreational-industrial sportfishing complex, and the commercial fishing industry.

- 3. Political ideological conflict: between interest groups within the commercial fishing industry.
- 4. Conflict between profession frames: between the analytical frames of the different professions who manage, advise, and plan the fisheries.

Culture Conflict

Clearly, this is the greatest conflict that exists within the fisheries. It is most strongly manifested in the friction between aboriginal persons' fishing rights, and the "public right of fishing", a British legal tradition to which most Canadians are accustomed. The common property tradition is now deeply institutionalized in both the sport and commercial fisheries.

In the commercial fisheries, government policy has reduced the number of boats and attempted to stop the increase in catching power of these vessels. But in doing so, these vessels' licenses have greatly increased in value and thus they have entered the politically and legally powerful realm of investment equity. Now, the also legally powerful concept of Indian TURFs has begun to come into deep conflict with the financial investments of fishermen and processors who have equity in fishboats, and who are accustomed to using them to access the resource. In the sport fishery, equity in services relating closely to sportfishing, and in recreational vessels used for sportfishing, is very heavy. In both activities, cultural traditions have developed which are represented by a powerful emotional commitment to the resource that rivals that of the Native Indians. From the planners' perspective, this conflict is between the modern participants in the commercial and sport fisheries, and the contemporary Indian users of the resource.

In many ways, too, this is a rural-urban political conflict. The commercial and sport fisheries are now predominantly summertime activities of an urban-based Canadian society (see above). The limited entry program and the consolidation of fish processing facilities in urban regions (Farley, 1979) has clearly had a great influence on Indian

peoples. The restricted number of vessels has grown sophisticated, seaworthy, qualitycontrol-capable, and highly mobile. For many fishermen, including an increasing number of Indian "fishboat fishermen", it is more economical to keep their boats near the large processing facilities where services are cheaper and more readily available.

As a result of the long history within Canada of considering Indians as underprivileged peoples in need of continuing economic support, large allocations of Federal transfer payments have been made to the rural Indian Bands. In many ways this is the result of Indian Affairs "band" polices which anthropologist Duff analyzes as inhibiting the mobility of Indian individuals and bands, and the formation of larger Indian communities that might be able develop:

There is no reason to suppose that a settlement pattern which evolved over the centuries in a simple fishing and hunting society will serve just as well in the highly centralized and industrialized society into which the Indians must fit today. . . . (Duff, 1977, p. 52)

Thus merely maintaining heavy transfer payments, as part of the ongoing support for the band system itself, has been a major factor in their continuance, albeit in locations far from the mainstream economic activity in the province. Although the transfer payment system has tended to inhibit Indian economic independence, it has had the effect of maintaining Indian communities which might otherwise have been abandoned. Non-Indian rural communities have generally not received the same level of subsidization as the Indian bands, and in a great many cases, have been abandoned altogether, at least as permanent settlements.

Thus it could be said that as a result of government policies of the past, fishery allocations are now being sought after by the residents of the rural, dispersed Indian communities. There fish resources represent one of the few economic opportunities available in these regions that will enable a break from the welfare cycle, and provide a stepping stone to self-government.

Indian people have developed a very close and special relationship with the fish processors in B.C. Again, chiefly because of the Indian Act, the processors have been a sole source of ongoing credit which has enabled full participation in the industrial economy, albeit not without severe labour/capital tension at times. But dissolution of the Indian Act to make way for concepts like self-government will clearly have a major influence upon relations between the fish processors and the Indian people, and subsequently the industry as a whole.

Co-incidentally, these fishing rights are being re-defined in law just as the established federal social policies of Indian land claim settlement and the Indian selfgovernment concept are advancing. The result is a conflict of growing proportions, a conflict between status Indian people and non-Indian coastal peoples that can all too easily be inflamed into one with racist connotations.

Thus hitherto politically and economically isolated Indian groups are finding themselves to be major players in the fisheries allocation process. Indian groups are increasingly conferring directly with high levels of government and establishing a new consultative process to which the fishboat fishermen, processors, and the sportfishing fraternity are not privy (Department of Fisheries and Oceans, 1985a).

When plans developed between these regional Indian groups and government are leaked to the fishboat fishermen and other users accustomed to negotiated common property access, they are received with indignation and fear. The Indians' new avenue of communication with government circumvents what other groups had become accustomed to considering the exclusive avenue of access to the salmon allocation pie.

From the perspective of those users accustomed to common property access, Indian fishing rights are considered "wrong" because they are a breach of the concept of equal rights of access. A commonly expressed complaint is that now one "racial" group is securing special rights of access to what should be a resource open to all (Greene,
n.d.). The large and increasingly powerful sportfishing fraternity of both sportfishermen and sportfishing industrialists is equally outraged.

From the perspective of the Indian, fishing is a sovereign Indian right never negotiated away or lost in battle to Canada. It is considered central to the economic and spiritual well-being of Indian culture. Against a perspective of dispossession and bitterness in which past and continuing transfer payments can not be discontinued or even continued without serious social consequences, fish allocations offer a way to gradually break free from an old pattern of dependency. The federally managed salmon resource offers great hope among the Indian people for positive social change.

The result is massive political lobbying by both Indians and non-Indians that can only put the officials involved in a very difficult political situation. Put simply, these officials find themselves caught in the no-win situation of being under an obligation to implement a social and even a constitutional policy of government that is politically unacceptable. In the end, this can only emphasize the magnitude of social change that is being felt as a result of the inclusion of existing aboriginal rights in the Canadian <u>Constitution Act</u> of 1982.

Interestingly, virtually all of the Pearse Commission's participants deemed the longestablished concept of Indian "food fishing" rights as acceptable, even though these rights often conveyed exclusive rights of access to specific stocks of salmon in specific areas. Most, but not all of these Indian food fisheries were long-institutionalized activities. Thus, it appears that exclusive Indian fishing rights are not themselves the cause of the conflict. The real point of contention is the extent to which these Indian fishing rights are perceived as legally enabling the curtailment of the ongoing economic and recreational activities of traditional common property fisheries. The courts have yet to define the Indian fishing rights that existed prior to 1982, the kind or nature of these rights, and finally, the extent and limit of exercise of such rights. In the

meantime, uncertainty is introducing a high degree of stress, with the resulting social conflict.

Hence, we would name too-rapid social change, as brought on by the above mentioned constitutional change, as the center of the conflict. As this change threatens to curtail, to an unknown extent, employment and recreational activities of the participants in the contemporary commercial and sport fisheries, it can be seen as one of the major social conflicts in British Columbia. We should remember that although the fisheries are considered economically inefficient by some economists, they remain one of the major economic activities on the coast. Thus the participants in the fisheries have naturally sought, through both political and legal channels, to restrict the definition and obstruct the application of Indian rights. These rights represent politically applied change, as well as constitutional change, these efforts have been unsuccessful, and have only lead to a heightening of fear.

Surely an alternative can now be explored, both on a government level and on a consultative level with the commercial, sport, and Indian users. First, intensive dialogue between the different parties needs to be encouraged. When the parties are ready, mediation needs to be implemented, and aided. Secondly, a comprehensive social and economic impact assessment of the effects of Indian fishing rights upon the present common property fishery participants needs to be initiated. Perhaps this could include mitigation and compensation that could well enable "win-win" situations, rather than simply the bitter and socially wasteful no-compensation experiences of such regions as Washington State, post-Boldt Decision. Participants are constantly retiring from the industry and selling their boats; perhaps a government-sponsored buy-back of such retiring vessels, long supported by such groups within the industry as the Pacific Trollers Association and the Fisheries Association, might see benefits to both the Indian and non-Indian fisheries, with no serious social dislocations within the fishboat fisheries. (A 1971 study concluded that given the high annual turnover in fishermen, no

serious social dislocations need be generated by a fleet reduction program (Hedlin Menzies & Associates Ltd., 1971). The premise of such a win-win scenario is that although some harvesting opportunities might be lost, economic efficiencies would be gained as a result of less crowded fishing grounds. It is clear that at some point the commercial fishing industry must come to terms with the over-capacity problem, for the fleet has continued to increase its catching power by technological innovation. For example, the most recent coastwide trend of onboard freezing allows much more lengthy periods at sea during peak fishing times effectively increasing catching capacity. The high mobility of these vessels tends to further complicate management.

A resource potential that can clearly provide more production of salmon is the gradual harvesting of many "pocket fisheries", stocks too small to be opened to the present large fleets (Wood, 1981; Pearse, 1982). These could, in aggregate, provide a buffer in the event of change, as considerable surpluses are presently not effectively harvested. Although management activity would have to increase to allow this harvest, reduced management generally due to some fleet rationalization may enable government expenditure to remain at about present levels.

Another possibility raised during the Commission's hearings was the concept of paying hatchery operators to produce fry. Perhaps the commercial and even sport fleets could input a portion of the cost for Indians to produce young salmon. Agreed-upon percentages of such runs could be caught at sea and the long-term risks of the Indian ranchers would be reduced. (An example of two groups who could possibly benefit from such a socio-biological contract might be the Nimpkish Band and the Northern Trollers Association. This band sits on a very great Chinook salmon potential, a portion of which could be readily caught and marketed in northern British Columbia.)

Any number of concepts and ideas are available for exploration and discussion. As long as energies and efforts are steered toward creative possibilities, and away from destructive intervention, the issue appears resolvable. Elsewhere, negotiations between

Indian and common property interests that jointly harvest salmon spawning in the Klamath River, Oregon, have met with considerable success (Pacific Coast Federation of Fishermen's Associations, 1985) and offer a valuable study area for B.C. user groups. Sportfishing/Commercial Fishing Conflict

The Pearse Commission brought forth many advocates of sportfishing. Most argued that the commercial fisheries should not only be rationalized, but also that a good proportion of their present catch should be re-allocated to the sports sector. Presenting their cases with a degree of emotion that had hitherto been reserved for the commercial and Indian sectors, they backed their arguments with economic criteria, stating that economics would be best served by such a re-allocation of resources. Many knew that Commissioner-economist Pearse was intimately familiar with such studies, so it was perceived that these appeals were directed to him in his role as the economistpolicy planner.

In fact, several commercial fisheries were severely curtailed during this period and the resources re-allocated to the sportfishery. Although conservation concerns were at first cited as the reasons for these actions, it soon became clear that re-allocation was occurring. The subsequent objection by commercial fishermen was fierce, and accompanied by much-publicized civil disobedience; the fishermen continued fishing until they were arrested. Subsequent legal developments saw the DFO's decision at first seriously challenged, and Bill C-32 was passed to legislate the inclusion of powers to allocated for socio-economic reasons. Enough fuss was created to prompt the Standing Committee on Fisheries and Forestry to tour the coast, undertaken in the spring of 1985. However, a subsequent legal case of <u>Gulf Trollers vs. The Ministry of Fisheries</u>, not only upheld the DFO's decision, but greatly extended their power as well.

Visions of these sportfisheries of the future flew in the face, of course, of exclusive Indian allocations in specific areas, for this would restrict the traditional

common property right of complete freedom of access. Clearly, the stage was being set for a new series of battles.

During the Commission, ways to control and monitor the sports catch were seldom mentioned by the sportfishing advocates. The sports catch was not considered large enough, yet, to offer a threat to the resource itself. In any event, these presenters felt that the commercial sector should, for the public good, be cut back to make way for the socially more beneficial sport fishery; the first increases in sports catch would come from a decrease in the commercial take. This lobby, supported by the B.C. and Canadian Wildlife Federations (largely with rural rod and gun club support), the Steelhead Society, the Amalgamated Conservation Society and eventually by the Sportfishing Advisory Board, presented a strong political front for the development of sportfishing. It also received support from the provincial government, which regulates the freshwater fisheries, and which as a matter of policy, is very active in developing activities relevant to the huge British Columbia tourist industry.

Thus the recreational/commercial clash, like the Indian/Non-Indian clash, emerged from the Pearse Commission as a major conflict within the fisheries. Put simply, the very rapid expansion of the sportfishery created changes, and implications for future changes, that were seen as a new threat to the already fragile economic viability of the other user groups. As an open, common property activity with a participant potential of not only the entire local population of B.C., but also of tourists from far and wide, it presents a formidable challenge to the commercial and sports sectors. Hence, both of these groups have now begun to lobby for the curtailment of sportfishing.

Recent developments in the technological capabilities of sportfishermen, coupled with consistently large numbers of participants, now presented sportfishing as an increasingly consumptive harvester of the resource. In fact, over-fishing by the sports sector in the Strait Of Georgia area has now been identified by the DFO as a major conservation problem (Department of Fisheries and Oceans, 1988). In a

matter of a few years, sportfishermen have not only greatly increased their overall slice of the pie, but expanded sportfishing to be a huge industrial, as well as a recreational, activity. Guiding and supplying services specific to sportfishing-related activities have become a very formidable economic (and subsequently political) force in coastal B.C. In fact, these forces have become so strong in B.C. that they now may threaten the power of the Minister of Fisheries to rationalize the sportfishing effort.

With constantly improving technology and expertise, plus numbers in the 400,000 range, sportfishermen offer a very definite threat to the effective management of the chinook resource. To make matters worse, it appears that a great many people have made an annual practice of freezing and canning quantities of salmon every year. Thus a strong and emotional backlash was felt when the Minister of Fisheries dropped the annual take of chinook in the Strait of Georgia from 20 to 8 chinook. This can only reflect the degree to which this "sport fishery" is actually a food fishery for many. Prominent advertisements in the Vancouver newspapers, sponsored by a "coalition of concerned sportsfishermen" (the B.C. Wildlife Federation, the Sportfishing Institute and the Amalgamated Conservation Society), described even a 3 to 5 annual chinook limit as a "harsh" measure (Sport Fishing Advisory Board, 1988).

Although statistics show that only about 40,000 people presently take more than three chinook a year (Walters, 1988), clearly they spend a great deal of time and money to do so. Thus we must conclude that those in the sportfishing-related business must believe that the possibility or expectation of being able to catch and subsequently consume at least 8 fish per year is <u>the</u> important reason for going fishing.

"... Chinook are worth their weight in gold", the ad reads, concluding with "Don't let the loonies destroy the value of sportfishing" (Sport Fishing Advisory Board, 1988, p. B3). Thus resistance to catch reductions are intense, for a number of people apparently fear severe economic dislocation as a consequence of such policy implementation.

We must conclude that in the B.C. context "sportfishing" carries a much different meaning than in many other areas. Since the pioneer days, it has assumed the status of a "living off the land" activity, as well as simply an outdoor recreation. Clearly, many people have now become economically dependent upon providing services to these very ardent anglers, who appear to include salmon-eating as a major component of their activities. Sportfishing advocate Lee Straight describes such fishermen as "devoted highliners" (Simpson, 1988a).

A transition to a true "sporting" activity, as articulated so well by such British immigrants as sportfisherman-writer Roderick Haig-Brown, is indeed advocated by Commissioner Pearse and, very vocally, by ecologist Walters (1988).

Under this perspective, there exists the possibility that new regulatory alternatives in the sportfishery could now be explored, which could see it as an activity not dependent upon the allocation of a large percentage of the harvestable resource. Under such a paradigm, the focus would be upon experience, rather than consumption; Mr. Straight's "highliners" would now be given the derogatory title of "meat hogs" by Mr. Walters. Pointing out statistics which show that sportfishing continues to draw people even when most rarely catch anything at all, it follows that sportfishing does not require a heavy kill rate per fisherman to be a satisfying and desirable experience. Hence, under this paradigm, reduced daily and annual catch limits would enhance, rather than strangle, the sportfishing industry, for more individuals would have an opportunity to catch or just "play" a salmon, rather than see most of the fish taken by a few ardent anglers.

"Win-win" scenarios between the commercial and recreational sectors could be developed by campaigns (public or private sector) to change the sportfisherman's consciousness away from associating fishing success with the numbers of fish killed. A reduced "kill rate" need not reduce the "enjoyment rate" of this activity.

The public embrace of this concept of nonconsumptive use now appears absolutely essential. The prospect of unrestricted food-sportfishing, coupled with the ongoing mortalities caused by commercial fishing and habitat degradation, offers the distinct possibility of the extinction of southern Gulf of Georgia chinook stocks. Individual sportfishermen will continue to perfect their skills and technologies. This creates a dilemma, for if even only a small percentage of the anglers increase their annual kill, the resource will be pushed beyond its limits.

Enforcement of restricted daily catch limits within the context of a continued year round fishery may be impossible, for there remains the very sad prospect of large scale noncompliance with regulations (Simpson, 1988b). Noncompliance as a form of civil disobedience relates to the misguided perception that sportfishing is not contributing to overfishing, at least not on the scale of those "huge and numerous seine vessels," "hungry sealion populations," etc. By this account, sportfishing is being "unfairly" singled out for over-regulation. Noncompliance with regulations has and can been dealt with effectively for seiners, gillnetters and trollers, but the sheer magnitude (and cost) of dealing with 400,000 cynical anglers out in the vast commons of Georgia Strait is another matter. For reasons outlined above, closure of the fishery in this area, even for a portion of the year, seems a political impossibility. The results could easily be a "tragedy of the commons", laid at the very doorstep of the DFO management offices.

This is an important lesson for other areas of B.C., which could well follow suit as the sportfishery expands rapidly coastwide. Winter closures, at least, need to be considered until such time as there is a shift to truly nonconsumptive sportfisheries. The alternative is to face a long-term increase in social conflicts and conservation problems in these areas.

Again, rapid social change lies at the heart of this problem. What is needed, firstly, is solid social contracts on which to base sportfishing regimes, where compliance is obtained, in most cases, on a voluntary basis. A key here will be multiple studies of

such chinook mortality factors as drum-seiner by catches; modifications of such operations to include forced brailing may be one of many workable compromises in seeking a long term social contract. Otherwise, sportfisheries subject to noncompliance to regulations tend to become uneconomic to manage; enforcement costs get too high, or simply remain ineffective, and the resource is depleted. In the case of the Strait of Georgia, long seasonal closures (now working effectively for the commercial fisheries) probably remain the only effective way to bring fishing effort in line with the available harvest. It is interesting to note that almost 30 years ago Haig-Brown (1961) advocated closures as well as more strict controls on sportfishing.

These changes signal the passing of an era in B.C., one that will not occur without considerable social trauma. The sooner these unpleasant changes are undertaken, the sooner a large scale (and now non-consumptive) sportfishing activity can be reinitiated. Without large scale and effective public dissemination of biological studies, which leave no room for indiscriminately shifting the blame to other user groups, the sportfishery may even further contribute to a conservation disaster, with serious long-term negative consequences for the commercial and Indian fisheries. Surely, this conflict, like culture conflict, shows the need for the development of an ongoing and intense process of mediation that would seek to establish lasting socio-biological contracts between the user groups that harvest the Gulf of Georgia chinook. Political Ideological Conflict

This conflict largely reflects the strongly held views of the politically powerful United Fishermen and Allied Workers Union, whose political ideological base is so far to the left that it barely registers on the Canadian political barometer. The issue here is not that this ideology should be opposed (for accommodation of cultural and ideological minorities is a cornerstone of Canadian public policy) but that it must be adequately accommodated. As public advocates of extreme forms of state ownership and control of natural resources, the Union's perspective conflicts not only with some of the

assumptions of the economic analyses used by government appointed experts such as Commissioner Pearse, but also with the Indian concepts of territorial ownership of fisheries resources.

In one way, the Union has grossly misinterpreted the ideological context of TURF concepts. Judging from experiences elsewhere, TURF scenarios can be developed that are as far to the left or to the right as one wishes. But the Union simply concludes that all TURFs will create institutional change that will displace them as fish harvesters. As noted several times in this thesis, the Union was able to predict with some accuracy the social outcomes of policy changes implemented by government that were supposed to be in the interests of fishermen (e.g., the two-area troll licensing system). Thus, in a suspicious mode and without clearly articulating their objections to the economic theory applied by the Commission, the Union rejected the entire Commission report. It concluded that the report was not in the best interests of fishermen.

Two premises of the economic models applied by Commissioner Pearse may indeed be inappropriate and may highlight the Union's objections to TURFs. The first is that the Commissioner, for all intents and purposes, ignores the processing sector as a potential destabilizing agent in the acquisition and control of the proposed property rights. In particular, though the concept of nonpricing competition and corporate control and concentration are discussed by the Commissioner, ways to curb or prevent them are not laid out in a way that the Union finds convincing. Yet economic studies, as well as articulate industry participants (see above), clearly note that nonpricing competition greatly affects the actions of the harvesting sector in the B.C. salmon fisheries and leads to heavy corporate concentration.

Economists Clark and Munro (1979) have noted that most economists' models ignore the processing sector and concentrate instead on the harvesting sector, while the clearly oligarchic nature of many fishing industries worldwide renders such an assumption "quite

invalid". Scott and Neher (1981) use "the check of potential competition for raw fish . .. [and] potential or actual intervention under anti-combines legislation" (p. 36) as reasons to believe there is nothing really to worry about. This kind of economic logic is surely what Schumacher (1974) would call the "fragmentary" logic of economics; it is simply not taking into account all of the market realities. For the UFAWU has a total distrust of the anti-combines legislation of Canada. Under these laws, government agents have accused the Union, rather than the large fishing companies, of restrictive trade practices (Rose, 1979; North & Griffin, 1974).

The Union, and probably the majority of industry participants, might support recommendations that adequately took into account nonpricing competition and included controls on corporate ownership but these rules would probably have to be defined by the industry participants in negotiated agreements. Indeed, it appears that in Alaska, the inclusion of a stipulation, by statute, that prohibited corporate or partnership ownership in a new area based rights scheme, was expressly designed as a way to "strengthen the individual fishermen's bargaining position vis-a-vis fish buyers and processors" (Adasiak, 1979). Here, a TURF scheme to establish "nonprofit hatcheries" was strongly supported by such powerful fishermen's groups as the United Fishermen of Alaska (Daniel, 1976) and has not caused undue hardship to fish processors (Adasiak, 1979). But Pearse offered only "criteria" to be developed by government; considering the obvious suspicion of several fishermen's groups that the government and the processors were at times involved in collusion (see above), such a proposal seems doomed to opposition by fishermen, and particularly the UFAWU.

A second assumption of the "common property" economic model is that of the inevitable depletion of common property natural resources systems, or the drop to a point below maximum sustained yield as a consequence of over-harvesting due to too much fishing effort. Although such a scenario appears to be developing in the sportfishery (see above) the commercial fishery has a relatively good record. The

B.C. salmon fisheries, despite an ongoing overcapacity problem, enjoy a sustainability that is the envy of many fisheries management regimes in other parts of the world. As we have seen, conservation, as a concept, was grasped by manager and user early in the history of the B.C. salmon fisheries (see chapter 1). The conservation ethic was, and remains, a value system of importance in B.C. (MacLeod. 1983).

This concern with conservation by fishermen is noted by North and Griffin (1974). They documented the Union's fear that the herring resource was being badly depleted during the years of the reduction fishery. "Time and again" the fishermen asked the federal authorities to close this fishery <u>before</u> it collapsed. (It eventually did collapse, and had to be closed down completely for many years.) Since that time, the Union's policy has been to support smaller (optimum yield) annual quotas for the new roeherring fishery, rather than to become subject once again to the economic and social consequences of another collapse. The Pacific halibut fishery is another example that is often mentioned in which the fishermen played a role in the conservation of the resource (Jensen, 1988); a "voluntary lay-up system" contributed significantly to the successful management of this long lived and vulnerable fish (The International Pacific Halibut Commission, 1987). Clearly, the assumption that fiercely competing common property harvesters can, over time, assume the role of husbanders and protectors of a fisheries resource needs further study. Long before the modern environmental movement was born, fishermen of the UFAWU were a key force in preventing the damming of the Fraser River. This was just one of many tough battles which, if lost, would have seen wild salmon disappear as they have in most other regions of the world (see Netboy, 1973).

Thus, the Union has good reason to doubt many of the premises of economic theory as applied to fisheries. They simply conclude that a "perfect market", where equality of opportunity exists, is not a realistic way to define the B.C. commercial salmon fisheries. And fearing TURFs would be applied, inevitably, in a manner not in

its best interests, the Union publicly promotes a myth that all TURFs are like Oregontype ocean ranches and will lead to corporate control. The Union ignores TURF scenarios where fishermen have benefited. This is despite the fact that figures from the "nonprofit" ocean ranches of Alaska that are run by fishermen are probably among the most successful aquacultural operations undertaken anywhere in the world (Allee, 1985).

The UFAWU now finds itself opposing the concept of exclusive Indian territorial fishing rights. This puts it in the uncomfortable position of supporting Indian claims, and at the same time, opposing any negative consequences to their own membership which might be the outcome of such change. The Union's position, supported throughout the fishing industry, is that Indians should receive only food fishing allocations. Any other Indian allocations of fish for commercial purposes, such as a result of "land claims" settlements, should under no circumstances be dealt out at the expense of those who are dependent upon the existing industry. But at the same time, the Union understands, and sympathizes with, the social needs of the Indians.

The UFAWU and its active bureaucracy and volunteer lobby groups remain an ideological bastion of deeply socialist views, not only within the fishing industry, but within Canada. And as a consequence of the degree to which the membership of the Union is committed to its ideological viewpoint, this problem-frame and problem-solution will continue to be an important force in terms of the nature of the resource allocation process that takes place among the common property users.

The idealism of the Union, however, is tempered by the business realities faced by its members, especially those who hold considerable equity in fishing vessels and licenses. Unfortunately, adhering too strongly to such an ideological outlook in the face of one of the most competitive and entrepreneurial of all of the Canadian industries can be costly. In addition, the radicalism of the Union is also tempered by the conservatism of its main adversary, the Fisheries Association.

Recently, the Union has put a great deal of its very considerable energies into providing fisheries technology and aid to third world countries. This is an area where the Canadian government policy objectives and Union objectives probably overlap. Here the Union has exhibited an intense urge to give both financial resources and time. Surely, it is time for government agencies, such as ICOD, to begin working very closely with the UFAWU on such projects.

Conflict Between Profession Frames

This is a conflict that exists within the sphere of policy analysis and planning and within the profession of fisheries management itself. Is the fishery to be managed for biological yield maximization, for economic efficiency, or for socio-economic goals?

Clearly, basic biological principles must be adhered to in the management of these fisheries, for they are extractions from essentially wild marine ecosystems. Similarly, the large and small businesses involved in fishing and fish processing remain high risk, but often profitable, enterprises despite the effects of social policies. The same rules of commerce must apply to them as to any other Canadian business, large or small. But in this industry there is clearly an added strain upon the government since the day-to-day process of salmon management carries huge distributional implications.

The most obvious manifestation of the long standing social policies in the fisheries is the sheer number of fishermen and fishing boats; employment maximization has long been a key element of these policies. In the ongoing, everyday process of listening to and subsequently deciding upon the recommendations of his advisory council, the minister's decisions continue to have a huge bearing upon the distribution of the wealth from the fisheries. The minister can, at his pleasure, issue more fishing licenses. Perhaps most important in terms of implementability of policy is a deep need to find solutions that adequately accommodate the historic social policies which are an integral part of the economic system. If some policies are deemed expendable, their phase-out must be accommodated in an orderly, upfront, and understanding fashion. Economists

Scott and Neher (1981) refer to a "Canadian social contract" that dictates that society as a whole "bear at least some of the burden" that natural or statutory change inflicts. When viewed in this way, such concepts as vessel "buy-backs" are fair ways to alter the system.

But the Auditor-General's report, like the Pearse Commission, reflects a too-deep adherence to neoclassical economic theory. Here, the elimination of redundant "capital and labour" remains central to the analytical framework and is even a reason for not investing further government funds into resource enhancement. Hence, economic analysis, when not effectively buffered by other social sciences that focus on such components as nonmonetary cultural values, tends to ignore the special social parameters of the fisheries. Instead, economic analysis tends to outline problem-solutions that involve change which cause social change on a scale far too great for this very political system to accommodate. Surely, it is inappropriate, then, to ask an economist to be a major agent of change for the fisheries.

Equally contradictory is the existence of biologist-managers as the predominate professionals in charge of managing the fisheries. With a long history of social objectives as a key element of the government system associated with the fisheries, putting people in charge who are professionally trained in biology alone simply does not make sense. Surely, it is time for the "biological tribe" to assume a more appropriate and comfortable position, that will enhance, rather than constrain, their capacity to be effective in their own field. Their role should perhaps be that of technical advisors who constantly brief the manager on the biological parameters and trade-offs involved in any one fishery, given the ultimate priority of the fisheries to be managed within the bounds of good conservation practices. In this role too, their dedication to the resource should be applied with full force, unfettered by social and political pressures. In a system becoming increasingly vulnerable to overexploitation as a result of effective

interest group lobbying, a system allowing free expression of biological opinion (that is beyond the influence of interest group politics) is most important.

As we have seen, these fisheries are complex human, as well as biological systems, necessarily involving extensive negotiation and conciliation between users and managers. New influxes of professional planners, negotiators, and communicators need to be brought into the fold, not only as managers, but as policy analysts and planners as well. Economists, too, should perhaps assume roles as technical advisors to the resource planner and administrator; this is a role that will, again, enable them to enhance their effectiveness.

Dorcey (1986) has noted the difficulty in bringing together the wide variety of scientists involved in coastal resource governance. In the field of fisheries, other disciplines such as sociology (Marchak et al., 1987), anthropology (Pinkerton, 1987b), and law (Wildsmith, 1982) are entering the realm, since the expertise of these professions is sought after by planners and managers-in-practice. There needs to be a framework and process for the synthesis of professional inputs from diverse sources, and not a quick grab for such expertise when it is suddenly needed. All can contribute to better-managed fisheries if their findings are listened to with care and sensitivity and not with the bias of inter-professional competition for recognition and research funding. A good precedent appears to have been set in the U.S., where anthropologists have recently become members of committees that advise regional fisheries councils (Paredes et al., 1985).

Perhaps most importantly, the time has come for the profession of economics to re-examine it's human behavioural assumptions. The anthropology of economics itself, now needs examination by economists, for example, Schneider (1974) and Schumacher (1974).

It is concluded that economists must now begin to working much more closely with anthropologists, especially since much outstanding work in the realm of fisheries has

been accomplished by these scientists (e.g., Wadel, 1969; Mariolo & Orbach, 1982). But this work appears to have been utterly ignored by economists. Economists such as Crutchfield (1985) seem to be only now comprehending that factors such as occupational prestige, independence, and other "noneconomic factors" have a huge bearing upon fisheries everywhere.

Identifying Pragmatic Planning Principles

Reflecting upon the frames of participants in policy controversies, and from here forming new understandings of the multiple social realities created when these frames conflict, offers a very normative, yet practical way, to more clearly understand some of the stubborn policy controversies in the B.C. salmon fisheries. The questions we need to ask now are: "What can we learn from planning work in the past?" and "What specific planning processes can we recommend for the future?"

The Pearse Commission as an Exercise in Social Learning

It is clear that centralist planning based solely upon rational/technical models (such as the science of economics) does not necessarily constitute the most effective form of planning practice in the B.C. salmon fisheries. Assumptions that rational/technical economic models serve the public interest and should even be unilaterally imposed as is possible within the authority of the discretionary powers of the Minister of Fisheries, are assumptions with poor implications for regulator-user group relations, and for political implementability.

In our example of TURFs, Commissioner Pearse recommended the problem-solution TURF option within the model of modern fisheries economic theory; the Federal fisheries authorities should develop these pilot projects under the assumption that they will serve the public interest. But evidence from the proceedings of the Commission suggests that no clear consensus existed within the industry concerning the development of new forms of TURFs. In fact, if there was a consensus about future TURFs, it was that future developments in this area should reflect past cultural and historic

participation in the fishery and include a continuation of the social policies that are now an integral part of the economic system.

Yet, Commissioner Pearse proposed TURF recommendations that did not clearly establish the ways in which stated social policies were to be applied to them. In addition, he added a lottery scheme for the fishboat fishermen that involved far more social and institutional change than the system could possibly bear. This served to compound uncertainty, create paranoia, and re-intensify the Indian-commercial-sport conflicts.

Consequently, opposition to the concept of TURFs, as were recommended in the final report, was very strong. They were found to be unacceptable even to Indian groups, who were hitherto the strongest supporters of the concept. This did not mean that they were now rejecting the entire concept, but simply that they were rejecting the form now recommended in the final report. A consequence was that the whole concept was then discarded, without even the option remaining for a pilot project; the fisheries remained trapped in an inert and paralyzed position.

However, the transfer of the energy and efforts of the user groups from political infighting to resource development has been experienced during the years of the SEP program. Such a shift of energy offers the possibility of great social benefits from marine husbandry like those other maritime countries have recently begun to enjoy. The abandonment of the continued development of extensive aquaculture for salmon in B.C., as could be planned and institutionalized through the careful development of new, politically acceptable TURF models, would mean throwing away one of the greatest resource attributes that this province possesses. For, as in Alaska, the opportunity exists (through the development of TURFs) to break the boom and bust cycles related to a complete economic reliance upon the variability of natural ecosystems. Also, TURFS can be developed as an insurance against situations that lead to the recurring economic collapse of the salmon industry (Allee, personal communication, April, 1987).

The powerful economic and social potential of this concept can perhaps best be understood by looking at the market analyses of the Norwegian salmon farming policy analyses. They see potential volumes of Pacific salmon ranching product as one of the biggest uncertainties facing pen-reared salmon market development in the U.S. (Dale et al., 1987).

The process of the development, recommendation, and eventual rejection of the TURF concept within the context of the Commission on Pacific Fisheries Policy illustrates the inadequacy, too, of such commissions as an effective planning tool. This is not to say that this process was not a valuable one with many beneficial spinoffs; there can be no doubt that during the course of the hearings more people aired their views than in any previous inquiry into the B.C. fisheries. (This result was in a large part due to the special personal efforts of this Commissioner). In the end, the prerogatives of the Commission process (that of centrally delegated individual power) permitted application of undistilled modern economic theoretical models that proved to be politically unpopular.

The Commission attracted much media attention, and thus drew many in the industry to air their views. It benefited the Commission as a policy making process. But, in terms of the concept of TURFs, this had some negative implications for a fair airing of these policy options. For in turn, an interest group that had an intimate acquaintance with the press and who opposed TURFs in any form were able to focus public attention upon corporate TURF options that were introduced in the U.S. Pacific Northwest, and which had involved a great deal of social conflict followed by biological failure. Subsequently, biologically and socially successful TURF models in Alaska and Japan were deliberately ignored, as opposing user groups focused public attention upon deeply controversial TURF models in Oregon. Hence, a state of inertia was created where new concepts and ideas were excluded even from consideration.

Thus in fisheries planning in B.C., it appears especially necessary that planners have a firm grasp of the unique social forces that are as important to the fisheries system as the fish themselves. As our example of TURFs emphasizes, the perspectives of the user groups in the B.C. salmon fisheries conflict to a very large degree. So great is this conflict that virtually all of the policy options involving TURFs are simply politically and logistically unimplementable, by legislative means, from the perspective of the centralist Federal fisheries managers-in-practice.

Annual Allocation Planning

Officially, the allocation of the salmon resource is made by the Federal government. However, at another informal but crucial level, the resource has been allocated in pre-season planning with the major user groups, with the UFAWU playing a major role. This group has always advocated for an averaging of incomes between the gear types and, interestingly, Pearse's 1982 recommendations regarding fleet reduction also reflect an attempt to affect each gear group equally. Thus, it is clear that those groups most influential in the informal allocation process have a very great influence upon the resulting distributional influences of the allocations that take place. As we have seen, certain key interest groups have had a very great influence upon the governments' social policy as it relates to fisheries.

These findings agree with those of anthropologists Miller and Van Maanen (1983), who note that:

Particularly in the Pacific fisheries, fishermen have redefined traditional patterns of work within and around the myriad regulations, restrictions, and court decisions which constitute fisheries policy . . . all fishermen realize that the making of fisheries policy is as critically affected by the human condition (the politics of international diplomacy, court cases, bureaucratic procedures, problems in interagency and management communication, parochialism, etc.) as they are to the biological conditions of the fishery. (p. 378)

The data we have examined here clearly reveals the importance of the MAC council as a vehicle for these allocation plans and also reveals the fears of several groups that this vehicle for allocation consensus will be over-ridden by the DFO. The DFO, under the discretionary power of the Minister, can of course override these allocation plans at any time. But, in real life he seldom does, for he would face heavy political repercussions if he were to do so. The Gitksan Wet'suwet'en Tribal Council Band By-Law issue of 1986 is a case in point; here the Minister rescinded a decision to allow an inland Indian commercial fishery after being put under severe pressure by the non-Indian interests. This political turmoil was a direct result of carrying on "co-management" planning between Indian groups and government in complete isolation from the "co-management" planning between commercial and sportfishing groups and government.

Clearly, such incidents reflect the existence of a social contract between the harvesters and managers that is not written in law or even policy, but which nevertheless exists and must be acknowledged.

The Canada/U.S. Pacific Salmon Treaty

The negotiation process as undertaken on an ongoing basis by the Canada/U.S. salmon treaty negotiators is an example of a working methodology. This treaty, which is probably the most complex bilateral fisheries treaty in the world (W. Shinners, personal communication, 1988) has seen positive results after years of intranational and international conflict and negotiation. During the course of these negotiations, many complex conflicts were encountered, yet the result has been implementable resource development planning.

The procedures established and undertaken by the treaty makers are worthwhile study and research material for possible application in the domestic arena. They appear to have been structured to facilitate bargaining, in that important principles are established from the onset.

Other good examples involving progress in the resolution of conflict in both international and domestic areas of the fisheries management arena are the planning processes of the SEP program, and the annual management and allocation planning now implemented expediently by the International Pacific Halibut Commission.

New Planning Roles

Within the complex socio-political context of the B.C. salmon fisheries, there appears a need for planners to re-frame their role in a more intermediary form, in which the importantly different ways in which the various user groups frame the problems in the industry, and outline solutions to these problems, form an essential component of policy development. The day may be past when a single professional person, even if he does reflect the most sophisticated analyses his profession has yet developed, can be expected to single-handedly solve the problems of complex fisheries economic/socio/biological systems. The issues of informal social contract and Indian access to the resource present variables that mean that plans can not be implemented without conciliation and negotiation with the interests within the industry. Without losing sight of the values of rational-technical methods, surely the time has come to include new methods of intra-group social learning and negotiation that will enable the policy maker to accommodate major social change.

The reflective practitioner of fisheries management in B.C. should incorporate planning techniques that take into account:

- 1. A growing body of technical information relating to the ecological systems from which salmon are extracted.
- 2. The human parameters of the management system, as defined by the perspectives of the user groups that interface with the resource, and the perspectives of the politicians and professionals who manage this system.

In terms of the history of Canadian fisheries policy, the last mentioned option represents a major change. Centralist planning processes based upon rational-technical

models would give way to "frame-reflective" processes in which the planner would occupy an intermediary position between the many different stakeholders. This could probably work only if these stakeholders were given real power to implement the plans developed together with these planners. Thus, to avoid political intervention the discretionary powers of the Minister of Fisheries would have to be greatly reduced. This reduction in the power of the fisheries minister and his managers to recommend how fish stocks should be allocated would also deprive today's biologist-managers of much of the power they wield. On the other hand, some of their best biological plans would be less susceptible to political intervention than in the past. Perhaps a better alternative would be to delegate powers to close "endangered" fisheries by properly adjudicated councils of professional biologists.

New Planning Forums

It was concluded earlier that the forum of the Pearse Commission was good because it showed that persons of creative minds and honed social skills can do much to create an environment for improved social learning on the part of all involved. As well as social learning, outright public creativity can be stimulated by the right personalities. But, we also concluded earlier that single-profession-frame management or planning is not a rational means of dealing with such complex resource management systems. In fact, such forums can easily backfire to create new and long-lasting problems. Extracting what we can, though, it can be seen that well-stimulated social learning exercises generated very positive effects for a time during the Pearse Commission, although these efforts were dissipated when the focus shifted back to the prerogative of the commissioner to recommend, too rigorously, market solutions. Even so, great and lasting benefits ensued and clearly public forums, with individuals at the helm, offer workable processes, as long as the central figure can retain a truly intermediary role.

The PARK and CFIC councils are excellent forums, which must be supported and stimulated. But these remain centralized advisory bodies which quite naturally support decisions favouring the urban-based participants, as opposed to those of the smaller coastal communities. In this way there is a kind of alliance between urban (Prince Rupert and Vancouver) advisors and bureaucrats.

More than any other single move by government, it is important that the new Indian communities fisheries planning processes be merged, or at least coordinated, with the planning processes undertaken by the common property users. This will be an ongoing culture shock of major proportions, for it will involve communication between fundamentally different world views. But, it must be undertaken.

The alternative to communication and compromise, recourse to the courts, can offer only an escalating social conflict that will probably end in serious confrontation. Civil disobedience and, eventually, violent confrontation, seem an inevitable outcome of noncommunication and noncompromise between the conflicting parties.

Surely the methods of negotiating by "principled bargaining" techniques, as advocated by Fisher and Ury (1983) offer one appropriate tool for the resource manager and planner working in the B.C. salmon fisheries. One of the ploys considered important by these authors is the policy of deliberately making emotions explicit during negotiation, and thus freeing the parties from the "burden of unexpressed emotions". These authors contend that the emotional release obtained through the process of recounting grievances and the lack of support offered through such outburst by the opposing side lets people "speak themselves out . . . leaving little or no residue to fester". In the emotion-charged and indeed, "festering" B.C. salmon fisheries, this seems as a good starting point for the negotiation process.

Criticisms would probably be pointed, with good reason, to the traditional lack of political involvement in the planning process by large numbers of the stakeholders. This might lead to the subsequent domination of the process by a few powerful groups that

could not, in the end, resolve disputes with compromises that represented outcomes that would not see the greatest social and economic benefits for Canadian society as a whole. Thus, perhaps some of the fundamental premises of Canadian fisheries policy would have to now be rewritten. Rather than simply listening intently to interested parties, a planner's role would be to discover how large a segment of the stakeholders were represented by any one opinion and to also actively seek out opinions among less vocal and organized stakeholders, as Commissioner Pearse had done.

It is of great importance that B.C. salmon policy planners do not take sides, officially or unofficially. The negotiation process between the respective stakeholders as expedited and financed by government must, in the end, be the means by which lasting social contracts are struck. This must include rational biological and economic logic; which should be communicated throughout the process by professionals in these and other fields.

It is also important that the planning process itself be a deeply emotional and conflict-ridden process in which the parties are constantly in full and unfettered communication with one another. This process must be prolonged, to give time for emotion, fear, and indignation to be gradually overridden by compromise, acceptance, and agreement. The outcomes of such planning processes need to be implemented in an open manner, without risks of rumour and fear of forced change undoing hard-won levels of confidence. In conclusion, it can be seen there is no "quick fix" to the social conflicts in the fisheries. But past conflicts have proven amenable to intense social learning processes, and there is every reason to believe that such processes can continue to be valuable.

Surely it is time to build upon the success of these planning experiences and, despite the magnitude of the conflicts now at hand, unfold the vision of a biologically sustainable B.C. salmon fishery with a resolvable, rather than a stalemated, social climate. Surely the greatest potential resource of the B.C. salmon fisheries are the

many people who are so passionately dedicated to it. If their considerable emotional energies can be directed away from social conflict, considerable biological and economic potentials can be realized. Few other modern, sustainable resource industries can so clearly define such a potential in both social and economic terms.

Conclusions

- 1. There simply is no "quick fix" that can be applied by government to remedy the problems of social conflict (and the social and economic problems that stem from this conflict). Past conflicts have proved amenable to intense and productive social learning processes, and surely it is in the public interest for planners to study, support, and further stimulate these processes. Though they will continue to be very emotional and at times painful exercises, they can be kept ongoing if planners are able to effectively undertake an intermediary role between the user groups.
- 2. More professions should be brought into the processes mentioned above; and they, like biology and economics, should undertake advisory roles where they can present professional opinion, unfettered by political compromise.
- 3. To avoid conservation objectives being compromised by the Canadian democratic process, it appears worthwhile to delegate authority to councils of professional biologists who would be empowered to close "endangered" fisheries. But intermediary planners, rather than biologist-managers, would be in a better position to facilitate the ongoing and rational management of the salmon fisheries, which constitute complex human as well as biological systems.
- 4. The modern user groups in the fisheries have proved capable not only of organized planning exercises on private levels (i.e., CFIC) but also of merging private objectives with the rational ones of the government planners (MAC, PARK, and the Canada/U.S. Salmon Treaty). Again, it is worth noting that

these exercises have all included intense social learning processes among the full diversity of fishery participants.

- 5. Individually adjudicated inquiries such as commissions can be very valuable in "bringing out" the participants, but they easily back-fire and become strongly counter-productive if the prerogative of the appointee allows him/her to recommend too-radical change.
- 6. The user groups within the B.C. salmon fisheries have become highly professional lobbyists and unpopular policy change can be effectively obstructed by them within the frameworks of the Canadian democratic process. Therefore, the involvement of the user groups in the planning process is a prerequisite to success.
- 7. The "co-management" efforts between Indian bands and government should be merged with the "co-management" efforts between the government and the commercial and sportfisheries. Continuing separate, ongoing processes negates the efforts of both as social conflict is accentuated.
- 8. The intra-national planning forums of the Canada/U.S. treaty appear to have produced positive biological, economic, and social results, and offer good areas for research to attempt to isolate planning principles that might prove highly relevant to domestic fisheries planning.

GLOSSARY

Aquaculture: This term includes salmon farming (closed system, or intensive aquaculture), and ocean ranching in all its forms (open system, or extensive aquaculture). Aquaculture, in its broadest definition, is any operation where one or more manipulations occur before the eventual capture of a particular aquatic organism. Most aquaculture sees the rearing of organisms under controlled conditions, using techniques of animal husbandry; "mariculture" is simply aquaculture carried on in sea water only.

Area licensing: A regulatory scheme to divide the B.C. coast into 3 or more areas, in which fishboat licenses would be licensed to fish, and thus restricted from their present coast-wide access.

Band by-law fisheries: Indian fisheries, as authorized under the <u>Indian Act</u>, and enacted by Indian band councils. Final approval remains under the discretionary authority of both the Minister of Indian Affairs and the Minister of Fisheries.

Cannery licenses: Historic fishboat licenses that were specifically attached to canneries' licenses, but later phased out, as a concept, by government.

CEDC: The Community Economic Development Projects of the SEP: Some 30 fisheries resource development projects of the Salmonid Enhancement Program directed toward community-based resource development.

CFIC: Commercial Fisheries Industry Council, initiated by private sector interests in the commercial fishing industry in 1987, as an advisory board to the Minister of Fisheries.

Co-management: A concept developed in John Fraser's period as Fisheries Minister. It has different meanings to different groups: a) to Indian bands, a co-operative fisheries management process involving their band and the Federal Government, b) to commercial and sports fishermen, a co-operative fisheries management process involving the common property user groups and representatives of the Federal Government.

Commercial salmon fishermen: a) the partial or whole owner of one or more of 4577 "A", "A-I", or "N" licenses attached to a specific fishing vessel (537 seiners, 2058 gillnetters, and 1983 trollers in 1984); b) a Canadian citizen who purchases a personal commercial fishing license, and fishes as a skipper or crewman aboard an "A", "A-I", or "N" licensed vessel.

DFO: Department of Fisheries and Oceans, the Federal government agency that adminsters and regulates most aspects of the B.C. salmon fisheries.

Drag seine licenses: Historic exclusive area-based annual licenses issued to harvesters (mostly canners) from 1877-1967. Sometimes called "cannery licences".

Existing Aboriginal Rights of Fishing: a) in social terms, historical/cultural traditions of fishing at specific geographic locations, by local Indian people; b) in legal terms, the existing right of Indians to fish for food, ceremonial and societal purposes. The legal definition arises from the inclusion of existing aboriginal rights in the <u>Constitution Act</u> of 1982.

Fishboat fisheries: Industrial fisheries vessels using seine, troll, and gillnet gears which have Federally issued "A", "A-I", or "N" licenses.

Fishery: A harvesting activity in which a particular "user group" fishes by means of a "gear type".

Gear: A particular technology applied as a method to catch salmon. "Commercial" gear types are gillnet, (entangle the fish) seine ("purse" seine the fish) or "troll" (capture by hook and line). Sportfisheries use hook and line (rod and reel) and Indian food fisheries can use all of the above or traditional forms such as dipnet, and spear.

Indian Food Fishery: Indian fisheries stemming from 1888 Federal legislation, which enabled status Indians to obtain permits to fish only for their own use. It is continued to the present day with annual personal or (beginning in 1977) band permits. The main gear type used today in the Indian fishery is probably the landanchored nylon gillnet. Other methods used are the traditional dipnet and spear, the gaff, and the commercial "fishboat" gears of gillnet, seine, or troll applied from an Indian operated "A", "A-I", or "N" licensed vessel that obtains a food fishing permit and goes fishing expressly for food fish. The fishboat catches are often openly distributed in Indian villages.

MAC: (Department of Fisheries and Oceans) Minister's Advisory Council. Begun by Fisheries Minister Romeo LeBlanc in 1980 and dissolved by Fisheries Minister Tom Siddon in 1986.

Mariculture leases: A term defined by Commissioner Pearse to include: a) ocean ranching operations based on the development of natural stocks spawning in a leased area, as well as producing fish by approved artificial techniques, b) closed system salmon farming.

Ocean ranching: As framed by: a) Commissioner Pearse, the hatchery rearing and release of salmon that are subsequently harvested by the hatchery owner on their return from the wild and by the present sport, commercial, and Indian fisheries, b) the UFAWU, corporate-owned hatchery release and recapture, c) Jack Davis, public sector hatchery release, to be harvested by quota by both fishboat fishermen and the private sector annually bidding leasees, d) the Regional Aquaculture Association, non-profit area-based fishermen-run hatcheries, and e) by some management biologists as government run hatcheries.

PARC: Pacific Area Regional Council, begun by Fisheries Minister Tom Siddon in 1986: an advisory body to the Minister of Fisheries designed to include all "user" groups.

Processor: In 1985, one of 105 Provincially licensed salmon processors who purchase salmon from "A" license owners, or who catch salmon with their own "A" license vessels. (16 Of these processors are licensed to can salmon).

Salmon farming: Closed system (intensive) pen-rearing of salmon in the sea, involving no release to the wild of the salmon (a form of "cradle to grave" aquaculture: not "mariculture" as their is a fresh water hatchery stage involved).

Salmon traps: An early "gear" type phased out by government.

SEP: Salmonid Enhancement Program, an ongoing federal/provincial fisheries resource development program intitiated in 1977. Includes hatcheries as well as small-scale propagation techniques, and lake fertilization.

SEP quasi-ranching: Commercialization of the activities of the CEDP (Community Economic Development Program) of the SEP as defined by the Native Brotherhood of B.C. in their brief to the Pearse Commission. This was first authorized at Qualicum by Fisheries Minister Pierre DeBane in 1983, and was a major factor in triggering the formation of the Fisherman's Survival Coalition lobby group, and, eventually, the Pacific Fishermen's Defence Alliance.

Sportfishermen: Any individual (from any country) who purchases a B.C. saltwater sportfishing license, and hence is entitled to fish for and catch salmon according to the Federal fisheries regulations (about 400,000 people bought such licenses in 1985).

Status Indian: A person registered under the <u>Indian Act</u> as being a member of a specified band.

Stock: Fish (salmon in this case) which spawn in a particular stream, river, or lake, at a particular season, and which to a substantial degree do not interbreed with any group spawning in a particular place, or in the same place at a different season.

TURFs: Rights of use and exclusion (to fisheries resources) defined over a given territory and held by a community or collectivity with socially integrating forces...and within a specific area and for a period of time.

UFAWU: The United Fishermen's and Allied Workers Union, the largest trade union organization within the B.C. salmon fisheries.

User (harvester) groups: Sport, commercial, and Indian are the main groups.

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APPENDIX I

Native Brotherhood of British Columbia.

Quote #1 First brief on traditional Indian resource ownership.

"Kinship groups considered themselves exclusive owners of waters and tracts of land upon which they collected their food." (Exhibit #141, p.48)

Quote #2 First brief on native Participation in economic development and resource planning.

"We recognize the need to adjust and reconstruct our culture and society would require a blending of the best of both worlds. The Indian people have always expressed the desire for economic stability and economic self-determination. In economic development terms Indian people desire more meaningful participation in defining program objectives and directions. Indian people want to be involved in managing and sharing in the benefits of all fisheries and marine resources, including resource restoration projects." (Ibid.,p.49)

"Achievement of economic self-determination by Indian coastal communities is seen by Indian people as the ultimate objective to ensure their economic, social and cultural well-being. Community based economic development objectives are:

- 1. to promote self-reliance at the community level by capturing the maximum economic benefits available from the traditional resource base;
- 2. to maintain levels of investments in physical support systems necessary to sustain economic growth (Ibid., p.26)

Quote #3 First brief on the Community Economic Development Program of the Salmonid Enhancement Program.

"Presently nine coastal Indian communities have been contracted by the Department of Fisheries and Oceans in the Salmonid Enhancement Program, focusing on salmon production. Interest in CEDP projects has been received from more than 100 Indian bands and communities....several Indian communities have expressed an interest in exploring markets for traditional exotic foods. Familiarity with the environment and knowledge of the customs is half the expertise required." (Ibid., p.51)

Quote #4 First brief on the concept of area licensing.

"The Native Brotherhood has concluded that the concept of licensing vessels by area is not yet a sufficiently proven method of ensuring a fair division of catch....Area licencing for salmon will have to be examined in detail before any schemes are implemented. The proposed Pacific Regional Fisheries Council would obviously play a leading role in the development of the concept, if it is found to be acceptable." (Ibid.,p.41)

...we argue for the implementation of a Community Economic Development Program. Such a program would to a large degree be dependent upon local resources. Within this context the concept of area fishing would appear to have much merit." (Ibid., p. 80)

Quote #5 First brief on the concept of TURFs as proposed by the B.C. Development Corporation and Jack Davis.

"Two briefs in particular have put forward specific detailed proposals: 1. the B.C. Development Corp., and 2. the Hon. Jack Davis. Both these briefs argue for some form of what can be called "ocean ranching" but that is not the real issue. The real issue is who has control of the fisheries and who receives the benefits. Rather than dealing with the specifics of each brief the Native Brotherhood had adopted the following policy on each issue:

1. Control of the Fisheries

The Native Brotherhood is opposed to any form of Provincial control of the fisheries because they would become secondary to the interests of forestry, mining and hydro projects. The province of B.C. has not demonstrated any competence to manage the fisheries and any conflict use would see the fisheries taking second place. The Native Brotherhood wants federal control of the fisheries but in a new and effective context whereby the management of the fisheries has the input of the people for whom the resource is crucial to their economic and cultural well-being. Elsewhere in this brief we outline how management of the fisheries would take place through the Pacific Region Fisheries Council. Control of the fisheries and the Council.

2. Distribution of the Benefits from the Fisheries

The fundamental flaw with proposals such as that of the B.C. Development Corporation on "ocean ranching" is that by using the arguments of "efficiency" they substitute one supposed evil for a real one. The present inefficiencies of fishing may exist but eliminating fishermen and substituting Crown Corporations takes the benefits away from fishermen and gives them to bureaucrats with no guarantee that there is more efficiency. The Native Brotherhood feels that the issue of benefits is a crucial one. Not only is the Indian food fishery at stake here but the Indian claims with respect to land and marine resources is essentially about the distribution of benefits. For these reasons the Native Brotherhood is opposed to any proposals that seek to create a new class of beneficiaries without addressing the issue of ensuring that the Indian people have their rightful claims recognized and given. (Ibid., p.86)

Quote #6 First brief on the Band By-law issue.

"The Native Brotherhood stands firm in their demand that the Department of Fisheries and Oceans discontinue their actions to undermine the legal rights of Indian Bands, and that Indian By-laws continue to take precedence over the Fisheries Act until such time that Indian people participate in Fisheries policy-making and management and until such time the Department of Fisheries and Oceans recognizes and respects Aboriginal rights." (Ibid.,p.19)

Quote #7 Second brief on the "New Approach"

The second submission by the Brotherhood was put to the Commission some nine months after the first, and included a very significant change in outlook regarding the TURF issue:

"Essentially what is proposed in this submission is a new approach to the management structure and operating practices of the fishery. These proposals at first glance may seem radical, but really what is being proposed is innovation around and more flexibility of existing policies, to stable and long term growth of remote communities populated, primarily, by native Indians." (Exhibit #198, p.1)

"The underlying philosophy behind the proposed approach to self-sustaining operation is that the rights to the enhanced resource must, to some degree, be alienated and assigned to the CED (Community Economic Development) program sponsors. Complete, (i.e. 100%) ownership is not necessarily required. What is required is allocation of the total production of the program in such a manner that the Program can be self-financing and therefore self-sustaining; that it can generate sufficient revenues to operate, in perpetuity, without the need for continuous injections of government funds.

What is proposed by this idea is a form of ocean ranching. The Native Brotherhood is aware that ocean ranching has come under severe criticism from many industry groups, as well as from the DFO. There appears to be two criticisms.

The first is that ocean ranching is environmentally and biologically dangerous. The experience in Washington and Oregon States, where private corporations are permitted to operate their own facilities, suggests that ocean ranching can result in disease transfer, and in some cases eradication of natural stocks. However, the approach proposed here assumes that DFO will still have authority for the biological control of CED projects; this responsibility will not be left in the hands of private parties.

The second criticism is that the fishery is a common property resource, and that any form of allocation of production from enhancement facilities would constitute an assignment of property rights to the project sponsors. However, the Brotherhood believes that there are precedents for this concept currently being practiced by DFO, viz, area licensing and catch allocation in the herring fishery. This system effectively gives seine and gillnet herring fishermen exclusive rights to the resource in one of three coastal areas.

The implementation of a form of ocean ranching is a significant department from present SEP management policies, and clearly there are issues and problems to be worked out before a feasible system can be implemented." (Ibid.,p.24)

Quote #8 Second brief on success and development of the Community Economic Development Program of the Salmonid Enhancement Program.

"Four projects under the experimental Native People Pilot Program were implemented initially, and their performance was monitored over the following year. While they were of mixed success, the general consensus of all parties, the Departments of Fisheries and Oceans, Indian Affairs, Manpower and Immigration and the Indian bands themselves, was that the projects were beneficial, and that the Pilot Program should definitely be continued and expanded to include other native and nonnative communities that had expressed interest in sponsoring projects of their own.

Accordingly, the pilot program was formalized into the Community Economic Development Program. At present, there are 15 projects operating, of which 9 are sponsored wholly or in part by Indian bands.

The CED Program has now been operating for some four years. A recent evaluation (Rank, 1981) found that the program was meeting most of its primary objectives, and that interest among existing participants remains enthusiastic. It must be noted,

however, that problems of one kind or another have taken place on most projects. These problems have usually been with funding, administration and control, and have been of major concern and caused important operational problems at different times. At present, over 100 other communities have expressed strong interest in initiating projects of their own.

It has now become apparent to the Department of Fisheries and Oceans, Department of Indian Affairs, Indian band sponsors and the Native Brotherhood of B.C. that the program needs substantial restructuring in respect to administration, budget allocation project selection and delivery, program scale, and financial arrangements. (Ibid.,p.18)

Quote #9 First brief on the concept of TURFs as separated from "traditional commercial fishing".

"What has been lacking is a comprehensive long-term plan that specifies particular goals in detail (such as "rising income" or "lower unemployment"). Particular models for achieving specified goals have not been outlined or developed." Ibid.,p.2)

"The first activity that is discussed is Indian involvement in commercial fishing, the traditional area of native participation. The second activity that is discussed is Indian involvement in salmonid enhancement, specifically in the Community Economic Development component of the program. This is the most recent area of involvement of Indians in the fisheries, and the one that potentially holds much promise for increasing the economic viability and overall quality of life in remote communities." (Ibid., p.3)

Quote #10 Second brief on perceived structures of social control in the proposed TURFs.

"Discussion to date has focussed on not only the structure and responsibilities of the Committee, but also on whether the Committee should have an advisory capacity or whether it should have the power to direct certain functions of the program and be, in effect, an Approvals Committee. The position of the government is that, because of the biological and environmental sensitivity of salmonid enhancement, and the experimental nature of some of the techniques, DFO must have the final authority for project design and implementation. Native representatives, on the other hand, feel that without the authority to approve and control, the Committee can be no more than a rubberstamp body; a Committee without substance.

The Native Brotherhood supports the position of the Indian bands, and believes that the Committee must have authority to approve, not simply advise. (The Native Brotherhood is of the opinion that, ultimately a Development Corporation should be formed that will oversee CEDP operations, and operate the program as a bonafide profit making business.) But the Brotherhood recognizes that the DFO is not likely to relinquish all control over the program immediately, and agrees that it should not. Instead, a phased approach should be adopted that will allow the Committee to assume gradually more authority and responsibility for the program. Initially, the powers of the Committee would be limited to those that are mutually acceptable to both DFO and the Indian bands, for instance, approval for project selection and scale. As the Committee gains familiarity with and experience in the program, then its powers can be broadened to include the more sensitive or controversial areas of responsibility, such as species production, choice, and funding.

In the sections that follow in this chapter it is implicitly assumed that there will be an Approvals Committee struck that will have authority over the administration of the CED Program, and that ultimately the Program will evolve into a Development Corporation." (Ibid.,p.19-21)

Quote #11 Second brief on Native corporate structure for TURFS.

"...I would think eventually you would have to look at the corporate structure for it to work effectively and efficiently, dealing with costs, and dealing with what the criteria of those enhancement projects are, basically as to rehabilitate the stocks and to create employment, and to lessen the social stress at the community level." (Pro.,p.14247)

However, the corporate structure that the Brotherhood has in mind does not appear to be the same as that familiar to Commissioner Pearse:

- Q: Okay. To put this plan into effect -- I'm speaking now about the arrangements for self-financing enhancement projects...to put into effect, we'll need a new licensing system. We'll need a licensing system that would provide the contractors, in this case Indian Bands is what you're specifically concerned about, to provide them with a licence of some sort to develop the enhancement opportunities over certain streams, according to some sort of approved plan, and to harvest the fish, some of the fish.
- A: Well, maybe a contract could do the same effect.

Q: Sure, a contract or a licence.

- A: But where licensing tends -- when you go to licensing, you're dealing with a different kettle of fish altogether. All of a sudden you find licenses are worth more than the project itself, and we want to get away from that kind of stuff. We want to go deal with the actual fish itself, the actual catch of those fish, the actual price we receive. We gave a bit of problem with licensing as such.
- Q: Well you --
- A: It hasn't really proven that beneficial in the past.
- Mr. Campbell: I think it's a semantic problem. The license can be just like any other agreement.

Commissioner Pearse: Technically, is a license a contract, Mr. Campbell?

Mr. Campbell: It can be.

Commissioner Pearse: A qualified answer.

Q: Right, let's call it a contract. It's less -- it conjures up less concern about transferability and all that sort of thing, but it seems to me that we're talking about licenses here that can be transferred in any event. We're talking about a licence that would apply to a prescribed parcel of coastline --

A: Well --

- Q: -- and that it would be attached to a particular plan for developing the fish production opportunities of these particular streams. There's no question of moving it somewhere else?
- A: Well, something along the line, and I think we are probably saying the same thing, a licence of no value..;" (Pro.,p.14252)

Quote #12 First brief on business efficiency of the new TURFs concept.

"With respect to CEDP project sponsors, the major implication is that now they will have a steady cash flow, and will be able to plan their year to year operating plan in a more certain financial environment. The system will allow them more flexibility in budgeting. Secondly, the sponsors will be able to maximize their revenues and possibly their local employment through researching alternative ways of harvesting and, perhaps over time and at certain locations, engage in other activities such as fish processing. Thus, there could well be spin-off benefits resulting from this approach. Thirdly, the sponsors will have more control over the administration of their projects, and increases in community satisfaction may result. Thus, one can expect that the impacts of this management approach on project sponsors and their communities would be very positive indeed." (Exhibit #198, p.30)

Quote #13 First brief on the social impact of TURFs to all resource users.

On the question of the possible displacement of other participants in the fisheries, should this policy option be implemented, the Brotherhood foresaw a "win-win" situation:

"It is recognized that there will be both short and long term impacts on other resource users. In the short term (i.e. 1 or 2 years) the amount of fish available for harvest in the commercial and sport fisheries might fall slightly, as a certain percentage (about 30%) of CEDP enhanced stocks will be assigned to the program sponsors in order to generate revenues to enable self-financing operation. However, in the long term, the Native Brotherhood believes that increased salmon stocks because of successful enhancement (including the CEDP), coupled with the implementation of proposed fleet rationalization measures (buyback, etc.), will certainly increase the quantity of salmon available for harvest in the commercial and sport fisheries. In the long term, all resource users will benefit." (Exhibit #141, p.31)

"...the project might find that with some proper management plans, and the proper planning, that they could hire some commercial vessels to catch quality stock that could go towards the cost of those enhanced projects..."(Pro., p.14267)

"....by investing this way, there are benefits to be derived that the government will receive, either indirectly or directly, and what I mean there is less social welfare payments, better upgrading of our native communities... (Pro.,p.14257)

Ouote #14 Second brief on fish price negotiations and the concept of TURFs.

Earlier in the Commissions" hearings, Mr. J. Rivard explained that the Brotherhood had long acted as a Union, negotiating with "the Fisheries' Association with regard to betterment in their wage price and benefits." (Pro. p. 8913) Where then is the subject of fish price negotiation within the context of this "new approach"? References to this Union function almost disappear, and other comments make it rather clear that negotiations over fish prices are no longer necessary. It appears that the brotherhood is assuming the existence of a "perfect market" situation:

"Most of the usual approaches to dealing with the economic problems of the fishery focus on such variables as landed value or total value added. The "net income" approach, however, focusses upon the individual fishermen, his financial well-being, and through this his potential contribution to the community." (Exhibit #198, p.7)

PRICE:- The price of fish is negotiated between the fish processors and the Native Brotherhood. The only available way to get a premium on top of the negotiated price of fish, in absence of heavy price competition, is to somehow ensure higher quality than the average....

....As well, processors are not always prepared to pay a premium, as pricing depends upon market demand and the existing supply." (Ibid., p.9)

"A quota system that guarantees a certain share of fish to the native Indians is a proposal that will continue to surface and should be addressed. There are no real barriers to such a system other than political ones. Such a quota in conjunction with prices support or guarantees would do much to provide a reasonably consistent predetermined level of gross fishing income." (Ibid.,p.10)

"It would appear that the most readily identifiable way of linking the two activities is by the implementation of terminal fishing. A move to terminal fishing (and ultimately to area licensing) would give Indian vessel owners operating out of a given native community, a more stable supply of fish and therefore a more stable source of income." (Ibid.,p.34)

Quote #15 Commissioner's reaction to second brief.

It is interesting to note the attitude of Commissioner Pearse to this brief:

"You've done exactly what I had hoped you would do in terms of building on your earlier submissions, and indeed, on some of the ideas that other people have made to the Commission, and on some of the ideas that are embodied in this Commission's Preliminary Report, in order to concentrate on solutions to some of our pressing problems in the fisheries.

You've referred to your proposals in this brief as a new approach, and I must say that it is an imaginative new approach, in terms of turning the emphasis on managing the commercial fisheries to the crucial issue of income and employment stability, switching the emphasis from just harvesting fish to actually producing fish, and addressing the question of community development in terms of self – reliant program of fisheries development, and linking both harvesting and production." (Pro. p.14226)

"It's an extremely provocative and stimulating presentation....I can assure you that we will be thinking a great deal about the proposals that you have made to the Commission, as we approach the writing of the final report." (Pro.,p.14325).

Quote #16 Brief #2 on the "phased approach" to the introduction of the TURF concept.

This brief recognises the degree to which this "new approach" differs from the present system, and advocates gradual change:

"The Brotherhood recognizes that changes in the existing management regime will have major implications on the present structure and operations of the fleet and because of this its membership is somewhat divided on the issue. It is recognized that a move towards terminal fishing could very well put the more mobile vessels at a relative disadvantage, as they would not longer have the opportunity of engaging in interception fisheries and may not have the capability of participating in terminal ones. But the Native Brotherhood believes that these possibly adverse distributional impacts would not be permanent, as given a rationalized salmon fleet, and more stocks through enhancement, there would eventually be more fish for the remaining fishermen. For this reason, the Native Brotherhood is willing to support the terminal fisheries concept, provided that it succeeds in contributing to selffinancing CED Program operation.

It may be prudent to adopt a phased approach to this type of management. The Native Brotherhood proposes that the movement towards self-sustaining operation for CEDP projects should be done gradually. Perhaps two or three pilot projects should be undertaken, the results monitored, and used in re-formulating operating procedures for expanding the management regime into other areas." (Exhibit #198, p.26)

Quote #17 Brotherhood Convention resolutions relating to the concept of TURFs.

At the 52nd annual convention of the Native Brotherhood that was held in Skidegate (a Haida village) in November, 1982, their was an obvious division over the issue, for two somewhat contradictory resolutions were passed:

Resolution #16: Council of the Haida Nations

"WHEREAS ocean ranching is a development which has negative potential for commercial salmon fisheries of troll and net fleets, and native food fisheries:

"THEREFORE BE IT RESOLVED that an investigation of ocean ranching be undertaken by the Native Brotherhood of British Columbia to determine feasibility of developing this concept in a manner which observes and respects time honored commercial salmon fisheries and support mechanisms and native food fisheries."

"WHEREAS the Chehalis Indian Band has been contracting with Department of Fisheries and Oceans since 1977 as a means of enhancing stocks of salmon in the Chehalis and Harrison River areas,...

THEREFORE BE IT RESOLVED that the Native Brotherhood of British Columbia support the Chehalis Band in their endeavours to take over and run the Chehalis River Hatchery in the Harrison area on a Pilot Project Basis as a means of establishing an economic base for the Chehalis Indian Band."

Workshop Conclusions

B. Mariculture and Ocean Ranching

"Further studies are needed to identify opportunities in mariculture for Indian people. (A Task Force is already in place for this)

It is up to Tribal Councils and Bands to decide how to proceed in this area."

At the 52nd Annual Convention of the Native Brotherhood held in Port Alberni in November, 1983, strong support was expressed for the by then much-criticized Qualicum Band pilot project:

WHEREAS the Qualicum Band of Indians has entered into an agreement with the Department of Fisheries and Oceans to harvest salmon stocks from the Big Qualicum river for Native food and commercial purposes, and,

WHEREAS the band's right to an economic foundation based on the traditional resource of the Qualicum people has been recognized by federal authorities,

THEREFORE BE IT RESOLVED that the Native Brotherhood of B.C. support the Qualicum Band in this endeavour, and

BE IT FURTHER RESOLVED that this opportunity be extended to all other Indian Bands in British Columbia who

BE IT FURTHER RESOLVED

wish to participate, and

that these agreements entered into with the Department of Fisheries and Oceans on allocations of fish, be without prejudice to the future definition of Aboriginal Rights and Land Claims.

Quote #18 The Native Brotherhood abstains from voting on ocean ranching in the Minister's Advisory Council.

Motion 17

Moved by:	Fred Penland
Seconded by:	P. Greene

THAT ocean ranching in B.C. coastal waters should only be undertaken by the Salmonid Enhancement Program.

DISCUSSION ON MOTION #17

Cook

There should be a motion to the effect that local people should be able to get permits to harvest surplus enhanced stocks.

Lenic

Understands that the Nimpkish Band would like to harvest surplus stocks, after the commercial fisheries has access.

Rivard

Clarification.

Because of the problem with unreliable SEP funding, some CEDP enhancement projects would like to receive enough stock to pay for administration of their projects. They are afraid ocean ranching will end up in private hands.

Cook

The Nimpkish Band is trying to restore levels of sockeye and chums through SEP. After the commercial, sports and Indian fishery has fished the run, the BAND could harvest the excess and everybody would benefit.

Lenic

By supporting the motion, would we be cutting out the project?

Rivard/Cook

N. The project, CEDP, is under the Salmonid Enhancement Program.

Newman

Opposed to ocean ranching because it is designed to do away with ocean fishing.

(MOTION #17 WAS RE-READ)

Forand

We should not link ocean ranching and SEP together.

Dalum

Agrees. Ocean ranching implies private ownership of the resource, with exclusive rights to harvest, profit-oriented.

Nichol

The motion is vague and doesn't ease the concern of ocean ranching, which can have potentially dangerous effects on wild stock. The commercial fishery won't benefit because it will be shut down to allow for increased escapement.

Jones

Motion leaves door open for entrepreneurs to get involved in CEDP. As we have enough problems in the fishery, we should oppose ocean ranching at this time.

Rivard

Don't agree with privatization of ocean ranching because licenses/leases could become a commodity. However, under SEP, CEDP projects could contract to harvest stock to pay for administrative costs--a mechanism is in place.

Penland

We should add to the motion "that all stocks surplus to spawning requirements be harvested by current users.

Greene

And by traditional methods.

MOTION #18

Moved by:	W. Peterson
Seconded by:	C. Cook

THAT Motion #17 be withdrawn

Carried

Dalum

We should develop a method of drafting resolutions.

MOTION #19

Moved by:	F.	Penland
Seconded by:	Ρ.	Greene

THAT ocean ranching in B.C. coastal waters only be undertaken by SEP and that all stocks surplus to spawning requirements be harvested by current users and that any surplus to spawning requirements be harvested by current users and that any surplus at the facility be harvested by the commercial, sports and native food fishery.

DISCUSSION ON MOTION #19

Wickham

Motion gives SEP ultimate authority, but the critical issue is "no privatization on harvesting" enhanced stock.

Cook

We are here to deal with Pearse Report. Do we believe that ocean ranching and mariculture are married. Pearse opens the door for large mariculture corporations.

Newman

Cannot support ocean ranching. We should find alternatives to what we don't like in

Pearse...

MOTION #25

Moved by: J. Nichol Seconded by: W. Peterson

THAT because ocean ranching has the connotation of exclusive right of harvest, the MAC oppose it.

Carried

(1 abstention - E. Newman) (Minutes of the MAC Council, Jan., 1983)

Quote #19 Brotherhood on conflict between coastal and inland Native interests.

4. Indian Fishery

Edwin Newman

The reason I abstained from the last motion on ocean ranching is that I have to answer to commercial fishing and Indian Bands. Indians are always going to talk about land claims. I have to get directions. The Native Brotherhood of British Columbia is a member of the Aboriginal Council of B.C. and they want Coastal People to get together to talk about Pearse. Funding is being sought from DIA to do this. When Coastal Indians talk about food fishing they include all resources of the sea. Interior Indian food is salmon, thereby creating a split. So we have to be careful what we agree to. Some bands have bylaws that gives them total control of what goes through their Reserve, which we can't contradict. Indian people also want total control and manage their own SEP, mariculture, etc.

As a commercial fisherman, I agree to commercial fishery. We want our Indian commercial licenses protected, in one year, 49 licenses were sold, gone forever. We are fighting for our survival and are way back in the commercial fisheries. So I can't support things designed to push Indian people out of the industry. A lot of our members are opposed to ocean ranching so I speak out against it. Some of our members support area licensing, others don't....(Minutes of the MAC Council, Jan, 5, 1983, P.1-15)

Quote # 20 Minister of Fisheries Pierre De Bane's Rationale for Native Allocations

"...Among those different users there is no doubt in my mind that the first citizens of this country have a special situation. Not only because of the federal government's particular responsibility as the trustee for the native people of this country, but also because fishing and hunting go together with the Indian and the Inuit like marriage goes with love. It is so part of their cultural history. Thirdly, they are among the neediest Canadians.

So everything hinges on the first point. If they are willing to recognize the paramount responsibility of the department for conservation and management, then I would like to develop for them and with them a policy where they will be more involved in its management, and will give them a larger share, not only for their food, which is a right, but also for economic development." (interview with Fisheries and Oceans Minister Pierre De Bane by Canadian Fishing Report, April, 1983)

"The governments of Canada of Canada and the ten Provinces have recognized the concept of "existing aboriginal rights" for Indians, Metis, and Inuit. While this is a

major achievement, as all of you will know, the great challenge before us is determining how "existing aboriginal rights" will be interpreted and applied. The process of interpretation and application will, I believe, unfold gradually over a number of years, through negotiation, through legal interpretation, and through practice....

I am interested in the possibility of using the fish resource as a springboard to Indian economic development. I realize that the major vehicle for achieving this will be the land claims process. However, their are additional means within my responsibility of affecting the welfare of Native groups, and I intend to utilize them. I recognize though that these two approaches must be closely coordinated.in 1983, I authorized the sale of excess hatchery fish by two bands - Sliammon and Qualicum on an experimental basis. The proceeds will be reinvested directly by the bands in conservation and enhancement projects....If the pilot projects meet expectations, I want to see the application of this concept expanded in 1984. (An Address by the Honourable Pierre De Bane-Minister of Fisheries and Oceans to the 53rd Annual Convention of the Native Brotherhood of B.C. in Port Alberni, Nov., 1983)

Quote #21 Press release of the newly-formed Aboriginal Council of British Columbia.

"At a two day conference held 26th and 27th May 1983 in Vancouver, B.C., delegates from 17 Tribal Councils (representing 141 Indian Bands from the Coast and Inland Native fishery) met and discussed Chapter 14, "The Indian Fishery", of the Pearse Commission Final Report...A six-person Working Committee was established.... This committee will be charged with the responsibility for drafting documents for discussion by Tribal Councils, dealing with points of agreement and disagreement between Coast and Inland Native fishery, developing structures and authorities for Native fishery Boards on water-shed management and the relationship of those Boards with the Federal Government." (Press Release, Aboriginal Council of British Columbia, May 31, 1983)

Quote #22 Native Brotherhood on the sale of fish by the Qualicum Band,

"Qualicum fish sale justified says Brotherhood,"

"By selling surplus hatchery fish, the Qualicum Indian Band is simply asserting its right as a native community to harvest the fisheries resource...

Fisheries is central to Native culture and commerce. More importantly, it is fundamental to our culture's economic survival and while everyone has been quick to recognize aboriginal rights as a motherhood issue, they are tardy in dealing with specifics. The fact remains that those rights, including the right to an economic foundation based on traditional resources, are legitimate and they won't go away.

The United Fishermen and Allied Workers Union, meanwhile, has expressed indignation over the agreement and has called for an immediate halt to the Qualicum Band's harvest. Historically the UFAWU and the NBBC have been allies. But now, said Newman, the Union is spouting empty words and has broken faith with the long tradition of mutual support between our organizations." (The Native Voice, Dec., 1983)

Native Brotherhood of B.C. Perspectives.

The following statements sum up the perspectives of the Native Brotherhood in regard to TURFs.

TURFs were a part of the traditional social systems of Native peoples. (Quote #1)

Community-based economic planning and self-reliance at the community level are desired objectives as Native people seek to blend the traditional with the modern as they reconstruct their society. (Quote #2)

The Community Economic Development Program (CEDP), of the Salmonid Enhancement Program has been received with enthusiasm by many Native communities, some of which have expressed an interest "in exploring markets for traditional exotic foods." (Quote #4)

The CEDP form of TURF, dependent upon local resources, would appear to fit in well with policy developments in the fishing industry such as area licensing. These and other policies could be developed under the guidance of new a new advisory body, the Pacific Regional Fisheries Council. (Quote #4)

The Province of British Columbia has not shown responsibility or competence in natural resource management, and proposals advocating Provincially-controlled TURFs therefore imply placing the interests of conflicting industries such as forestry and mining ahead of the fisheries. (Quote #4)

Indian food fisheries and Indian claims to marine resources would be placed in jeopardy by B.C. Provincial control of fisheries resources (by means of Crown Corporations). (Quote #4)

Indian Band by-laws should continue to take precedence over the Fisheries Act until Indian people participate in policy-making and management, and the DFO recognizes Aboriginal Rights. (Quote #6,19)

The "new approach" (that the Native Brotherhood takes) to the CEDP of SEP is a form of "ocean ranching", requiring allocation of the total production of the program. (Quote #7)

The "new approach" to the CEDP of SEP will involve innovation and flexibility of already existing policies relating to remote Native communities. (Quote #7,10)

Most of the problems encountered by the CEDP of SEP to date have involved funding, administration and control. (Quote #8)

The major implication of the "new approach" to the CEDP of SEP is that the projects would now have a steady cash flow. (Quote #12)

Although 100% ownership by Native Bands of CEDP is not necessary (in the "new approach") the rights to the enhanced resource must, to some degree, be alienated and assigned to the CEDP so that it can be self-sustaining. (Quote #7)

The "new approach" to the CEDP of SEP assumes that the DFO will retain biological control of CED projects. (Quote #7)

The "new approach" to CEDP of SEP holds much promise for increasing the economic viability and overall quality of life in remote communities. (Quote #9)

Under the "new approach" to the CEDP of SEP, Native representatives must have the authority to approve and control, while the DFO retains the final authority for project design and implementation. (Quote #10)

Under the "new approach" to the CEDP of SEP, the greater control of the administration of the projects would lead to greater community satisfaction and positive impacts upon project sponsors and their communities. (Quote #12)

Under the "new approach" to the CEDP of SEP, a Development Corporation would eventually be formed that would oversee CEDP operations and operate the Program as a bonafide profit making business. These corporate structures would be needed for the development of really effective and efficient projects. (Quote #10,11)

A phased approach is necessary for the "new approach" to the CEDP of SEP. This relates to pilot project development, gradual program restructuring, implementation of fleet rationalization measures, and increasing control by Indian the individual Bands. (Quote #8,13,10,16)

The "new approach" to the CEDP of SEP includes the concept of "a license of no value" provided to Indian band contractors to develop enhancement opportunities. (Quote #11)

Maximization of revenues and local employment from "new approach" developments might include the development of fish processing facilities. (Quote #12)

In the short term the implementation of the "new approach" may lead to slightly less fish for the sport and commercial fleets. But in the long run fleet rationalization coupled with the increases expected from these enhanced salmon stocks will benefit all resource users. (Quote #13,16,18)

Commercial fishing vessels owned by people from coastal communities who obtained permits, or other vessels that were hired, could be used to harvest quality stock. (Quote #13,14,18)

Maximization of revenues from "new approach" developments could be obtained through the development of alternative methods of harvesting. (Quote #12)

The criteria for these "new approach" projects would be to rehabilitate the stocks, create employment, and reduce stress at the community level. (Quote #11)

Investment in these projects would lead to benefits to the government in the form of reduced social welfare payments, and upgrading of Native communities. (Quote #13)

The move to terminal fishing (as a component of the "new approach") would put the more mobile vessels at a relative disadvantage, until they adapted to the new system. (Quote #16)

As the development of ocean ranching could have a negative effect upon troll and net commercial fisheries, as well as upon Native food fisheries, an investigation should be undertaken to determine if it (ocean ranching) can be developed in an acceptable manner. (Quote #17)

Ocean ranching (as proposed by Pearse) is designed to do away with ocean fishing. (Quote #18)

Ocean ranching (as proposed by Pearse) opens the door for large mariculture corporations. (Quote #18)

Privatization of ocean ranching (as proposed by Pearse) could lead to such leases becoming a commodity. (Quote #18)

Many Native Brotherhood commercial fishermen oppose ocean ranching and area licensing, but can't contradict the by-laws that give some bands total control. (Quote #19)

Individual bands (rather than the Native Brotherhood) should be left with the final decision to participate in "new approach" CEDP pilot projects. (Quote #17)

Band agreements involving allocations of fish should not prejudice future definition of Aboriginal Rights and Land Claims. (Quote #17)

The ocean ranching issue creates a split between coastal and interior Indians. (Quote #19)

Native Brotherhood Descriptive Material

Native_Brotherhood_Employment in Salmon Fishing.

Many summaries of the number of Native participants in the fisheries have been compiled. However, these figures are very confusing because:

- a) in all of the studies, only status Indian people (under the <u>Indian Act</u>) are included; thus many non-status but nevertheless very culturally-Indian people are not included.
- b) in most cases vessel owner-operator status and non-owner operator status are not differentiated.
- c) in many of the studies the number of vessels owned by Indians are simply grouped together, and thus the proportion of large-crew seine boat participation (particularly of rented vessels) by Native Indian people in the fishing fleet tends to be overlooked.

Consequently, over time studies have included a varying number of estimates of the number of Indian people who participate in the fishboat fisheries; although the number of Indian owned or operated boats are mentioned, few studies outline the total numbers of Indian people employed. The following assumptions relating to crew sizes are applied here: Seine (5) Gillnet (1.5) Troll (2.5) to the 1979 study of Gislason. (I also assume here that all crew members aboard Indian-operated vessels are Native.) It is important to note, also, that Native seine skippers are not excluded from the ranks of their organization because they are employers, an old rule of the U.F.A.W.U. In fact, Native seine boat owner-operators are among the most prominent members of the Brotherhood.

<u>S</u> I:	<u>eine</u> ndian	India Oper Indian	n ated Processor	<u>Gilln</u> Indian	<u>et</u> Indian	Indian Operated Processor
<u>Year</u> o	<u>perated</u>	owned	owned	operated	<u>owned</u>	<u>owned</u>
1976	<u>130</u>	<u>65</u>	<u>65</u>	<u>526</u>	<u>266</u>	<u>260</u>
Empl.	650	325	325	789	399	390
I I: <u>Year</u> o	<u>roll</u> ndian perated	Indian owned		Indian ope Processor <u>owned</u>	rated	
1976	159	157		2	·	
Empl.	397	392	-	5		

Gislason, (1979) (employment figures are my computations)

Therefore this report also specifies the level of Indian participation in the rental fleets of the processing companies, and concluded that although only 488 salmon boats were owned by natives (13% of the seines and 9% of the gillnetters) an additional 327 boats were owned by processing companies and operated by Indians.

What is significant here is that in applying our employment formula, the Indianowner employment total comes to only 1116, but another 720 Indian people are employed aboard processor-owned vessels. The total Indian employment picture aboard fishing vessels now comes to a total of 1836 people, about 17% of the salmon fishermen on the coast. If these figures are not factored in (as they often are not) then Indian employment figures are very misleading.

Very significant, then is the role of the fish processing companies in the lives of the Indian fishermen. Gislason notes that in 1977, the processing company-owned salmon fleets formed 24% of the total number of seiners, or 116 vessel, and 15% of the total number of gillnetters, or 439 vessels. Thus of the company-owning seiners, Indians operated 56% of the vessels, and of the company-owned gillnetters, Indians operated 59% of the vessels.

Native accounts of the history of Indian participation in the fishing fleet.

"In 1927, the Indian people made up a third of the fleet, and between there and the war years, declined to less than nine percent, I understand. So in the war years, when the Japanese were taken off the coast, the Indian people again made up a third of the fleet. The Indian fishermen were in demand again. But after the war, when the Japanese came back to the coast, again the fishing companies -- and we're talking about rental boats now -- the fishing companies took them boats away from the Indian people and gave them back to the Japanese, which put a lot of Indian people on the beach." (Pro.,p.8941)

"In 1930 Indians made up 33% and decreased from then on until World War 2, when Japanese were removed from the industry and Indians employed, again they made up 33% of the industry. After the war Indians were pushed out again and made up 9% of the industry--nobody said a word. IFAP (Indian Fishermens' Assistance Program) came into place in 1968 and brought the Indian's position to approximately 15%. IFAP was paid back by Indians through repayments, interest and taxes. The results of all this placed many Indians on welfare." (Minutes of the Minister's Advisory Council, Jan. 5, 1983)

Drucker on fishing vessel ownership or rental by Natives.

"He (the Indian) rapidly learned to master the new techniques, beginning with the earliest one of gillnetting from skiffs, and kept up with progress until today Indians competently handle large fishing craft, with diesel or gas powerplants, and all the complex equipment and gear that is used in modern commercial fishing.

In British Columbia it appears that white and Japanese fishermen did not enter the picture until around 1890, and then only on the Fraser and Skeena...Almost every sizable inlet into which one or more rivers empty, sooner or later came to be the site of a cannery. Competition was extremely keen between these plants. Those in more isolated places especially, competed quite sharply with each other for Indian fishermen and inside workers. A practice that grew up very early was for the canner to hire one or more "Indian bosses"...in many cases young chiefs were selected.

...Another pattern of relationship that developed rather early was the development of strong loyalty of the fishermen to his cannery...the fishermen who got cash advances or was given credit at the cannery store before the season was expected to fish for that cannery...it is noteworthy that many Indians have fished season after season for the same cannery...many of the cannery managers were and still are men of long experience on the coast, know the Indians quite well, and often prefer dealing with Indian fishermen. This is true even after the Japanese began to enter the industry in large numbers, around the turn of the century, they were sought by some cannerymen as being both more industrious fishermen, and more reliable, taking better care of boats and gear.

As newer and more efficient boats and gear came into use, a trend developed toward ownership of equipment by the fisherman rather than by the canner. However, as far as the Indian was concerned, he was under a tremendous handicap when it came to acquiring any substantial piece of capital equipment because of his limited sources of credit. As a ward of the government, he could not be sued, and therefore no bank would risk making him a loan. The canneries were the only commercial organizations that would make substantial loans....a man who was thus obligated to a particular cannery was expected to fish for that cannery until this obligation had been liquidated.

The most recent development in the fishing industry in B.C. has been the streamlining of the entire operation following mergers of most of the canneries into a few large corporations....most of the salmon are carried in good-sized tenders from the fishing grounds or from the camps to the large centralized canneries. This has had little effect upon the fishermen themselves, but has meant a loss of income to many cannery workers, especially to Indian women in the isolated villages." (Drucker, 1958).

The Native Brotherhood of British Columbia Self-description.

Mr. Ed Newman introduced this group as "Canada's senior Indian organization..."we take tremendous pride in our struggle to improve the lives of Indian people... we are sincere in our desire to provide a positive approach to solving the complex problems in the fisheries of B.C." (Pro. p.8912)

Mr. J. Rivard elaborated on the role and function of this organization:

"The Brotherhood was founded by a founding president, Alfred Adams. It was founded on the basic principles of betterment of conditions, socially, mentally and physically for Indian people. It also serves as a union. It negotiates with the fishing companies, the Fisheries' Association with regard to betterment in their wage price and benefits. (Pro. p. 8913)

"In 1969, when the Federal Government came down with the White Paper on Indian policies, the Indian Bands in this Province formulated the Union of B.C. Indian Chiefs. At that particular point in time, the president agreed to step out of representing the Indian peoples in these areas, and concentrate mainly on the fishing industry for the coastal people. However, in 1975, with the rejection of funds by the Union of B.C. Indian Chiefs, the Brotherhood again was called in to voice the concerns of the coastal tribes, and we carried out those concerns to the best of our ability. Never losing sight of the fact that the land claims and aboriginal rights question had to be settled at some time. It has played an effective role in developing economic --both social and economic programs for Indian people both on and off reserves, and continues to play an important role today in this area." (Ibid.,p.8914)

Economist Schwindt (1982) describes the Native Brotherhood in this way:

"The Native Brotherhood of British Columbia represents the majority of Native Indian fishermen, boat crews and shoreworkers, and essentially provides services similar to the UFAWU. In the past the Brotherhood and the UFAWU jointly bargained with the processors, and although they now negotiate separately, contracts are similar if not identical. In general the brotherhood honors UFAWU strikes. The Brotherhood also actively promotes the interests of both its particular constituency and Native People generally." (p.17)

Mr. Percy Gladstone, a Skidegate Haida person who obtained a Masters Degree in Economics and Political Science in 1959 from the University of B.C., described the Brotherhood thus:

"In 1934 the Native Brotherhood of British Columbia was formed primarily as a fraternal group....by 1945 the Brotherhood was officially recognized by the British Columbia Department of Labour as the bargaining agent for all B.C. Indian Fishermen....its strength as a bargaining agent is due to its close co-operation with the UFAWU. The two organizations attempt to settle prices, working conditions, wages, and other matters of mutual interest with the Fishery Council of B.C. before the season opens.... The organizations have an oral understanding that the UFAWU will not use undue pressure to enroll Indian members." (Gladstone, 1959, p. 254)

This author also had some interesting things to say about the relations between Native and non-native fishermen:

"At first glance it would appear that the antagonism resulting from the competition and hazards of the industry would result in the formation of heterogeneous competing groups. Yet these very difficulties and problems help create a strong group sentiment and a feeling of the need for mutual aid, a condition necessary for the formation of strong labour unions. This group sentiment has been strong enough to transcend occupational antagonism, language and racial differences, as well as geographic isolation. Many Indian fishermen feel a kinship with their fellow white fishermen to a degree only slightly less than with other Indian fishermen. The result is that the Indians actively co-operate with white fishing unions, though they join only as a last resort." (Ibid.,p.243)

It is interesting to note the pride with which the speakers for the Brotherhood described their members business ability:

"We refer you to the Indian Fishermen's Assistance Program, which was implemented in 1968, and expired in 1978. There was a total of sixteen million dollars to the Indian people in this program, of which fifty per cent was through contributions and fifty per cent through loans. What is important to note in this is that the repayment program on the loan was ninety-one point seven per cent, the highest in any government program to date. I think it indicates that if Indian people are given a chance, they too can prove to be good businessmen. (Pro., p.8914)

APPENDIX 2

The United Fishermen and Allied Workers Union

Quote #1

"We oppose ocean ranching on a number of grounds. Firstly, ocean ranching and commercial fishing (as we know it today) are totally incompatible. Ocean ranching can only be developed at the commercial fisherman's expense. The resource is fully exploited now and need not be split into any more shares. At least 18,000 people have developed a dependency on the industry as we know it today. We do not believe the disruption caused by a shift to a new form of tenure can be justified.

Secondly, the privatization of salmon streams places a heretofore public resource at the whim of a profit-loss sheet with little respect for the long-term prospects of salmon.

Thirdly, the track record of ocean ranching where it had been attempted indicated that it is not yet a scientifically proven success and in fact, causes more problems than it solves." (Exhibit #138,p.10-18)

Quote #2

"...there can be no doubt that such a move in the B.C. fishing industry is being seriously considered by various private and governmental bodies. Verification of the above would seem evident both by B.C.D.C.'s proposal and supporting statements by Mr. L. Gibson, chief of management services...There is in addition, the department's own document entitled, "A Western Blueprint for the West Coast Fishing Industry" which certainly enforces our belief that such a direction is now being considered and in some ways enacted." (Exhibit #22A,p.1)

"In short, the move to ocean ranching, and aquaculture, and the obvious interest projected by the private sector poses some ominous scenarios for the future." (Ibid.,p.2)

"In this vein we must seriously question the advisability of allowing private interests to invest and consequently manage a renewable and public resource such as marine protein. The existence of the projects named directs a concerted attack on environment and habitat which does not weigh up the sociological or renewability factors in the decision making process but rather compares values and inevitably decided in favour of capital...We suggest to the Commission that these concerns are not futuristic and that the commercial fisherman as well shoreworkers must now be brought into the process to defend their vital interests. The obliteration of the commercial fleets and the implementation of terminal fishery combined with aquaculture and ocean ranching would rationalize the private interests very well." (lbid.,p.3)

M. Darnell in Chief:

"...if we're going to move into aquaculture and ocean ranching...are we going to do it in tandem with the traditional fisheries. Or are we going to replace the traditional wild stocks with industrial stocks or artificial stocks, at the detriment of the traditional commercial fishery...(Pro.,p.1016)

"...I think we're at the crossroads here in British Columbia particularly....who is going to running the salmon industry...(Ibid.,p.1017)

"...if you are going to get into it in a large way, in a serious way, in the question of the commercial fishery, we prefer to see that done under the auspices of the Department of Fisheries. In other words, we think it might start to be diversifying yourself too much if you start getting hundreds and hundreds of small, of different groups involved in the question." (Ibid.,p.1022)

Quote #3

Mr. G. Hewison, the secretary-treasurer of the UFAWU, engaged in a revealing dialogue with Ms. E. Pinkerton, a sociologist who presented a brief on her own behalf:

Cross-examination of E. Pinkerton by Hewison: "...There are a few questions that come up. One of the areas, and that's not discussing the philosophy of the thing, but the concept of putting quotas on areas in the reality of today's British Columbia, what do you think that would do in terms of the ability of fishermen to negotiate, say, with the one or two large corporations, given the fact that fish runs are in the north -they hit the northern areas first, generally, and then tend to move in a southerly direction. If they want to withhold their product from the fish companies in order to extract a better price. Have you given any thought to that aspect of it?

- Pinkerton: I don't see that collective bargaining would be in any way reduced by people having quotas. People can still bargain in the same way they always have.
- Q: Let me just explain my point. The Japanese people, before the Second World War, had a form of area licensing in which, if there was a strike in Rivers Inlet, they lost their season. The other people would move, and they could take advantage of runs in Johnstone Straits...(Pro.,p.4620)

Quote #4 Cross Examination of BCDC by the UFAWU

Mr. Briggs Cr.-Ex. by Procopation:

Q: You say that B.C.D.C. is going to look at this on an experimental basis for a certain length of time, and try and develop certain specific runs of salmon or -- you weren't so specific but the returns of salmon, and you're then saying that it will be turned over to the private sector. Maybe we could ask the question, who in the private sector are you going to turn it over to? How is this going to happen? Is it any specific company or is it going to be a bid? We are now taking resource that belongs to the people of the country, ot it originally did, and then you're going to all of a sudden have some specific company managing this for its own specific purpose eventually. We can foresee this happening just as much as it does with Union Carbide or Weyerhaeuser.

Mr. Briggs

A: We can envisage a group of fishermen as a limited company, bidding for and buying such an enterprise, and operating a commercial fishery as they do in Alaska. We can see Native peoples undertaking this sort of activity. We can see frustrated Federal Fisheries biologists grouping together and buying such a unit.... (Pro.,p.6201) Q: "...Some of the things that we know are happening, so all of a sudden it becomes an exclusive preserve, whether it be for the Indian interests or other interests, it doesn't matter, as you mentioned all these different people, you're not even sure who, but it becomes an exclusive preserve for whatever is left, just like happens across the line in these different areas like in Oregon and Washington, where we have more or less the same type of terminal fishery that you're talking about, because of the other problem.

The problems that there are people, and your government is on record, or has been trying to dam every river in the province if they could for power -- we happen to know that the Moran and MacGregor projects are not dead, even after this time. We know of other projects that are going to be, or are talked about in development, and I'm just wondering if you could tell us here, what assurances have you from your government, that this won't happen..." (Pro.,p.6205)

Quote #5 UFAWU cross-examination of Mr. J. Davis

Mr. J. Davis Cr.-Ex. by Hewison

- Q: One question I'd like to just conclude on, one area of questioning, how do you perceive the role of fish processors in all of this?
- A: I haven't addressed that. I see them, at least in my submission, as being at arm's length from the fishermen and the concerns that would operate the weir concessions. I really see them as essentially like other industry, operating under the rules that other industries have to observe.
- Q: Well, one of the main arguments against traps and weirs in the past has been that it tends to favour domination by fish processing companies, is that not a fact?
- A: I don't know...(Pro.,p.6868)

Quote #6 "Private for Profit" article in "The Fisherman."

At virtually the same time as the Final Report of the Commission was released to the industry, writer Mr. Geoff Meggs of <u>The Fisherman</u> newspaper featured a major article on "Ocean Ranching", entitled "Private for Profit". This article documented the corporate ocean ranching experience in Oregon, as he saw it.

"In the past 11 years since private ocean ranching has begun in Oregon, the state's famous dory troll fleet has gone from boom to bust..." (<u>The Fisherman</u>, Sept., 1982)

"Every year releases have increased and every year since 1979 - the year the first significant ocean ranching returns came back - Dave Schlip's fishing has been cut back."(Ibid.,p.1)

"There is no doubt in Schlip's mind that private ocean ranching will mean the end of B.C.'s commercial fishery. "If private aquaculture went into B.C., all the way into private hands, you'd see the end of your gillnet and seine fishery, you'd see all the full-time fishermen being squeezed out. You wouldn't have anybody left." (Ibid.,p.2) On the relation of the Salmon Enhancement Program to the concept of ocean ranching, Meggs had the following comments:

"While the publicly-owned program withers, it is feeding the development of a strong lobby pushing for elimination of S.E.P. and the creation of private ocean ranching. Through contracting-out, SEP is financing the development of private companies with the skills and desire to take over for themselves. And because contracting out costs more than doing the same work with public servants, SEP is robbing the public program to create a potential private one." (Ibid.,p.3)

"Underwood McClelland and Associates, whose jobs included design work for Weyerhauser's OreAqua Foods Ltd. ocean ranch in Oregon, is not running Little Qualicum for entirely altruistic reasons. While UMA specialists gain experience and contacts working at Little Qualicum, they are selling their skills to major corporations undertaking the public campaign to privatize ocean ranching in B.C. It was UMA's Sinclair who did much of the research that formed the basis of the B.C. Development Corp. proposal that was presented to the Pearse Commission in 1981." (Ibid.,p.3)

Meggs noted that the leaked DFO policy paper "The Road to 1995" stated that "it (the community program) is a unique form of privatization of fish enhancement of fish enhancement". He also noted that Native Brotherhood brief called for a commitment to ocean ranching, via the Native Community programs. Hence in Meggs's opinion, this policy paper "is Canada's road to private for profit ocean ranching". He concluded his article with the statement that "Privatization of the Salmonid Enhancement Program would mean the eventual end of any common property harvest by commercial, Indian or sport fishermen."

Quote #7 Salmon Ranching turned down as a policy option by the Pacific Region Fisheries Management Advisory Council (MAC)

In the later part of 1982, the Minister's Advisory Council was mandated to carefully examine the recommendations of the Commission on Pacific Fisheries policy. On Jan. 5, 1983, the recommendations of Commissioner regarding pilot projects in ocean ranching and in wild stock TURFs were examined by this council.

<u>Motion # 25</u>

moved by: J. Nichol seconded by: W. Peterson

"That because ocean ranching has the connotation of exclusive right of harvest, the MAC oppose it."

Carried (1 abstention - E.Newman)

Quote #8 U.F.A.W.U. telegram regarding the sale of food fish by the Qualicum Band

In the fall of 1983, the Minister of Fisheries, Pierre De Bane, signed an agreement with the Qualicum band to allow the sale of food fish. In a telegram to the Minister on Nov. 17, UFAWU president Jack Nichol wrote that "commercial fishermen are indignant over the commercialization of the Indian Fishery at the Qualicum River and view government agreement as the implementation of the Pearse Report without consultation and consensus on policy." (The Fisherman, Nov., 1983)

Quote #9 Fishermen's Survival Conference

In December of 1983, the UFAWU called together a Fisherman's Survival Conference, which was attended by fishermen from virtually all of the other gear groups. It was very largely precipitated by the signing of an agreement enabling the Qualicum Band to establish a TURF and to begin selling what were formerly "food" fish, as Minister De Bane had promised, in principal, in a speech before the Native Brotherhood.

This conference was followed by a lobby to Ottawa of over 100 fishermen. At this conference, the UFAWU offered evidence to show that the Department of Fisheries was now seriously considering the implementation of a major plan that would see massive change within the industry, including the following:

"It (buy back) will be designed to compensate the commercial fishermen who are totally crippled by far ranging government policies. Fisheries resources particularly salmon will be eroded by:

- 1. Environmental degradation.
- 2. Re-allocation to recreational fisheries.
- 3. A supine Canada/U.S. salmon treaty.
- 4. Reallocation of salmon and other species to Native Indians as partial settlement of land claims.

At a meeting on Monday, December 5, Terry O'Reilly used the expression "there will not be expropriation without compensation". <u>Your rights are to be expropriated.</u>

This conference must be the beginning of a massive fight-back by fishermen who not only wish to survive, but can survive and indeed prosper if we are able to redirect the thinking of the short-sighted mandarins in Ottawa and lame duck ministers and their aides." (Notes for Report on MAC, Fishermen's Survival Conference, 1983)

Motions passed at this conference included the following:

"Resolved: That we condemn the federal government for its actions at Qualicum, which introduced privatization of the resource along the lines of the Pearse Report and opened up a race-oriented division in the fishing industry...

Resolved: we insist that land and resource claims, aboriginal title and future development of the rights of Indian people are not handled in a way as to adversely affect all commercial fishermen, Indian and Non-Indian.

Resolved: That we support the efforts of the Indian people in achieving a just, overall settlement of their claims based upon consultation which would build unity by minimizing adverse consequences such a settlement may have upon commercial fisherman, both Indian and Non-Indian." (Report of the Fisherman's Survival Conference. Dec., 1983) A policy demand agreed upon at the conference also included "total opposition to ocean ranching and privatization of the resource."" (Report of the Fishermen's Survival Conference, Dec., 1983)

Quote #10 Letter to U.F.A.W.U by the Qualicum Band

In April, 1984, The Fisherman published a letter by a representative of the Qualicum Indian Band:

"The fears about the Qualicum Fishery need not have been compounded by rumours and distorted facts and figures if the UFAWU leaders had seriously wanted a dialogue with Native people....

It seems to me, with a bit of planning and co-operation by all parties involved in this issue, that there would be enough to satisfy the just claims of British Columbia's Native people; the management skills of the bureaucrats (from both government and organizations representing various user groups), the commercial fisheries, and the recreational fishery.

Why not shift the focus from the negative to the positive and see what happens? We can't make much more of a mess than we are in now, but we might just come up with a solution if we give it a try." (Letter to <u>The Fisherman</u> by Diana Recalma of the Qualicum Band, April, 1984).

Quote #11 Pacific Fisheries Restructuring Act

The policy which finally emerged from D.F.O. and was prepared for implementation by statute did not, in fact, deal specifically with the TURF issues which so concerned the union. Instead it's focus was on a system of fishery allocations relating to fishing gear and fishing areas, with the election of area fisheries management committees:

Pacific Fisheries Restructuring Act

- 4. (1) To carry out the purpose of this Part, the Minister may...
 - (b) implement programs to establish a system of fishing allocations, to refine the licensing systems relating to areas and fishing gear in order to improve the management of the fisheries, to enhance the fish resources and the quality of fish habitat and to promote river mouth and owner-operator fishing;

However, none of the above policy was implemented, for with the defeat of the Liberal government the Pacific Fisheries Restructuring Act died.

The UFAWU has since shifted its attention to the issue of the development of salmon farming, a form of mariculture that it was willing to accept at the time of the Pearse Commission. During the hearings of the Standing Committee on Fisheries and Forestry in the spring of 1985, the Union urged that no further salmon farm leases be issued without the approval of the fisherman's organizations "representing the majority of fishermen". The UFAWU has come to problem-framed this activity with much of the same rationale that it once used to describe ocean ranching.

In December, 1985, the UFAWU successfully introduced a resolution at the

B.C. Federation of Labour Convention which would impose a moratorium on salmon farming licenses.

United Fishermen and Allied Workers Union Perspectives.

The following statements sum up the perspectives of the UFAWU in regard to TURFS.

It can only be developed at the expense of commercial fisherman, as the resource is fully exploited now and can not be divided into any more shares. (Quotes #1,6)

The social disruption caused by the introduction of this new form of tenure can not be justified. (Quotes #1,9)

Significant discrepancies exist between public and private discount rates; over the long term this would lead to a degradation of both fish stocks and habitat as private profit was put before the public interest. (Quotes #1,2)

This concept is not a biological success elsewhere in the world. (Quote #1)

The development of this concept would lead to an obliteration of the commercial fleets. (Quotes #2,5,6,9)

Wild stocks would be replaced with artificial stocks. (Quote #2)

The UFAWU would prefer DFO, rather than many small coastal groups, to be the husbanders and managers of the salmon. (Quote #2)

The development of this concept would reduce the ability of Union fishermen to withhold their product (i.e. to strike) from the fish companies, and thus to extract a better price from them. (Quote #3)

The UFAWU was apprehensive that large multinational corporations end up holding the areas, and that these companies would be interested in pre-emptive industrial use detrimental to fish habitat. (Quotes #2,4,6)

The development of this concept would automatically lead to the establishment of conditions similar to those which have come to exist in Oregon and Washington. (Quotes #4,6)

B.C. Hydro would take advantage of the concept to begin building dams on the major salmon rivers in B.C. (Quote #4)

Traps and weirs (if used) would favour domination by the large fish processing companies. (Quote #5)

If this concept was allowed to develop from any part of the Salmon Enhancement Program, this development would eventually lead to the end of all commercial, Indian and sport fishermen. (Quote #6)

To date the consultation forums held within the industry that are participated in

and therefore held to be credible by the UFAWU have rejected this concept. (Quotes #7,8)

This concept must not be used as a means of settling Indian land claims because:

- a) It can not be developed in a way that will not adversely affect commercial fishermen. (Quote #9)
- b) As it has been rejected by fishermen to date, it would not be expected to receive the approval of fishermen in the future (who must be consulted in the land claims process, to insure that their interests are not adversely affected.) (Quotes #8,9)

Exclusive rights of harvest must not be allowed to exist within the context of the common property fisheries. (Quotes #4,7,9)

UFAWU Descriptive Material

U.F.A.W.U. Employment in Salmon Fishing and Processing,

As the UFAWU is not an officially certified Union, statistics on its total membership is not published by the government. Similarly, detailed employment figures are not published by the UFAWU, although they often appear in the pre-amble to the many briefs produced by this organization:

1977 7,000 (UFAWU Submission to standing Committee on Fisheries and Forestry, 1977)

1981 8,000 (UFAWU Submission, Exhibit #138, Commission on Pacific Fisheries Policy, 1981)

Probably the best indication of the number of fishermen within the B.C. salmon fishing industry that belong to the UFAWU is indicated by the vessel "clearances" lists that are published by the Union's newspaper, <u>The Fisherman</u>. These clearances indicate that the owners of the vessels agree to sell their fish for not less than the union negotiated price, and that they will honour strikes. They also indicate that the crewshare arrangements aboard these vessels abide by Union standards, and that the crew are Union members. Although seine skippers are not allowed to be union members, skippers on smaller vessels are allowed to be. If we assume, also, that 1/2 of the "smallboat" category is gillnetters (1.5 skipper and crew per boat), and the other half is trollers (2.5 skipper and crew per boat), we come up with 1.87 persons per smallboat. With the assumptions, then of Seine (4 crewmen) and Smallboat (1.75 skipper and crew), we come up with the following;

Gear	#Of Persons	1981 Clearances	Union <u>Fishermen</u>	Non-Union <u>Fishermen</u>
Seine	4	230	920	1765
Smallboat	1.87	748	<u>1398</u>	<u>6646</u>
		Totals	2318	8411

Data Source:

Clearances listed in <u>The Fisherman 1981</u> Vessel numbers from DFO, 1984. Therefore a total of about 22% of the 10,729 salmon fishermen in the B.C. salmon fisheries belong to the UFAWU.

UFAWU, Schwindt, Shaffer on the United Fishermen and Allied Workers Union.

In the largest of its many briefs to the Commission on Pacific Fisheries Policy, the U.F.A.W.U. describes itself:

"an 8000 member organization whose roots go back more than fifty years. In its ranks are fishermen of every gear type, as well as fish transport and processing workers. Its policies are formed democratically by debate in locals and on the job. The heated debate at Annual Conventions has brought about programmes and policies which have stood the test of time." (Exhibit #138, p.G - 1)

The U.F.A.W.U. came to be in it's present form in 1945 with the merging of the Fish Cannery, Reduction Plant and Allied Workers Union and the United Fishermen's Federal Union. (North and Griffin, 1974).

Economist Schwindt (1982) describes the UFAWU in this way:

"Of these (the organizations representing fishermen) the most important is the UFAWU which represents a membership of 8,000 drawn from fishermen, shoreworkers and tendermen. The UFAWU bargains with the Fisheries Association of British Columbia, representing the processors. Items for negotiation include minimum net caught prices and crew shares in the salmon fishery, minimum crew shares in the roe herring fishery and wages and benefits for tendermen and shoreworkers. While the UFAWU represents something less than 50 percent of the fishermen, its power in the fishery derives from its representation of tendermen and shoreworkers. In effect a strike called by the UFAWU will close down all the major processing facilities and a majority of the packer boats. In the case of a breakdown in negotiations over prices, the union fishermen refuse to fish and union shoreworkers and tendermen refuse to handle "hot" fish caught by fishermen outside the union.

There has in fact been considerable contention over the role of the UFAWU as a labour union. The UFAWU is certified under the British Columbia Labour Code as the bargaining agent only for shoreworkers and tendermen, and not for fishermen. (p.14)

"The market power of the UFAWU remains open to some speculation. As the bargaining agent for shoreworkers and tendermen its ability to affect the sector is evident and has been exercised. Its direct and indirect influence as a representative of fishermen is not clear." (p.17)

Another economist, Marvin Shaffer (1979) compared the actual landing prices paid to fishermen over the 1973-1977 period to negotiated minimum Prices, and concluded that the "net fisherman's organizations" enjoyed little real market power.

The UFAWU on the Nationalization of the Fisheries.

The UFAWU has long been a strong advocate of the public ownership of natural resources and the development of secondary industry by Crown Corporations:
"In 1969, our Union in Annual Convention, unanimously adopted an emergency resolution, calling upon the Federal Government in co-operation with the Provincial Government, to nationalize the big fishing companies with adequate control guaranteed through the establishment of an independent Board, with representatives from workers.... More resolutions were passed in 1970 and 1971, calling for public ownership of natural resources and development of secondary industry by Crown Corporations...(Minority report to the West Coast Salmon Fleet Development Committee, April, 1973)

A history and summary of the Union, "A Ripple, A Wave" (1974), reiterates the same theme in its' concluding chapter, but adds another common union accusation, that of the manipulation of government licensing policy by the big fishing companies:

"The greatest obstacle to economic and social justice for all fishermen is the monopoly which distorts the development of the fishing industry in its insatiable quest for profits, whether it be in cannery closures depriving Natives of their Traditional livelihood or in the manipulation of vessel financing and licensing to perpetuate its control of production. In the wider context of the popular struggle, and labour's decisive role in that struggle, to free the country from monopoly control and open the way to social advance, British Columbia's organized fishing industry workers face the necessity of fighting for the nationalization of the fishing industry." (North and Griffin, p.57)

An April, 1982 editorial in "The Fisherman" reiterates the theme of nationalization:

"The call for public ownership inevitably prompts hysterical outcries from big business apologists who believe the invisible hand of the marketplace must be left alone to order the world in the most efficient way possible. That invisible hand has had free rein in the B.C. fishing industry for decades and monopoly, over capitalization, declining prices, lay-offs and closures have been the result....The only real answer to the problems posed by monopoly of the industry is public control, not just of the failing plants that the multinationals cast off but of the entire system of fish processing, distribution and marketing." (Editorial, The Fisherman, April 23, 1982)

Thus the union has been wholehearted and consistent in its' advocacy of massive social change in Canada, away from the existing system of laissez-faire capitalism to one exhibiting a much greater degree of control and ownership by the state.

The UFAWU on the Importance of Collective Bargaining.

Coupled with the concept of oppression by large capital is the concern of the UFAWU over the capacity of fishermen to effectively bargain for better fish prices. A prerequisite of this must be to define fishermen before the law as workers rather than entrepreneurs, a battle which has not officially been won to date. (Western Fisheries, 1979) But with confidence, consistency, and much emotion, the union has continued this fight, constantly assuming the role as that of the defender of the worker (including, of course, fishermen) from the rapaciousness of big capital:

"Now in the principles that lie behind the brief, if you notice, we speak quite extensively of two different groups that seem to be interested in the fishery in the main, and that is the group that is represented by the word "capital", and there is another group, which as far as I'm concerned our organization truly does represent, and that's the people in this industry. And this brief deals with the interests of the people in the industry, rather than the interest of capital." (Pro., p.4912)

Thus fishermen are seen to be engaged in a class struggle where they are exploited by forces that are intent only upon exploiting them. So the reasons for the impoverished state of the fishing industry are not those described by fisheries economists, but are clearly and simply the results of oppression by big capital:

"If there is a "tragedy" (of the commons) in the fishing industry it is that commercial fishermen get to keep damned little if anything of the wealth they produce...." (Nichol, 1983, in memo prepared for the Fisherman's Survival Coalition)

Thus fishermen must be workers, rather than entrepreneurs, simply because the prices paid for their fish by the fish processors are not at the whim of a so-called "free market", but are entirely controlled by the forces of capital:

"Alone and unorganized, the fisherman cannot be on equal terms with the fish buyer. The unorganized fishermen are just as readily exploited by the wholesale fish dealers and fish processing companies, as are unorganized wage workers on shore. In fact, the perishability of the product of his labour, may place him in an even worse position than his fellow workers in the plants." (Submission by the UFAWU to Federal-Provincial Conference on Fisheries Development, Jan. 20, 1964 P.4)

Because they define themselves as workers, union fishermen feel oppressed by legislation that defines them as entrepreneurs, for this legislation actually makes it illegal for them to engage in many of the activities of a regular union:

"In law, small boat fishermen are still entrepreneurs, denied their status as workers under all except the Unemployment Insurance Act, and even that is constantly threatened..." (The Fisherman, Feb., 1973)

"Many finely drawn legalistic phrases have been used to create the impression that fishermen are "sharemen" "entrepreneurs" or "small businessmen" and not true "workmen"....The rate per pound of fish caught and delivered, minus expenses, constitutes the piece-work wages of the vast majority of Canada's fishermen. Again we exclude the owners of the large vessel who employs fishermen to catch and land fish." (Submission by the UFAWU to Federal-Provincial Conference on Fisheries Development, Jan. 20. 1964, p.4)

APPENDIX 3

Sportfishing Interests.

Quote #1 B.C. Wildlife Federation first brief to the Commission.

"A number of bands have, under the authority of the Indian Act, instituted by-laws which purport to give the Band full control of all fish and wildlife resources on the reserve. In effect, transferring management control of the fish from Fisheries and Oceans to the Band Council....What is needed, and is needed for three years now, is a definitive judgement from the Supreme Court of Canada. For over three years now the collective brass have done nothing but stand around and wring their hands. (Exhibit #30, p.15)

Quote #2 B.C. Wildlife Federation second brief to the Commission.

"D.F.O. have stated that through decisions made by the Justice Department on the Band By-laws the conservation and protection of the fisheries resource has been so seriously eroded that the future of many salmon stocks is in jeopardy. With this we totally agree. If the purpose of the Band By-Laws is to "provide for proper management and conservation of the fisheries", we challenge the Bands covered by the Band By-Laws to prove to us how the fish are better managed now that the By-Laws are in existence." (Exhibit #169, p.10)

Quote #3 Native Brotherhood of British Columbia Cross-examination by the B.C. Wildlife Federation.

Q: It may be cheaper than -- We get the odd commercial fishery gets the odd Coho and Chinook too, you know.

What I want to clarify is when the Commissioner mentioned the licence thing, and I noticed your reaction; I take it you don't see these facilities as being, the facilities themselves, a marketable product? They would remain in the vestige of the Crown, or in a community, and would not be -- they would become more productive or valuable that they would not be for sale to B.C. Packers or anybody else?

Mr. Rivard:

A: Yes, that's our concern, Bill, is we don't want that kind of stuff to happen, because then we started to lose the intent why we put those things in the first place, and that was to rehabilitate the stocks and create employment.

Commissioner Pearse: Let me just press that point. I think that Mr. Otway touches on an important point. I think I understand your argument, Mr. Rivard, as it applies especially to native Indian communities, which is who you have in mind mainly in promoting this proposal.

> Suppose, however, that it was extended to other groups, non-Indian groups, perhaps even one of the member organizations of the B.C. Wildlife Federation in the extreme case, or perhaps a private company. Supposing, you know, some fishermen decided to set up a company called the Johnstone Straits Aquacultural Company or something or other, and entered into a contract with the government to do the kind of thing that you're doing here.

Would you have any objection if that company transferred its contract and its -- what did we call it -the priorities and privileges, or whatever it was, transferred that contract to another, even an Indian group?

A: Well, let me put it to you this way. As long as the intent and the objectives were the same, I don't see where there would be too many problems.

Commissioner Pearse: I can't see that it would make any difference to the --

A: As long as you are not going to start attaching dollar values to privileges or licenses, and you know, just look at the history of the commercial fisheries, and when licenses were going at \$10,000 a ton, now these guys who paid \$10,000 a ton, what are they faced with? You know, they can't even catch enough fish to make their interest payments. That's the problem that you can be faced with when you deal with attached values to those privileges.

Commissioner Pearse: Okay, Mr. Otway, go ahead. Mr. Otway: I think I would concur with you on that.

- Q: It follows a bit on the Commissioner's position, but the one problem I see is partly what he has brought forward, is where do you draw the line on this type of operation? I realize you were talking primarily for the native people here, but where do you draw the line? As Peter said, our clubs are doing projects up the stream, and the trollers -- I don't know if the seiners are doing anything, but the various groups are doing it. Where do you draw that line for it's my share of the fish?
- A: Well, we were hoping that the kind of projects we would put in place is that, you know, we're trying to make them self-sufficient, creating employment, and as long as we keep that objective in mind, drawing the line as to how much fish I'm going to get back, or how much am I going to sell, or whatever it is, I think it becomes very evident, you know, in your budgeting and planning. And it could be that when you start talking about doing a lot of projects, that you're going to need a central body such as the Regional Council we were talking about, to deal with, you know, how far are we going to go in this area, in any specific coastal community or project.

We have to look at the total amount of the effect that it's going to have on the fisheries. You know, there's such a thing as producing too much fish, you know, and consequently, the markets and the price drop." (Pro. p.14289)

Mr. Otway:

Q: That's part of it. It's where do you draw the line, as I say. We've got projects all over right now that people are doing, donating labour, or doing or being paid under various projects, and you know, do you draw it at coastal communities? Do you say, you know, our club at Sapperton is doing a project on the Brunette Creek.

Now, are we going to say well you don't live in a community -- in a coastal community, or you know, you're not a native group, or whatever, so therefore you're not entitled to a percentage of the fish, or are they going to say, you know, they're entitled to a percentage of the fish, we're doing the same job, we're

entitled to a percentage of the fish, and that's just one of the problems that I see evolving out of the thing. That's the only concern I have.

- A: Okay, and it's a legitimate concern. Our intent, you know, is to create employment, and to make those units self-sufficient and to deal with the social unrest at the community level. I think if we can achieve those three through pilot projects, I think the rest will start to fall in place. Peter answered in part, they are pilot projects, and we have to try them out and see how they work. It could be that that's not the way to go, we have to scrap the whole thing, but the intent is not to do away with the traditional fisheries. The intent is to get the traditional fisheries back in line more to fish production, and one of the concepts of doing that is through Community Economic Development and the enhancement projects, that are going to be self-sustaining.
- Q: It's like everything, it has problems. I wonder if you're given any thought to -you're talking at the moment, 30 per cent, given your figures are accurate, require
 to maintain the projects. And the same project that you've given works out to
 roughly \$5 a fish production. Have you given any thought, first of all, of how
 you're going to cost control these projects? I look at the Capilano, which is over
 \$3 a fish, the Big Qualicum, 60 cents; and the Quinsam at a buck seventy-five.

A: Right. (Pro.,p.14292)

Quote #4 The Amalgamated Conservation Society

"The Amalgamated Conservation Society does not support proposals by the British Columbia Development Corporation (BCDC) to take over control, management and marketing of salmonids from the Federal Government. We do not wish to see private companies managing entire river systems and establishing hatcheries for the purpose of controlling salmonid production and harvesting while, at the same time, downplaying environmental concerns regarding fish habitat to facilitate increased industrial development. Such a proposal may have serious effects in sport fishermen. Anglers could have to pay private companies for the fish they catch, they could be prevented from fishing at all or told by foreign interests where and when to fish. We cannot comprehend such a scenario." (Exhibit #47, p.5)

Quote #5 The Steelhead Society of B.C.

"The fuel guzzling ritual of chasing mixed stocks on the high seas is an anachronism that has perpetuated the decline of stocks of non-target species." (Exhibit #48,p.1)

"The time has come for terminal weir fisheries to be implemented on a broad scale for schooling stocks eg. chum, sockeye, and pinks. These weirs should be selective and allow for an exact count of the catch and fish released for upstream spawning. These weirs are not new. The last one in B.C. was shut down in the early 1900's due to political pressure from the same commercial interests that have consistently fought rationalization of the harvest. (Ibid.,p.2)

"Such scientific, rather than traditional, fisheries have been in place for several years at major SEP facilities. Surplus salmon are sold to the canneries under contract...Similar operations are in place in Oregon by Weyerhauser Corporation; and Alaska by several growing aquaculture corporations. We believe these scientific fisheries should be rapidly expanded. In particular, we support a quantum increase in the Babine fence fishery while phasing out the Skeena rivermouth sockeye gillnet fishery. This single management step alone can do more for our priceless Skeena summer steelhead than any conceivable combination of enhancement techniques." (Ibid.,p.2)

"In any event, an up-river harvesting, selective harvesting such as we're advocating for the Babine Band and perhaps for other native bands up the river using selective terminal weirs, would be an exchange for vastly stepped-up general efficiency of harvesting, and therefore the reduced overall quality of the product would be acceptable, and this is particularly true in view of the fact that we're talking about some socio-economic concerns as well and a transfer of wealth upstream from Prince Rupert." (Pro.,p.2365)

"....we've thought a lot about the loss of jobs. And if you talk about fish traps, we envision a co-operative kind of set-up that big companies don't get involved in. It's the fishermen themselves that would run and operate these facilities, and we've also -- in fact, we should have brought it up earlier today. It's very important that commercial fishermen. Wherever possible, in fact they should be trained and given every opportunity to become involved in the SEP program with Fisheries. There's all kinds of jobs that are available that commercial fishermen could move into as an alternative, and it means the co-operation, and all of us getting together and trying to find these sorts of alternatives." (Ibid.,p.2479)

Quote #6 Canadian Wildlife Federation vows to go to court if future land claim agreements grant native people exclusive hunting or fishing rights.

Wildlife threatened by native groups, Ottawa meetings told. (The Sun, Jan.6, 1982)

OTTAWA (CP) - Claiming Indians are a threat to wildlife, the Canadian Wildlife Federation has vowed to go to court if future land-claim agreements grant native people exclusive hunting and fishing rights or give them management authority.

Kenneth Brynaert, executive vice-president of the 486,000-member wildlife group, told a symposium on natural resources and native rights Tuesday that native people have failed to show they possess either the will or the capacity to manage wildlife responsibly.

The freedom of natives to hunt, trap and fish as they have for centuries was the central issue of the symposium of government officials, native leaders and wildlife groups, sponsored by the Canadian Society of Environmental Biologists.

Quote #7 British Columbia Development Corporation cross-examination by Mr. Murray (an individual sportfisherman)

- Q: "I'm going to refer to one of the questions you have here, but I'm one of the in fishermen. I fish for cutthroat trout primarily basically, and as a cutthroat fisherman, I wander the beaches. Now my concern is that if I happen -- if you happen to pick an area where I happen to like to go to fishing, or I want to go fishing, on page 23 of your brief, you're saying, for example, a recreational quota within a given area could not be taxed directly, but a compensating formula would be possible as a function of an angler to use in a fishery. Now, what I'm saying is that you're not going to produce probably cutthroat?
- A: No, but steelhead is something that's been suggested.

Q: But what I'm saying -- what I'm wondering here is, are you suddenly going to tax me?" (Pro., p.6214)

Quote #8 Mr. Lee Straight

Because suggestions about altering the status quo in any respect to do with salmon allocation appear hazardous to political representatives, the attitude has unswervingly been "hands off." That is despite the fact that senior people in biology, economics and stock management, when asked directly about such matters as offshore netting and trolling and instead, substitution of specialized weirs (traps), are compelled to admit that current and long-time methods have been wasteful and haphazard...the technology and sites are available to experiment with, and perfect, sophisticated trapping and sorting methods, permitting the allocation of precise numbers of fish to the various uses such as spawning escapement, commercial processing, freshwater angling and, where still deemed necessary, native welfare food supply." (Ibid.,p.4)

"The old traps still are clearly in the fishing industry. Less well known is just why they were universally banned on the west coast of Canada and the United States. They apparently were banned for two reasons. They were deemed to be too efficient and were generally in the hands of large companies, considered unfair competition for the independent small boat owner, roaming at large. Because the roaming netsman or troller of lines was more independent, even when contracted to canneries, and because his system of fishing was more labour-intensive, leading eventually to labour organization and more public voting power, the boat-related salmon fishing industry prevailed over the fish-trapper." (Exhibit #99. p.16)

"It is generally conceded that fixed, terminal salmon fisheries would be far more efficient....that we could allocate precisely between the salmon industry and the shares for Indians in need of the welfare (and of fish for ceremonial purposes). It is admitted that, from Alaska to Northern California, the current system of free-roving harvesting is deeply established in our industrial, commercial and social systems. As with all other change, there would be resistance to new methods, new allocation and what likely would be a reduction of the work force." (Ibid.,p.19)

"The eradication of the salmon fleets would permit the sport fishery the first try for the salmon. The resource can easily bear that. The sport fishermen....seek "battles" with fish which, with restricted tackle, they must "fool" or "lure", and they value unhampered freedom of the sea. Removal of competition from the commercial fleet would also remove the picturesque sights of the keen, energetic commercial fishermen at work, but it's a welcome trade for the first crack at the swarms of salmon." (Ibid.,p.21)

"Indians and non-Indians alike are into ocean ranching. The Indian always was an ocean rancher. He wasn't required to practice salmon enhancement, his population being so sparse and his harvest so light, compared with present days, but the Indian maintains his ancestors were conservationists.

To maintain the present inefficient and intemperate salmon industry, to maintain it as the only common-property resource used as a sort of welfare system, is difficult to justify in these days of burgeoning populations and threatened food shortages." (Ibid.,p.22)

Sportfishing Interests Perspectives.

Indian band by-laws that gave Indians full control of all fish and wildlife resources on the reserve would be a negative development as it would transfer management control from Fisheries and Oceans to the band councils. (Quote #1)

Through decisions already made by the Justice department on the band by-laws, the conservation and protection of the resource has been seriously eroded. (Quote #2)

The development of the TURF concept on a Native pilot program basis could lead to the development of other projects involving other fisheries groups, such as commercial fishermen. (Quote #3)

Members of TURF groups would acquire rights to a percentage of the fish. (Quote #3)

The TURF concept may not be economically feasible. (Quote #3)

The control, management and marketing of salmonids should not be taken from the Federal government and delegated to private companies, as this would have serious effects upon sports fishermen. (Quote #4)

Private companies should not be allowed to manage river systems because environmental concerns would be downplayed to facilitate increased industrial development. (Quote #4)

Were TURFs implemented, anglers would have to pay for the fish they catch. (Quote #4)

Foreign interests which would acquire TURFs could even preventing sports fishermen from fishing. (Quote #4)

Catching salmon on the high seas has caused a decline in the stocks of salmon. (Quote #5)

Weir fisheries, which were shut down by commercial interests, should be reinstituted as they lead to better biological management. (Quote #5)

Summer steelhead runs would be better aided by the development of upriver weir fisheries than by any other management action. (Quote #5)

The reduced value of upriver salmon would be offset by reduced harvesting costs. (Quote #5)

Co-op weir set ups, that fishermen could run and operate, are envisioned as developing as a new alternative in the fisheries. (Quote #5)

Indians are a threat to wildlife, as they have failed to show they possess either the will or the capacity to manage wildlife responsibly. (Quote #6)

Sports fishermen could be taxed if the B.C.D.C. TURF concept were instituted. (Quote #8)

Political pressures prevents the development of such concepts as weir fisheries. (Quote #8)

The historic traps were generally in the hands of large companies and were not labour intensive; voting power in the hands of more labour intensive boat-related labour organizations in salmon fishing eventually led to the traps being banned. (Quote #8)

Fixed terminal fisheries would allow for more precise allocation between user groups. (Quote #8)

The eradication of the salmon fleets would give the sport fishery the first try for the salmon; sport fishermen value unhampered freedom of the seas. (Quote #8)

Indians always were ocean ranchers, but as their population was so light, they were not conservationists. (Quote #8)

APPENDIX 4

The Fisheries Association of British Columbia

Quote #1 The Fisheries Association of British Columbia, first brief to the Commission.

The modern feasibility of the concept of TURFs is dealt with rather curtly by this group, which appears very well aware of the political pressures which lead to the demise of the processor-owned salmon traps in times past:

"While it is not true of other fisheries, the commercial salmon fishing fleet at least partially owes its existence to the government edict banning the use of traps and weirs. In this sense then, the commercial salmon fleet is an inefficient structure (in comparison to a combination of vessels and traps and weirs) that has been designed by overall government policy whose primary purpose is social rather than economic. The fleet has grown over the years "like topsy" from a combination of open entry fishing and in latter years a license limitation programme which itself contributed to changes in vessel capability and in overall fleet make-up. (Exhibit #63,p.14)

"Some of the benefits of the concept of proprietary rights have been eloquently expressed by Dr. Pearse and others elsewhere, and rather than retrace these paths, we would like to point out some serious difficulties we foresee with schemes of this nature. The definition of qualified participants in a proprietary rights programme would be most difficult when one considers potential players such as the Native Indian food fishery, sports fishermen, the sports charter fleet, the various categories of commercial fisheries, commercial processors and other persons or corporations who might be eligible for participation. The complexities of salmon fisheries management would make it virtually impossible to claim proprietary rights without a return to terminal fisheries. That is, most salmon stocks pass through several fisheries on their way to spawning streams and existing harvesting techniques provide little surety as to what stocks are being caught in what place. even under present sophisticated fisheries management mechanisms. Furthermore, both herring and salmon fisheries are prosecuted to escapement levels because we do not have the sophistication to accurately predict returns. This latter fact alone would lead to the conclusion that proprietary rights to a resource cannot be sold or allocated, but rather fishing opportunities would be the only saleable commodities. In effect, the existing license limitation programme is designed to provide exclusive opportunities. Various allocation schemes have been proposed and have been effective in the fisheries." (Ibid.,p.21)

This association saw government social programs as an encumbrance upon their activities:

"Above and beyond the general tax structure, the fishing industry is being taxed in another way as well. The industry is being used by government as a delivery system for social programs and objectives, and to the extent that there are more fishermen than the industry can reasonably support, there are more processing facilities, more shore-based and water-based jobs than are justifiable from a pure economic standpoint, then the industry must be considered as one in which government regulation and policy is imposing a special social tax." (Pro.,p.3263) However, in the long run this association does foresee the prospect of the attainment of both the social goals of government policy and objectives of free enterprize:

"We believe that a healthy fishery can be achieved coincidental with public and social aims by allowing a free and competitive industry within long run parameters established by government". (Exhibit #63, p.2)

Quote #2 The Fisheries Association of British Columbia, second brief to the Commission,

"The public forum process that has been utilized by the Commission has served a useful purpose in getting all interested groups to publicly outline their concerns and recommendations. For the most part, these concerns have criticized the attempts of government to infringe on the rights and privileges of individuals to fish in common with other individuals. It is a fact that every new enclosure of the "commons" involves the infringement of somebody's personal liberty. Infringements made in the distant past are now accepted, however, newly proposed infringements are vigorously opposed with cries of "rights" and "freedoms", etc." (Exhibit #186. p.10)

<u>Quote #3 Cross-examination of the British Columbia Development Corporation by</u> <u>Mr. Safarik</u>

Mr. Safarik:

- Q: Do you feel the D.F.O. is capable of -
- Mr. Ballem: Could you move closer to the microphone?
- Q: -- of regulating the interception so that the maximum sustained yield is going to exist, the resource is going to be protected, you're going to get your share and we're going to get ours?

Ouote #4 British Columbia Packers Limited

"We believe that economic, as well as resource management imperatives will, over time, dictate that the commercial fishery retreat toward the destination of returning salmon. This retreat will undoubtedly be gradual, rather than overnight, but should be considered when designing a fishing and fleet plan, and when considering a buy-back program.

Such a statement need not necessarily conjure up the vision of traps, but it certainly opens the door for their consideration sometime in the future. As with Ocean ranching, business structure (a subject dealt with later) would probably be required to undergo change for such catching methods to be acceptable." (Exhibit #98,p.12)

Buchanan Cr-Ex. by Bisaro

Q: Well, the solution that you propose being the terminal solution, sounds rather ominous, particularly for trollers, and I would just like to know where trollers would fit into this plan. You recognize the fact that there would be some difficulty. In that regard...

Commissioner Pearse: It's a terminal solution for trollers---

A: Maybe for B.C. Packers too. No. I don't think we're addressing it to any specific class, we're just addressing the principle, that over time, one would expect to see the fishery for economic, if not for other reasons gradually retract...(Pro.,p.5974)

Buchanan Exam, by Pearse

A: Well, our view on that is that it's a matter of timing and we're certainly in favour of more fish production and the fish culture area if you want to call it that, but we don't see in place now the fishing or harvesting activity being consistent with ocean ranching which is basically a terminal fishery. And it's pointed out here, really, that the salmon enhancement program is an ocean ranching program, it's the ocean-ranching program, and it's producing fish into the traditional harvesting through fishing vessels, in commercial, through sports fishing. Now, it's a little difficult for us to imagine, and I think we can be distant in this from an observation standpoint, that how would you, let's say take an ocean ranch, that's pumping fish out, and how do you secure that fish back to the ranch to the investor? And that investor, will be making demands on, let's say laying off harvesting in certain areas, to protect his fish that's following back through this through the fishery to his - to its home. And I have difficulty understanding how that would work in this fishery at this time. The -- it stated here, there may well come a time for this practice, but only after research, rationalization and other structural problems are dealt with.

We urge the resource managers to resist this temptation in the meantime. We're not saying it'll never work, we're saying it would be a messy thing to put it into an already difficult situation.

- Q: Are you aware that in Alaska the cooperative efforts by fishermen have been directed to this kind of thing?
- A: Yes, I'm well aware of that, and one has to look at Alaska as somewhat differently than British Columbia, there is essentially four or five regions in Alaska five each one of which is bigger than all of British Columbia, so also you're looking at a less dense population you're looking at a fishery that is more terminal oriented where these kind of things can be practiced and that kind of a structure can exist but in British Columbia I have difficulty seeing that work in the same way. Again, I'm saying, at this time." (Pro.,p.6046)

Quote #5 Mr. J. Davis Cross-examination by B.C. Packers

Q: You did, however, make reference to the comparison with other industries in British Columbia, and I was wondering, in the extension of that comparison, whether you have given any thought to a comparison of the rights that go along with forest management licenses to timber rights to the ownership of the land; what is the connection, as you see it, in the formula which you propose, between the production of fish and the buying of fish to the processing stage, which requires the investments of tens of millions of dollars. There has to be some incentive to keep that there, and I was just wondering how that ties with your proposal?" (Pro.,p.6865) Quote #6 Native Brotherhood of British Columbia cross-examination by the Fisheries Association of British Columbia.

- Q: Yes, I exactly follow what you mean, so that in this system, this approach, it would, in some cases, supplement or replace enhancement, if you follow it ultimately through, it could replace the whole SEP program. It would solve certain social problems and economic problems, and you would still have to -- you'd still have and produce more fish for the free fishery, as I understand it.
- A: M'hmm.
- Q: In dealing with the fleet -- the free fishery, then you're not, I take it then that you're -- well, I should ask you rather than -- is that as far as adding an additional user group, such as a trap and weir aquaculture new user group, you're not advocating that at the present time, are you?
- A: We're advocating that there has to be an approach made as to the best way to catch that production, and to get the top dollar possible to pick up the cost of running those facilities, and there are several methods that could be used on that.
- Q: Okay, I understand that part, but you've got -say you have a private program set up to run those facilities, but then apart from that you have your traditional fishery, which is made up of your commercial fishery, and then you have your sport fishery and your --
- A: Conservation, the Indian fishery and then the rest.
- Q: Right, right. Now, you wouldn't advocate -- would you advocate adding into the free fishery a new user group?
- A: No, no, no we're not. What we're trying to do is to be fair to everybody, you know, and it's pretty hard to do that sometimes...(Pro.,p.14305)

Quote #7 The Fisheries Association of B.C. votes against Ocean Ranching in the Minister's Advisory Council.

1. MARICULTURE (continued from January 4, 1983 meeting)

Dalum

The issue is whether or not MAC supports Mariculture in principle. Agrees with Pearse's recommendation #1 on Mariculture (p.147) that DFO should promote the development of Mariculture on the Pacific Coast by providing technical support and a system of mariculture leases. At this point in time, we do not have to comment on policy regarding who should hold these leases.

Jones

Mariculture includes raising of shellfish plus rearing of salmon. We could make a statement supporting mariculture.

<u>Motion #16</u>

Moved by:	E. Wickham
Seconded by:	G. Dalum

THAT the Department should promote the development of mariculture on the Pacific Coast by providing technical support and a system of mariculture leases.

DISCUSSION ON MOTION #16

Dalum

Concerned about pen rearing salmon being included in mariculture due to the difficulties of marketing the product we already have (caught commercially). Support of mariculture should be confined to shellfish.

Penland

Mariculture should not preclude finish as in Europe and other countries, halibut, black cod, etc., are raised by mariculture and marketed. There also is a market for pen reared salmon there.

Cook

Mariculture includes existing projects.

Shaw

Motion indicates a support for shellfish; different motions will cover other areas.

Jones

The motion on mariculture is left very broad, as the definition is wide open. Leasing arrangements are a Provincial responsibility.

AMENDED MOTION #16

Moved by:	E.	Wickham
Seconded by:	G.	Dalum

THAT the Department should promote the development of shellfish mariculture on the Pacific Coast by providing technical support and a system of shellfish mariculture leases....

Nichol

Mariculture is a Provincial responsibility; now we are supporting Federal involvement. Real controls are needed to ensure that mariculture will not affect important stocks, detrimentally, (eg. massive black cod mariculture could wipe out salmon). However, was in support of shellfish mariculture.

Griswold

Provincial jurisdiction ends at low tide.

Jones

Clarify--that's an opinion. A court case is in progress on this issue.

Question was called, Motion #16 carried.

Motion 17

Moved by: Fred Penland Seconded by: P. Greene

THAT ocean ranching in B.C. coastal waters should only be undertaken by the Salmonid Enhancement Program.

DISCUSSION ON MOTION #17

Cook

Clarification of ocean ranching is needed. People living in an area should be able to make a living (from mariculture projects) to supplement their fishing income, especially if the stocks are depleted. Who is private?

Shaw

The motion indicates that ocean ranching (under SEP) is controlled by the Federal Government.

Cook

There should be a motion to the effect that local people should be able to get permits to harvest surplus enhanced stocks.

Lenic

Understands that the Nimpkish Band would like to harvest surplus stocks, after the commercial fisheries have access. Rivard

Clarification.

Because of the problem with unreliable SEP funding, some CEDP enhancement projects would like to receive enough stock to pay for administration of their projects. They are afraid ocean ranching will end up in private hands.

Cook

The Nimpkish Band is trying to restore levels of sockeye and chums through SEP. After the commercial, sports and Indian fishery has fished the run, the BAND could harvest the excess and everybody would benefit.

Lenic

By supporting the motion, would we be cutting out the project?

Rivard/Cook

N. The project, CEDP, is under the Salmonid Enhancement Program.

Newman

Opposed to ocean ranching because it is designed to do away with ocean fishing.

(Motion #17 was re-read)

Forand

We should not link ocean ranching and SEP together.

Dalum

Agrees. Ocean ranching implies private ownership of the resource, with exclusive rights to harvest, profit-oriented.

Nichol

The motion is vague and doesn't ease the concern of ocean ranching, which can have potentially dangerous effects on wild stock. The commercial fishery won't benefit because it will be shut down to allow for increased escapement.

Jones

Motion leaves door open for entrepreneurs to get involved in CEDP. As we have enough problems in the fishery, we should oppose ocean ranching at this time.

Rivard

Don't agree with privatization of ocean ranching because licenses/leases could become a commodity. However, under CEDP projects could contract to harvest stock to pay for administration costs--a mechanism is in place.

Penland

We should add to the motion "that all stocks surplus to spawning requirements be harvested by current users".

Greene

And by traditional methods.

Motion #18

Moved by: W. Peterson Seconded by: C. Cook

THAT Motion #17 be withdrawn

Carried

Dalum

We should develop a method of drafting resolutions.

MOTION #19

Moved by:	F.	Penland
Seconded by:	Ρ.	Greene

THAT ocean ranching in B.C. coastal waters only be undertaken by SEP and that all stocks surplus to spawning requirements be harvested by current users and that any surplus to spawning requirements be harvested by current users and that any surplus at the facility be harvested by the commercial, sports and native food fishery.

DISCUSSION ON MOTION #19

Wickham

Motion gives SEP ultimate authority, but the critical issue is "no privatization on harvesting" enhanced stock.

Cook

We are here to deal with Pearse Report. Do we believe that ocean ranching and mariculture are married. Pearse opens the door for large mariculture corporations.

Shaw

This is a matter for the Drafting Committee to consider.

Newman

Cannot support ocean ranching. We should find alternatives to what we don't like in Pearse...

Jones

Motion leaves door wide open. The intent is that we do not support ocean ranching...

Motion (19) #24

Moved by: P. Greene Seconded by: W. Peterson

If one defines ocean ranching as releasing young salmon to the open sea and harvesting them and not including pen rearing when salmon are confined until marketing, the MAC would then endorse the principle of ocean ranching. However, this support is conditional upon the following understanding:

- 1. THAT ocean ranching be undertaken only under the auspices of SEP;
- 2. THAT all production from the various operations are to be harvested by the normal and accustomed commercial, native and sports fisheries;

3. THAT the management of all fisheries are to be conducted in such a manner that to the maximum extent possible enhanced fish are harvested in conjunction with natural production and that harvesting at the facility racks be kept to an absolute minimum or should some level of facility be necessary, the monies obtained from this process should be returned to the SEP coffers to be used in operating various enhancement facilities.

DISCUSSION ON MOTION

Forand

Any monies accruing to SEP should be above and beyond the existing budget.

Dalum

Opposed to the principle of ocean ranching.

Jones

SEP is a form of ocean ranching. Refer to page 145 of Pearse Report....

Dalum

That's Pearse's view of what ocean ranching is. We should come up with our definition.

Newman

Speaks against motion. Opposed to ocean ranching and major hatcheries. There are other ways to enhance salmon.

Jones

No one should reap benefits from extra enhanced fish. But how do we address the issue.

(motion #24 was later withdrawn, and replaced with the following)

MOTION #25

Moved by: J. Nichol Seconded by: W. Peterson

THAT because ocean ranching has the connotation of exclusive right of harvest, the MAC oppose it.

Carried (1 abstention - E. Newman)

MOTION #26

Moved by: G. Dalum Seconded by: J. Lenic THAT MAC support Pearse Proposal for the development of Indian participation in the commercial industry as outlined in Chapter 12 of "TURNING THE TIDE" with exception of item 4 "To compete successfully in the proposal periodic re-issuing of licenses by competition."

AMENDMENT MOTION #27

Moved by:	F. Husoy
Seconded by:	J. Lenic

TO amend motion #24:

THAT DINA should supply funds to the Native Brotherhood of British Columbia to develop Indian Fishermen's Economic Development Program (IFEDP).

NOTE:

Amendment was brought about to give Indians more say and control in Indian Economic Development Program.

Jones, Newman, Cook and Rivard should draft motion and ask for support of MAC. Do we support all of Chapter 12 as it includes ocean ranching?....

Jones

The ocean ranching component of Chapter 12 - ocean ranching was defeated by MAC.

Newman

I agree....

Quote #8 The Fisheries Association of British Columbia Cross -examination by Mr. Arnet.

Commissioner Pearse: Has the association got a position with respect to the desirability of developing a system of aquacultural leases that would provide private parties with the right to enhance and develop resources in prescribed geographical areas?

A: I think our position right now is that we don't support it, and it's a very involved -- there are a number of reasons why we don't. We can't see how you can develop the resource and have enhancement on an ad hoc basis. You will have a situation where somebody is producing a fish which might be ruining a run elsewhere, and that's one of the largest problems of enhancement is wiping out our wild stocks." (Pro.,p.13259)

Mr. Safarik:

A: And we have to meet the competition. I mean, if we're selling salmon; the Americans and Russians are selling salmon. We have to compete in the same market that they're competing in.

- Q: It seems to me that the bottom line is really cost and that I would think that their costs would be sufficiently lower, that they will be very stiff competition for you. One of the main factors in cost is the catching cost in British Columbia because of the system of catching that we have fuel, costly vessels, long distances running up and down the coast, this kind of thing, and they're going increasingly to shore based catching facilities. Do you foresee this as a problem and possibly you may have to look at -- we may have to look at -- this kind of thing ourselves.
- A: Well, maybe. I think that we've already got the fleet, and we've already built it. We want to get rid of some of it. That you could, by reducing the fleet to an optimum level, that we could probably compete. I'm quite confident that we could compete with anybody in the world, and I think you also have to look at what point you want to, especially with the increasing volumes of salmon in the world, at what point you want to take your production. You want to catch your fish where it sort of maximizes its size and its quality and you get the best of both worlds. To say to involve in a big fishery in the Fraser River for instance, you wouldn't be able to harvest many species. The two largest runs in the Fraser River are the pink salmon and Fraser River pinks and the Adams River sockeye. Caught in the river they're worthless. Caught outside the river at a far enough point where they're in prime condition, they can compete with fish anywhere, and you can do that very cheaply with a vessel." (Pro.,p.13255)
- Mr. Safarik:

"And you have certain runs. There is the Stuart sockeye, which travel very quickly up the river, and so that, in the river they are in good shape, and these are the runs that are being hardest hit by illegal fishing. You don't see anybody really poaching Fraser River pinks and food fishery certainly isn't interested in catching a shingle, and the same thing with your Adams River sockeye which become very unsightly. But you have a problem on the Stuart sockeye run which could be made into a substantial run of fish, and it just gets hammered every year.

- Q: The reason that it gets hammered, of course, is that there is a market for these fish.
- A: That's because they're silver, that's correct.
- Q: So in other words there are quite a few areas where silver fish can still be caught in the river or in an estuary.
- A: Yes, sure." (Pro.,p.13257)

Quote #9 Historic cannery licenses made note of by the Nimpkish Band,

The history of the commercial fishery on the Nimpkish River is relevant to our study, for this fishery once carried under a "cannery license" type of "TURF", (see Chapter one) a fact noted by the Nimpkish Band:

"The Nimpkish River was the special fishing domain of the Alert Bay Cannery in the early days of the industry. In 1902 the Federal Government granted Spencer exclusive fishing rights in the tidal waters of the River and its vicinity for a 9 year period. From 1871 to 1920 it was Dominion Government Policy to grant exclusive fishing rights or cannery rights on certain B.C. waters in exchange for a yearly rental, conformity to the fishery law, and non-interference with the "Indian fishery privilege" (Lyons, 1969, Exhibit #156, p.30).

"The exclusive fishing privilege on the Nimpkish had not been renewed after 1919. Three years earlier, in 1916, the B.C. Packers Association had been told that it was considered a monopoly and that it would not be granted further cannery licenses. The refusal to renew the River licence may have been due to the company's monopoly status as well as the new fisheries policy that came into effect in 1920. In that year the Federal Government enacted a policy to grant unlimited fishing licenses to all British subjects of white race and to Indians, and to restrict the numbers of licenses granted to others (Carrothers, 1941).

Quote #10 Native brotherhood on cannery licenses.

Commissioner Pearse:

Could you explain that? You said that the Anderson Fishing Company had a ninetynine year lease?

Chief H. Assu: Yes.

Commissioner Pearse: Over what area?

Chief H. Assu: Area 13

Commissioner Pearse: And it was an exclusive right to take all the fish in Area 13?

Chief H. Assu: Yes, and they look after all the creeks. I guess he used to go up every creek, because he make his own map. On the map he tells you you cut this log or you cut another log in there, you know. I went out twice to work with them guys. You know, he looked at the map and make what we got to do in that river. He used to take us for three to four weeks out to go to all of the creeks and the rivers.

Commissioner Pearse: Do you think that was a good system?

Chief H. Assu: I think so. I think that's why they had a lot of fish in them days. (Pro. p. 4907)

Fisheries Association of British Columbia Perspectives.

- The modern fish-boat salmon fishery is far less efficient than an alternative (once existing) system involving a combination of vessels and traps and weirs. Therefore the modern system has been designed by overall government policy whose primary purpose is social (employment of large numbers of fishermen) rather than economic. Therefore these social policies act as an additional tax upon all industry participants. (Quote #1)
- 2) A "proprietary rights scheme" would be very difficult to set up given the number of qualified user groups who might be eligible for participation. (Quote #1)
- 3) It should be remembered that the existing scheme for the licensing of a given number of fishing vessels provides exclusive opportunities of harvest, (like

TURFs and other forms of property rights) and has been accompanied by effective allocation schemes. (Quote #1)

- New "enclosures of the commons" inevitably involve the infringement of somebody's personal liberty; therefore moves in this direction tend to focus public opinion upon equity issues. (Quote #2)
- 5) Were a "proprietary rights scheme" implemented as policy, the D.F.O. would be put in the position of allocating between the interception fleet (the "we" of the Fisheries Association) and the new rights holders. (Quote #3)
- 6) The business structure of the processing sector would have to undergo change to accommodate a shift to ocean ranching or fish traps. (Quote #4)
- 7) Due to economic pressures, policy initiatives to move to more terminal fisheries are an inevitable trend, but their effective introduction is a matter of timing. Such a move might not be good for such firms as B.C. Packers. (Quote #4)
- 8) Ocean ranching is already in place in the form of the Salmonid Enhancement Program; and harvest of these fish is accomplished through traditional fish boat harvest. (Quote #4)
- 9) There may come a time for ocean ranching, but only after research is undergone and the fish boat fleet is reduced. (Quote #4)
- To implement ocean ranching at this time would be a "messy" thing to put into an already "difficult" situation. Too many problems already exist in the industry. (Quote #4)
- 11) Investment security for the fish processor in the form of access to fish production must continue to exist should a shift to ranching occur; processing capital needs an "incentive" to stay. (Quote #5)
- 12) A new trap and weir aquaculture user could produce more fish for the present fishing fleet or "free fishery", but would mean adding another user group.(Quote #6)
- 13) Mariculture leasing arrangements are a Provincial responsibility. (Quote #7)
- 14) Allowing the door to go wide open for ocean ranching would allow new entrants such as entrepreneurs to get involved in the Community Economic Development Program of the Salmonid Enhancement Program. (Quote #7)
- 15) One of the largest problems with aquaculture leases is that they, like (common property) enhancement can wipe out wild stocks. (Quote #8)
- 16) By reducing the fleet to an optimum level, the B.C. fishing industry will be able to compete with the low production-related costs that are incurred by other nations that have shore-based catching facilities. (Quote #8)
- 17) We have already built a fleet of fish boats, and by just reducing it to an optimum level and then harvesting salmon at the optimum time when maximum growth can be balanced with maximum quality (relating to the distance from the

spawning grounds) the B.C. fishing industry will probably be able to compete with the increased volumes of salmon from other areas of the world. (Quote #8)

18) Some stocks of salmon like the Stuart run of Fraser River sockeye are silver bright even up the river, and thus because of their high economic value get hit hard by illegal up-river fishing. (Quote #8)

The Fisheries Association of British Columbia Self-Descriptive Material.

In its most comprehensive brief to the Commission on Pacific Fisheries Policy, the Fisheries Association of British Columbia described itself:

"The Fisheries Association of British Columbia and its predecessors, have represented British Columbia fishing and processing companies since 1892. At present, ten companies make up the membership of the Association and these companies represent a substantial proportion of fish harvesting and processing in the Province. The Association's activities cover the whole range on interest of the British Columbia fishing industry, including resource protection and development, labour contract negotiations, minimum fish price negotiations, employee welfare, product quality standards, research, public relations, product promotion and liaison between the various departments of government and the British Columbia fishing industry." (Exhibit #63, p.1)

In the Commission's proceedings, this association reflects upon the role of the fish processor in terms of the social well being of coastal communities:

"...generally speaking most of the processors here are a market for a distinguishable group of fishermen over a twelve month period. Most of the processors here have an investment. They have employees. They service, or are a large (?) of coastal communities. There are social and economic implications to their existence beyond the fact that they just buy fish." (Pro.,p.13182)

The marketing of salmon was a highly important activity for this association:

"I think we've always said we could sell whatever we could catch. The main problem is consistency. It costs big dollars to develop new markets for salmon products. It's high risk money, under the present circumstances. Even in face of Alaska and Japan catches, if we have a consistent return of particular species, I think in the long run we will be able to develop finite markets for these products, and we will be able to risk the dollars involved in developing those markets. What we cannot live with is the short run inconsistency....the market dies very quickly with products like salmon, when you can't supply the markets in given years." (Pro.,p.13253)

APPENDIX 5

Professionals.

Quote #1 Mr. Jack Davis' plan.

"The first main proposal that I'm making in the brief is that the operational side of the west coast salmon fishery be taken over by the province, using a crown corporation as the vehicle, I call it B.C. Salmon Development Corporation. That corporation would be responsible on the supply side for making the investment in enhancement. It would own the hatcheries and the spawning channels, on other words. It would also invest in stream improvements, lake fertilization and so on. As revenue, it would use principally a tax. This would be an excise tax on the sale of fish by the commercial fishery. (Pro.,p.6787)

"Looking ahead, say, 25 years, I would envisage a troll fleet, a sports fishery and a set of weirs at our river mouths. I would do away with our seine fleet entirely. I would phase it out. I would limit our gill net catching capacity also. And I would see our British Columbia Salmon Development Corporation ended up charging a landing fee on troll fish, a salt water sports fishing license and leasing out weirs to the highest bidder with each operating firm having a concession which acted, at most, five years at a time. (Brief #111, p.4)

Quote #2 Mr. Jack Davis on future management.

"This revival of weir fishing, and the progressive elimination of nets, would have several advantages. Fewer fish would be intercepted on the high seas. More would be caught as they returned to the watershed from whence they came. Then we would know, with greater certainty, what the success rate of our various salmon rearing programs was. We would have a better idea of benefits as opposed to costs. Also we would know that we were catching our own fish, not American fish. And our American friends in Washington and Alaska, if they followed a similar catch plan to our own, could say the same. International relations would be improved especially when it came to the harvesting of Pacific salmon and the dollars and cents arguments for a much larger enhancement effort would be more convincing than it is today." (Brief #111, p.6)

Quote #3 Mr. Jack Davis on the Native fishery in the future,

"Our native fishery would benefit considerably. Our Indian people would be catching many of their own fish. Local stream improvement plants would yield tangible results to those who looked after their own watersheds. Most of the increase in stock, resulting from improved spawning conditions, would return to their place of origin. The number of interceptions, offshore, would be reduced. This means that our native people would have a reasonable chance, not only to supply their own food needs, but also to market their own fish as well." (Brief #111, p.9)

Quote #4 Cross-examination of Mr. Jack Davis by Commissioner Pearse; (private-versus public issue).

A: "Well, I have views on them. Unless our harvesting is carried out by a terminal fishery totally, the mechanism for the private sector doing the whole job is very faulty. I can't see how the idea of the B.C. development corporation would work, unless there was a terminal fishery.

- Q: Because of the problem of intercepting the--
- A: Well, everyone else was taking part of the crop, and you were doing all the investing, or the private corporation, native corporation, whatever, was putting out all the money and only getting part of the harvest. But again, I really don't see private enterprize ever able to appropriate natural resource rights on our rivers and streams, of the comprehensive nature that's necessary to do the enhancement job. That's a problem, and the harvesting problem is, I think, insurmountable unless it's a terminal harvesting operation." (Pro.,p.6902-6903)

Quote #5 Mr. D. Wilson's plan.

"The basic structure required for a mobile hatchery could take the form of a floating raft similar to the typical small boat marina or floating fish-buying barges.....floating hatcheries would ideally be located at the head of mainland inlets. Access would most probably be limited to plane or boat. The candidate river or stream would have had historically a significant run of pink, coho, or chinook salmon readily fished in a single stock terminal fishery." (Exhibit #87, p.3)

Cross-examination of Mr. D. Wilson by Commissioner Pearse.

- Q: "I see, On page 9 of your brief, you discuss the ability of your proposal to provide alternative employment, and one of the suggestions that you make is that a commercial fisherman could trade in a vessel licence for an aquaculture permit?
- A: M'hmm
- Q: Do you see this as providing a scheme for retiring the traditional commercial fishing license out of the industry?
- A: I would think that would be one method, and I think the benefit of it would still provide the fishermen with a similar type of lifestyle, in the sense of he's still close to the water, he's producing fish, which is a little different, but there's still that, I don't know, quality of lifestyle available." (Pro.,p.5158-5159)

Quote #6 Cross-examination of Mr. D. Wilson by Commissioner Pearse.

A: "I have written an article which appeared in "The Sounder", which is a fisheries publication, which I can introduce as an exhibit. The title of the article is "Ocean ranching: Boon or Boondiggle", and it summarized the pros and cons to ocean ranching. What I'd like to emphasize is that its time has come to try out on an experimental basis, so that the people who don't think it's going to work can say once and for all it doesn't work, and the people who do think it is going to work can think the other way, that the ocean ranching will work on the B.C. coast. (Pro.,p.5147)

Quote #7 Mr. A.D. Deleuw's plan.

"I believe the commercial salmon fishing industry should be given the right to ocean ranch in small coastal inlets, in order to off-set monetary loses incurred on individual fishermen due to extensive fishing closures. Severe restrictions in both commercial and sport fishing are obviously a necessity, and no doubt more of these regulations will go into effect to halt the declining trend in salmon, especially the Chinook salmon stocks. In my opinion, however, closures are not the answer since I for one am in favour of maintaining the fishing industry as it exists today. I say this because members of my own family are commercial fishermen, I have fished commercially, and my close friends are commercial salmon fishermen.

In terms of ocean ranching, I would suggest the following; 1. Individuals or groups of licensed fishermen should be granted exclusive fishing rights in small marine bays or inlets. These inlets must contain an adequate source of fresh water and a stream from which a sufficient supply of salmon eggs can be obtained...... (Exhibit #41, p.8)

Quote #8 Deleeuw's plan on effects upon commercial fishing and upon wild stocks.

"The location of these reserves should not conflict with other salmon or fish stocks in the area, such that extensive harvests in the reserve cause detrimental decline in unenhanced stocks at other stocks. Closures would be implemented surrounding these fishing reserves to ensure minimal interception by competing fishermen of juvenile and adult salmon away from the fishing reserve." (Exhibit #41, p.10)

Quote #9 Cross-examination of Mr.A.D. Deleeuw by Commissioner Pearse; funding of fish production issue.

"If the fisherman does the producing and the maintenance and he gets his own gain, then the government will have money left over to put into research, medical or whatever kind. For instance in agriculture the government has agriculture stations all over Canada and it does very good research there at the moment, government as far as fisheries. One of our major complaints is lack of research in Fisheries.... (Pro.,p.1955))

Quote #10 Ms. Lyn Pinkerton's plan.

"I will argue for the importance of including a social science perspective on the problem which encompasses, besides the productivity and behaviour of fish or the forces of the marketplace, <u>fishermen</u>, many of whom live in small isolated communities, are subject to certain pressures from their peers, hold attitudes toward bureaucracies which regulate their occupations, and tend to hold certain definitions of the good life. Based on these considerations, alternative ways of moving toward a workable fisheries policy will be suggested. (Exhibit #79, p.6)

"It is essential for the system itself to be set up to motivate a long-term interest in the resource. Non-transferable quotas might indeed motivate the holder to husband the stock and harvest carefully in the most appropriate places and seasons, not allowing anyone else to overharvest the area. With transferability, however, all the savings in management costs and policy are automatically lost, because incentives can push the fisherman in another direction. The definition of the situation as entrepreneurial automatically incites attitudes of game, expansion, and aggressive competition. If the goal of a fisheries policy were to foster behaviour from the fishermen which will husband the resource and not lead to the competitive dissipation of rents, one possible way to accomplish this would be to deliberately define fishing as a privilege and award it to the groups most likely to exhibit this behaviour. It would be the task of an innovative fisheries policy to identify such fleets and groups, and award them the largest quotas. (Exhibit #79, p.10)

"By making quotas a commodity instead of a privilege or right, the new system would inherit a new set of problems equally detrimental as those which caused speculative transfers under the old limited entry system. In this case, an individual fisherman would not be motivated to overcapitalize his own operation, but he would have incentives to sell to the sector with the most capital. The motivation and ability of large capital to capture a large number of quotas on many fishing territories would be extremely powerful, and not necessarily conditioned by initial efficiency considerations. Let us consider what types of capital, and under what conditions, would be motivated to pay high prices to buy up fishing quotas. First, many capital interests would find buying fishing rights the easiest and least expensive method of removing political conflict which impedes their own development. (Exhibit #79, p.7)

Quote #11 Ms. Lyn Pinkerton on vulnerability of quotas to those with access to capital.

"A transferable quota system would favour those interests already established in the fishing industry or elsewhere with the greatest access to capital. Indeed, the February 1981 news "leak" that the B.C. Development Corporation has proposed to the provincial ministry of economic development and to the federal fisheries department a program whereby it will take over the salmon enhancement program and eventually the entire fishing industry suggests that this possibility is already being considered. (Merriman, 1981) Processing companies would be willing to pay well for the fishing quotas which they could afterwards subcontract on their own terms." (Exhibit #79, p.8)

Professionals Perspectives.

Economist (Jack Davis)

The B.C. salmon fishery should be taken over by the Provincial Government, which would set up a Salmon Development Corporation that would lease out weirs to the highest bidders. (Quote #1)

The proposed weir system would lead to less interception on the high seas, and good catches as the fish returned to the watersheds from whence they came; this would lead to better economic returns on enhancement investments, and hence a more convincing argument for more enhancement (which would benefit sportfishing interests and the now-reduced fleet). (Quote #2)

The Native fishery would benefit from the proposed weir system, as it would lead to a greater availability of fish for Indian food needs, and for marketing. (Quote #3)

Unless salmon harvesting relating to private sector enhancement is carried out by a terminal fishery totally, schemes such as those advanced by the BCDC could not work. (Quote #4)

Private enterprise would not be able to appropriate natural resource rights (on our rivers and streams) that were comprehensive enough in nature to enable the realization of profits. (Quote #4)

<u>Biologists</u>

Mobile hatcheries, to be used as ocean ranching sites, could be located near the heads of major coastal inlets; licensed commercial fishermen could trade in their A-licenses for these ranching rights. (Quote #5)

The time has come to experiment with ocean ranching. (Quote #6)

Individuals or groups of licensed fishermen should be given the right to ranch their own salmon run in small bays and inlets in order to offset monetary losses soon to be incurred due to extensive conservation-related closures on wild stocks. (Quote #7)

Closures on commercial fishing would have to be implemented surrounding the proposed ranching sites to ensure minimal interception by competing fishermen. (Quote #8)

The harvest of ocean-ranched salmon in prescribed areas would incur a minimum of detrimental effects on other stocks destined for unenhanced streams. (Quote #8)

Government money now going into fish production could be diverted into muchneeded research if fishermen could take over fish production; Canadian aquaculture is a good example of a resource industry organized in this way. (Quote #9)

<u>Sociologist</u>

Area-based quotas should be awarded to local groups who are committed to husbandry. To avoid incentives to sell to the sector with the most capital, these quotas should be made non-transferable. (Quote #10)

It is impossible to enforce regulations forbidding the sale of quotas to the corporate sector, and the result would be the favouring of interests in fundamental conflict with fishing. (Quote #10)

The 1981 proposal of the BCDC to take over SEP and eventually the whole fishing industry suggests that the possibilities for favouring interests already established in the industry is being considered; processing companies would be willing to pay well for fishing quotas that they could afterwards subcontract on their own terms to fishermen. (Quote #11)

APPENDIX 6

Governmental Organizations

Quote #1 B.C. Development Corporation first brief to the commission on Employment in Fishing.

The (fishing) industry is not as highly mechanized as others, and requires 37 employees per million dollars of sales.

1980 Industry Comparison Statistics

	Direct Employment	No. Employees Per \$1 million sales
Forestry	97,000	13.1
Mining	21,000	7.2
Agriculture and food	42,000	20.0
Fishing	18,500	37.0

(Exhibit #100, p.11)

Quote #2 BCDC second brief on concept potential,

"To date, the fishing industry has not been given the opportunity to direct their own enterprising efforts toward constructive resource development and management. The Development Corporation believes that many fishermen would welcome the opportunity to invest their energies and resources toward constructive development and management of a given area. Long term security of rights to the fishing resources to a given area offers great potential for a prosperous future. (Exhibit #100, p.14.)

Quote #3 BCDC First Brief on an Alternative Enhancement Strategy.

"...the only direct stimulus for future growth available to the enterprising fishermen has proven to be counterproductive, resulting in serious over-capitalization of the fleet. The Development Corporation has recognized an alternative enhancement strategy, which will provide an opportunity for users to invest and participate directly in the development of a new and prosperous future for the fishing industry. (Brief #100, p.16)

Quote #4 BCDC first brief on proposed licensing of fishermen within the new system.

"Specified fishing areas at the entrance to selected inlets could be assigned to a gillnetter to fish a given quota of salmon under authority of a license. This procedure could provide the licensed commercial fishermen exclusive rights to that fishing area on a yearly basis. An important condition of the license would include an obligation to fish every day during the migration period and provide accurate catch data to the DFO... (Brief #100, p.18)

Quote #5 BCDC first brief on concept as a means to resolve the mixed stock problem, and develop new fisheries.

"Preliminary selection of potential areas for development should be guided by the need to solve existing management problems. Such options might include certain areas which could offer the potential for developing totally new fisheries while minimizing conflicts with existing fisheries. Alternatively, the problems of excessive exploitation in complex mixed stock fisheries might be resolved.... (Brief #100, p.19)

Quote #6 BCDC First Brief on the Transfer of the BCBC Concept to Existing Fishery User Groups.

"If certain management units are chosen for development on behalf of a specified user-group, such as a Fishermen Association or a Native Indian Community, then the Corporation would negotiate terms for development, operation and assessment over an acceptable time period on a turn-key or cost plus basis." (Brief #100, p.22)

Quote #7 BCDC First Brief on the Transfer of the BCDC Concept to the Private Sector.

After the assessment, or demonstration period, the Corporation would have the option to sell their rights to the private sector, on the basis of a formula yet to be developed. If after the assessment period, a profitable operation is not realized, it is established that outside interception in the common fishery is capturing a greater share of the resource than initially anticipated, and if acceptable adjustments in stock allocations are not possible, then the project would revert to the Federal Government, on a cost recovery basis, or continue operating on a contract basis for enhancement of the common property fishery. (Brief #100.,p.24)

Quote #8 BCDC first brief on unwritten DFO ranching policies.

"The BCDC is seeking exemption from the unwritten Federal Fisheries policies which forbid private salmon hatchery release, and subsequent recapture of the returning salmon, or "sea ranching". A seven to ten year trial program by the Development Corporation is proposed, so as to determine the feasibility and acceptability of the concept. (Brief #100, p.29)

Quote #9 BCDC Second Brief on BCDC Concept Relation to Rural Stability.

"Since most Intensive Fisheries Management Units are likely to occur in isolated coastal regions of the Province they provide development benefits not unlike those of remote logging camps, except that the facilities would be more permanent....The presence of a nucleus of people working year-round in the enhancement facilities of a remote UFMU would provide impetus for permanent settlements to develop... (Brief #163. p.8)

Quote #10 BCDC second brief on possible Indian participation in the BCDC Concept Scheme.

"A particular variant of the regional development impact would be when an IFMU encompassed one or more established Indian communities. The operation of permanent enhancement facilities in such areas would provide new employment opportunities for Indians in a resource field where they are already involved in fishing activities. Such developments would help to stabilize these communities and diversify their income sources. At the same time, by providing on-site training and taking advantage of the Indians' local residency, the very real problem of attracting and holding a suitable labour force in a remote region would be largely overcome. (Brief #163, p.9)

Quote #11 BCDC second brief on effects upon movements of salmon fishermen within and outside the new BCDC concept area units.

"It can be expected that IFMU license holders would concentrate upon their own designated fisheries rather than compete in open access fisheries and in fact might well be prohibited from fishing in other areas as a condition of the IFMU license. Where the license holder was previously a member of the common property fishing fleet this would certainly remove him from that fleet. Should the licence holder be new entrant to the industry, his activities would at least not add to the fleet. At the same time, creating designated fisheries restricted only to the entire fleet would increase the pressure on the remaining common property fishing grounds. This, in turn, would discourage marginal vessels in the open access fleet.....as the their (UFMU's)increased, common property fishing would be restricted to fewer and fewer open access areas...eventually it would be possible to impose area/vessel licensing restrictions on those remaining grounds as well...(Brief #163, p.10)

Quote #12 BCDC Second Brief on B.C.D.C. Concept Targeting of Depressed Stocks.

"It would be preferable therefore to select a small to medium size complex with generally depressed stocks so that its exclusion from the common property fishery would create no undue hardship for the remainder of the fishing industry." (Brief #163, p.17)

Quote #13 Mr. Sandercock Cross-examination by Pearse (DFO on the viability of ranching).

"Let me say at the onset, I firmly believe that ocean ranching can work. After all, it's one of the basic premises that SEP is operating under, that you can produce juvenile fish and these will survive in the ocean environment, and you will get some return. Having said that, I seriously doubt that money can be made at it on the basis of private funds going in and benefitting from those adult fish that are produced. The private sector may well be critical of the way we operate facilities in the public sector, and that there are efficiencies that can be gained, but I think that it is worth pointing out that in the facilities that we're operating and all sorts of scale, small to large, there are only one or two that would pay their operating costs, would not pay their capital costs, based on the surplus fish taken at the rack. (Pro. p.11104)

Quote # 14 DFO on why ocean ranching is not acceptable as policy.

"With regard to ocean ranching, the present position of the department of fisheries is that there will be no commercial ocean ranching. We have turned it down consistently over the last couple years and that is still the position of the department. It is a recommendation contained in Pearse which I am sure MAC will be commenting on and we will be discussing it with them and out of that discussion a new policy or the old policy will remain in effect. So our position at the moment is that we do not support and indeed I was directly involved in the last three years in turning down proposals, both by the B.C. Development Corporation and various native bands who want to move in that direction. The answer is no. We've got enough problems now with the fishery, mixed stock management and so forth, to allow new investment in the industry, new capitalization in the industry, that would further complicate the mixed stock problem. I think we can all see that anyone who is going to invest in developing a hatchery and getting into ocean ranching is going to be looking for some guarantees that they are going to get a return on their investment. You know what that means and I know what that means. Fisheries and oceans is going to asked to close off areas, close down this fishery, provide a level of protection to that run coming back to that hatchery and I see it as one monumental headache that I am not looking forward to at all. I suggest it is one that we stay away from. That is my personal opinion on ocean ranching. (Applause) ("Mr. Shinners: Answers please. UFAWU convention delegates quiz regional director Wayne Shinners" The Fisherman Feb. 17, 1983.)

Quote #15 DFO on Ocean Ranching.

Mr. Faulkner:

- I think, Mr. Commissioner, if I may, to state the departmental policy and I'm sure A: you're aware, but on ocean ranching at the present time it is that ocean ranching is not acceptable because of management problems that are perceived in terms of this. I would like to restrict my comments to sort of the idea of ocean ranching if I may, from a biological point of view. Certainly the Salmonid Enhancement Program is a very large ocean ranching program. It has been described as this, as an ocean ranching program that is run by the government. What I am saying, in another way, might be interpreted as to produce fish from hatcheries or facilities and to harvest those fish when they return is within the realm of technical possibility, as indicated by the program that we have here. The problems that occur from the management point of view and questions that we face are who should have the rights to harvest fish that are produced by a private company or private individual. Certainly all the questions relating to that, in terms of access to and common property resource, et cetera, I don't feel qualified to deal with those at the present time, and from a management point of view, feel that these should be directed to the appropriate people at the appropriate time in the hearing.
- Q: Fine. Well, on that matter of the management problem, then does it follow from what you have said that you cannot visualize private sector or semi-private sector involvement in anywhere along the coast that would not have a severe impact on the commercial fisheries or other fisheries.
- A: I believe that there are areas where certainly that possibility should be looked at and there are areas where the impact in terms of management of the fisheries would be less in comparison than other areas. In other words, there are areas that could be examined where this proposal or proposals might be considered as to how they impact on the economics, et cetera. (Pro.,p.10995 -10996) (Mr. Faulkner was the Executive Director of the Salmonid Enhancement Program)

Quote #16 Cross-examination of Mr. Faulkner by Commissioner Pearse. (on fishermen in SEP).

A: Certainly that's one of the major aspects of it. I think, Mr. Commissioner, I would like to say that this aspect of enhancement from my point of view should be looked at. We see other areas where, for example, fishermen participate very actively in enhancement programs. They participate from the point of view of actually running hatcheries, of actually contributing a certain percentage of the income derived from their catch to operation of the hatcheries. In other words, they are actively involved, not only in the catching, but in the enhancement of fish. I think that, although it is somewhat different, we do have comparable projects that are going on. For example, our Community Economic Development projects, whereby we, in SEP, enter into a contract with the community or in this case we have nine Indian bands that we have entered into contracts with, to carry out certain enhancement projects. The difference there, of course, is that the funds are provided by the government and the funds are not obtained by taking a percentage calculation or a percentage of the individual fisherman's income from his catch. I think it should be looked at very closely.

- Q: Thank you. Just a couple of further questions. Do you get many overtures from fishermen, commercial fishermen, to participate in enhancement projects?
- A: We get overtures from commercial fishermen, yes. I didn't have a number. I can't assign a number. I might ask Dennis Deans if he has any idea of the number of requests related to commercial fishermen. Certainly we have requests from the public at large that exceed our capacity to meet in terms of participation and enhancement projects.
- Q: Well, that was my real final question, is that this commission has been told repeatedly by various environmental groups, public interest groups and indeed commercial fishermen that they want to get involved in enhancement; they want their local projects to go ahead and there are kinds of accusations about discrimination against our area or our part of the coast and so on, and I'm sure you have heard of all these concerns expressed. But I do have the impression, as you just implied, that the demand or the inclination to get involved even on a voluntary basis is far exceeding the capacity of your organization to cope with these requests.

A: Yes, that's correct. (Pro.,p.10998-10999) (Mr. Faulkner was the executive director of the salmonid enhancement program.)

Quote #17 DFO on proprietary rights in sea fisheries.

"There are no proprietary rights in sea fisheries. This factor has conditioned thinking in the development of the fishery resource. SEP is an initiative that governments have taken." (Brief #162, p.2)

Quote #18 Cross-Examination of Mr. Shinners by Commissioner Pearse. (DFO on area licensing for trollers in the Gulf of Georgia).

"The area licensing, the two troll system that we put in place I suppose is another form of area licensing. An attempt to get that large fleet out of the Gulf that normally spent the first month or so in the fishery wetting their lines as they say, and was responsible for a large removal of fish out of the Gulf. That was moved out and we had left from then in the Gulf of Georgia, the Strait, a small resident fleet much more capable of being managed from a fisheries point of view and as a result of the less competition, there were some direct benefits for the trollers left in the Gulf. I think those are -- That is the one area I guess that we have explored maybe more so than any other. Given that we can't reduce the numbers, how can we break the numbers up to make them of a manageable size in view of the various stocks or resources available in a particular area. (Pro.,p.9260)

Quote #19 Cross-examination of Shinners by Commissioner Pearse; area licensing and salmon management

A: Well, the whole business of mixed stock fisheries is one we have right now. I'm not sure that it would be complicated anymore by area licensing. Indeed area licensing

might be a beneficial aspect of doing a better job of sorting out these mixed stocks. At the moment, in the high seas fisheries, mixed stock interception fishery, it's difficult to know when you're fishing Johnstone Strait, just what runs you are indeed affecting. There is a great deal of pressure on the department when a particular run is coming back very forcefully and indeed they might even be enhancing fish. Under these circumstances the department is under tremendous pressure to allow a fishery to harvest these larger runs, but at the same time we may be seriously jeopardizing some of the weak runs that are mixing in with those. Area licencing would tend to make the fishery more of a terminal type fishery where, when you carry out your fishery you would have a better handle on just what runs you would be affecting. So it would actually be a benefit rather than a negative factor in sorting out the mixed stock problem. (Pro.,p.9261-9262) Wayne Shinners was the Director General, Department of Fisheries and Oceans, Pacific Region

Quote #20 DFO on ocean ranching in the Pacific Mariner,

"...one economic study looked at the Robertson Creek hatchery, near Port Alberni, as a model situation for private ocean ranching. In recent years, this hatchery has experienced very large returns as a result of the low fishery interception rate of its stocks. After brood stock was taken, the excess fish were sold at the highest possible market value. The profit earned on those fish, because of their inferior market quality, was not considered sufficient to support the cost of the facility had it been an ocean ranch. Ocean ranches now in operation in Oregon. Although still at the experimental stage, they have yet to make a profit. The large corporations operating the ranches, faced with losses, now have a justifiable motive to lobby for fishery restrictions in order to increase ranch returns and enable them to stay in business. Furthermore, Oregon's ocean ranches were permitted to go ahead only in areas where their stocks could be managed in relative isolation from stocks of important commercial value. This involves areas south of the Columbia River, with enhancement limited to unused chum and coho stocks. Finding such areas in B.C. would be difficult due to the complex coastline. It would also lead to competition between government and private interests for prime enhancement locations.

"In Alaska, the experience with private ocean ranching involves fishermen's cooperatives which operate the enhancement facilities to improve commercial and sport fishing. This system was only possible with area licensing of fishermen so that participating fishermen would benefit from the activities. Area licencing is not part of salmon management programs in B.C. Each state or province on the Pacific coast has a different approach to ocean ranching; each government believes that it is on the right track. The approach depends upon regional circumstances and the will of the various groups involved with the salmonid resource. Washington and B.C. are the only two areas where there is no private ocean ranching. Canada's policy on private ocean ranching does not rule out the possibility of experimental ocean ranching somewhere down the line, but that proposal will have to address the question of the common property nature of the resource and involve, in the planning stages, all of those who might be affected. (Ocean Ranching Department of Fisheries by Mike Youds in Pacific Mariner, Spring, 1983.)

Quote #21 DFO on managing for the Indian food fishery.

"The Department of Fisheries and Oceans" has established the following procedures for allocation fo the fish resource: 1) for conservation (to meet escapement needs); 2) to meet Native food fish needs; and 3) for recreational/commercial fisheries. However, the order of salmon harvesting tends to be commercial, recreational, Native food fish, then escapement as fish migrate from the ocean to the spawning grounds - the reverse order of the allocation priorities. Additionally, commercial and marine recreational fisheries generally occur in areas where there is substantial mixing of fish from many stocks and species. In such circumstances particular stocks can be accidentally overfished, leaving few survivors to sustain both a Native fishery, which may depend totally upon it, and the primary needs of reproduction; either or both of these priority goals may then be missed. Another difficulty in managing the Native food fishery is that there are no agreed catch targets for particular Native bands or in total. The manager therefore must estimate the food fish needs and try to pass that number of fish plus those required for reproduction through both the commercial and recreational fisheries. If the Native needs are under-estimated then the Natives and/or escapement must again go short. If the needs are over-estimated undesirable surplus escapements may result. (Exhibit #167. p.5-6)

Governmental Organizations Perspectives.

British Columbia Development Corporation

Employment in the B.C. fishing industry is much higher in than in other B.C. industries. (Quote #1)

The long term security of rights to the fishing resources of a given area offers great potential for a prosperous future for fishermen. (Quote #2)

The B.C.D.C.'s enhancement concept offers an opportunity for fishermen to invest in productive rather than counter-productive economic activity. (Quote #3)

Within the B.C.D.C.'s area concept, fishermen could be licensed to fish for a given quota of fish under an annual license. (Quote ##4)

The B.C.D.C. area management concept could be applied to resolving mixed stock management problems, and could even lead to the development of totally new fisheries. (Quote #5)

Management units developed by the B.C.D.C. on behalf of specific fishery user groups could eventually be turned over to these user groups. (Quote #6)

After a demonstration period, management units developed by the B.C.D.C. could be sold to the private sector, or revert to the Federal Government. (Quote #7)

The B.C.D.C. is seeking exemption from the unwritten Federal Fisheries policies, which forbid private salmon hatchery releases, and subsequent recapture of the returning salmon, or "sea ranching". (Quote #8)

In remote areas, the B.C.D.C.'s proposed scheme would aid regional development and rural stability. (Quote #9)

Indian communities would benefit from the development of BCDC's proposed scheme. (Quote #10)

Fishermen involved in the B.C.D.C. scheme might well be prohibited from fishing in other areas, and those outside the scheme would be restricted to fewer areas;

eventually area/licensing restrictions would be imposed on all of the remaining salmon fishing grounds. (Quote #11)

The B.C.D.C.'s selected sites would preferably target smaller, depressed stocks and thus cause no undue hardship to the present participants in the common Property fisheries, as these too-large and too-effective fleets can not presently be allowed to fish such small, vulnerable runs of salmon. (Quote #12)

Department of Fisheries and Oceans

The B.C.D.C. proposal was not acceptable to government because it was not commercially viable. Ocean ranching can work if operated by government, but not on the basis of private funds being able to realize profits from the fish that are produced. (Quote #13)

As ocean ranching would be marginally profitable in B.C., it would create pressure on the government to gradually allocate more of the resource away from the high seas harvesters of salmon. Ocean ranching is also not acceptable DFO policy because of associated management problems, especially those relating to the mixed stock fisheries. (Quote #14)

SEP itself is a very large ocean ranching program. There are areas of the coast were private sector involvement in salmon enhancement would have a less severe impact on fisheries management than in other areas. (Quote #15)

Many enhancement projects are very similar to the concept of private ocean ranching, with the important difference that funds are provided by government rather than by the returning fish; the demand by fishermen to get involved in such projects far exceeds the capacity of SEP to cope with these requests. (Quote #16)

There are no proprietary rights in sea fisheries. (Quote #17)

Area licensing of trollers in the Gulf of Georgia has left a small resident fleet much more capable of being managed from a "fisheries point of view". Given that the numbers of boats can not be reduced, their numbers can be broken up to make them a manageable size in view of the salmon available in a given area. (Quote #18)

Area licensing would probably lead to better management of mixed stocks. (Quote #19)

Canada's policy on ocean ranching does not rule out the option of experimentation in the future, but such proposals will have to address the common property nature of the resource. Future proposals will also have to include, in the planning stages, all of those that might be affected. (Quote #20)

Heavy mixed stock fisheries often leads to accidental over-fishing of particular stocks; this leads to problems for both the primary needs of conservation, and the provision of salmon for the Native fishery. (This is because the Native fisheries generally occur in areas near the spawning grounds). (Quote #21)
APPENDIX 7

Aquaculturalists

Quote #1 Tidal Rush Marine Farms Ltd. on salmon farmers as salmon ranchers.

Mr. B. Hope cross-examination by Rossander

" I think the two could go together very well. I think there's a great many possibilities in ocean ranching. They have to be looked at carefully but -- and controlled carefully, but I think fish farmers could do very well in both, if they were located in a location where there was the available water supply and the recapture facilities. It strikes me ultimately that the fish farmers could probably do a good job of ranching and a good job of the controlling, in that the better smolt you release, the better likelihood of a returning fish ..."(Pro. p. 4763)

Quote #2 Tidal Rush Marine Farms Ltd.'s plan,

"....if salmon ranching is to be introduced, it should be coupled with stream enhancement and that individual sites be limited in size. If we were to allow 20 private ranches to release 1,000,000 fish each, for example, and required preservation and enhancement of habitat as an integral part of operation, the questions of genetic integrity and estuary control could be more readily addressed... (Exhibit #164, p.1)

"It may be possible to entice some commercial fishermen to surrender licenses in exchange for opportunities in ranching, comparable to the case of Norwegian fishermen switching to farming. Permitting this type of private sector involvement in salmonid enhancement would complement the federal SEP program in a politically and economically attractive fashion." (Exhibit #164. p.3)

Quote #3 Tidal Rush Marine Farms Ltd. on biological advantages of salmon ranching.

"The overwhelming success of the SEP hatchery program has created an imbalance which threatens the mixed stock resource. If small scale ranching were allowed, with local broodstock, coupled with stream enhancement, then the problems with the genetic integrity and estuary carrying capacity would be obliviated." (Exhibit #164, p.1)

Quote #4 Regional Aquacultural Association's plan.

"We ...propose ocean ranching through non-profit associations as a productive way of enhancement of salmon with royalties collected to be used for non-profit enhancement under control of the fishermen." (Supplemental Document #25, p.1)

"Regional Aquaculture, a non-profit association was formed under the society Act in 1980 and responds to a need of commercial fishermen, native fishermen and sports fishermen for a united productive involvement in salmonid culture...directors of the association presently fill positions in the following fishing associations and fish culture oriented organizations; Pacific Trollers Association. West Coast Fishculture Ltd., Thornton Creek Enhancement Society, Southern Southeast Regional Aquaculture Association, Alaska." (Ibid.,p.1) "We suggest paying contractors, community development and native projects on piece-work or a per fish producing basis and "contracting out" will become very efficient and less costly." (Ibid.,p.7)

"It is our suggestion that fishermen, native or non-native should be given aid and an opportunity to organize and develop. Non-profit organizations and commercial and sport fishermen co-operatives deserve this first opportunity to enter the private sector of aquaculture by way of ocean ranching. The fishermen feel that if large corporations gain control of this sector of the industry, their way of making a living by fishing will be threatened." (Ibid, p.10)

Quote #5 Regional Aquaculture Association on DFO s attitude to ocean ranching.

"No other government department as Fisheries and Oceans has concerned itself so extensively in the labour intensive role of growing biological products, and the control is so absolute that competition in the fish culture rearing business from capable organizations is alienated." (Supplemental Document #25,p.7)

"Most opposition to ocean ranching has been experienced from fisheries officials due to their refusal to cope with the management problems, this attitude needs to be changed. It is interesting that the DFO who has for the past 10 years been in the business of ocean ranching is so opposed to some competition, and so reluctant to give up control." (Ibid.,p.12)

Quote #6 Regional Aquacultural Association on Alaskan version of ocean ranching.

"Legislation passed a resolution to allow private non-profit ocean ranching in 1973. As the regional districts in Alaska had now become privileged fishing grounds for limited entry permit holders the way was clear for fishermen's associations to develop aquaculture in their particular regions." (Supplemental Document # ,p.3)

"The most concentrated harvesting occurs in enclosed bays away from the main fishery management areas to avoid depleting intermingling natural stocks. Hatchery sites are presently designed and constructed for the remote areas where a new stock has been established....to date Pink and Coho adults have returned at a better rate than ever recorded in Alaska's history of artificial and wild propagation." (Ibid.,p.7)

Aquaculturalists Perspectives.

Tidal Rush Marine Farms.

Salmon farming lends itself to salmon ranching. (Quote #1)

Salmon ranching should be small scale, and some commercial fishermen may be enticed to surrender their licenses for opportunities in ranching. (Quote #1)

Small scale salmon ranching would improve the management problems (mixed stocks fisheries) that have grown out of the SEP program. (Quote #3)

Regional Aquacultural Association

Non-profit ocean ranching under the control of fishermen should be encouraged to develop, and deserve the first opportunity to enter the private sector of ocean ranching. (Quote #4)

The DFO has been ranching for 10 years, but is opposed to private ocean ranching, for it is reluctant to give up control of this activity. (Quote #5)

Ocean ranching in Alaska² is carried on by fishermen who hold limited entry permits to fish within areas; it has proved biologically and economically viable in Alaska. (Quote #6)

APPENDIX 8

Opinions of the Participants Regarding TURFs.

Of the 151 registered participants in the Commission's hearings, 53 spoke to some form of TURF.

Indian territorial fishing rights and the concept of "ocean ranching" were probably the most talked-about forms. The following is a list, in chronological order, of the presentations of the participants who spoke to TURF issues.

First round of Hearings, April 8, 1981 to July 31, 1981.

Participant	TURF issue/form	<u>Stand</u>
R. Arnet (individual fisherman)	ranching leases run by grandfathered-in former A-license holders	pro
Nuu-chah-nulth Tribal Council (Indian organization)	Local area licensing for Native-A and other A licensed fishermen	pro
	Indian food fishing	рго
A. Gallaugher (individual processor)	salmon ranching	pro
D.W. Ellis (individual fisherman)	A grandfathering-in of an area tenure system for all present salmon users, including settlement of Indian land claim in the process; such a system would include quotas on intercepted stocks as well as management and harvest of wild and ranched stocks	s pro
	SEP ranching	pro
Northern Trollers Association (fishermen's organizations)	SEP ranching	con
United Fisherman's and Allied Workers Union (UFAWU) (fishermen's organization)	Ocean Ranching (as proposed by the B.C. Development Corp. in 1980)	con
Prince Rupert Fishing Vessel Owners Association (fishermen's organization)	Indian food fisheries	pro

B.C. Wildlife Federation (sportfishermen's organization)	Indian by-law fisheries	con
A. Kaario (individual fisherman)	historic salmon traps	con
(,	area licensing	con
A.D. de Leeuw (professional)	ocean ranching by fishermen	pro
H. and L. Doerksen (individual fishermen)	Indian food ranching	pro
, , ,	Ocean ranching	
	(as proposed by	
	B.C.D.C. 1980)	con
A.H. Meadows	Ocean ranching	
(individual fishermen)	(as proposed by	
	B.C.D.C. in 1980)	con
Amalgamated Conservation	Ocean ranching	
Society	(as proposed by	
organization)	B.C.D.C. III 1980)	con
The Steelhead Society of B.C. (sportfishermen's	SEP ranching	pro
organization)	Upriver weir	
	weir fishery	
	for Indians and	
	commercial fishermen	pro
	Ocean ranching,	
	Oregon model	pro
	Ocean ranching,	
	Alaska model	pro
Kitamaat Village Council	Allocated fishing areas	
(Indian organization)	and their watersheds	
	to Indians	pro
Gitksan-Carrier Tribal		
Council (Indian approximation)	I raditional Indian	
(indian organization)	an basis of aboriginal	
	righte	DF 0
	115110	pro
Fish Incorporated (processor)	Area licensing	pro

Fisheries Association of B.C. (processor's	Historic traps	neutral
organization)	Proprietary rights programme	con
	Area licensing	con
D. Williams (individual fisherman)	Large private enterprise ocean ranching	con
D. Dawson (individual fisherman)	Area licensing	pro
T.G. Hodgson (individual fisherman)	Historic traps (if conceptualized as public rights in common)	pro
The Pacific Gillnetters Association		
(fisherman's association)	Area licensing with three large areas	pro
	Native food fishing	pro
	Sale of Native food fish	con
Oweekeno Indian Band (Indian organization)	Establishment in law of aboriginal fishing rights within the Oweekeno Nation tribal territory	pro
E. Pinkerton (professional)	Ocean ranching (as defined by the B.C.D.C. in 1980)	con
	Non-transferable, area-based quotas awarded to local groups committed to husbandry	pro
Tidal Rush Marine Farms (individual aquaculturalist)	ocean ranching by fish farmers	pro
Campbell River, Cape Mudge,	Ocean ranching	con
of the Native Brotherhood of B.C. (The Letwiltouch, Komoux and Kwalikum Beople	Open access to all Native fishermen within their traditional areas	nro
(Indian organization)	"District fishing"	pro

	Historic cannery licenses to areas re-institution	con
United Fisherman's and Allied Workers Union (fishermen's organization) (2nd brief)	Commercialization of Indian food fishery	con
Gulf Trollers Association (fishermen's organization)	Area licencing for trolling in the Gulf of Georgia	pro
Monenco Consultants Ltd. (professional)	Ocean ranching by grandfathered-in former A-license holders	pro
Kwakiutl District Council (Indian organization)	Traditional Kwakiutl fishing rights to areas	pro
Kwakiutl Band (Indian organization)	Exclusive band fishing rights within a five mile radius of river mouths given by DFO. Re-establishment of individual fishing rights within tribal territory	pro
British Columbia Packers Limited (individual processor)	Re-institution of historic traps concept if a change in business structure	pro
	in business structure	pro
	Ocean ranching within present fisheries	con
	Native food fishery	pro
	Commercialization of Native fishery	con
L. Straight (individual	SEP ranching	pro
sportfishermen)	Trap and weir fisheries at river mouths	pro

British Columbia Development Corporation (government organization)	Intensive salmon management within area units; harvest of wild and enhanced fish by most cost-effective means. Such a project would be developed by a subsidiary of the B.C.D.C. on behalf of a specific user group, or independently for future sale to the private sector	pro
Vancouver Shell Fish and Fish Co. Ltd. (individual processor) Progressive Conservative	Private monopolization of any part of the coastline	con
C.W. Ross (individual fisherman)	Ocean ranching as a rural development tool	pro
Squamish Indian Band (Indian organization)	Band by-law fishery	pro
B.C. Wildlife Federation (sportfishermen's organization) (2nd brief)	Band by-law fisheries	con
The Honourable Jack Davis (professional individual)	A Provincial Crown Corporation would lease out river mouth weir concessions for periods of up to 5 years to the highest bidders	pro
	Sale of Indian fishery fish	pro
	Ocean ranching (as defined by the B.C.D.C.)	con
A. Reder (individual fisherman)	SEP Community Programs where communities would be paid according to the fry they produced	pro
Victoria Charter Boat Association) (sportfishermen's organization)	Trap fishery in the future	pro

Bella Coola Band Council (Indian organization)	Native title and aboriginal rights and ownership to the tribal territorial boundaries of the Bella Coola	pro
	Band enhancement and river-mouth harvest of the eight rivers within the territory in conjunction with the D.F.O.	pro
	Ocean ranching on a large scale by companies	con
Masset Band Council (Indian organization)	Yakoun and Dinan River maricultural programs with first option by local Indian band	pro
Duines Dunest Fishensen's		
Co-operative Association (fisherman's	Indian food fishery	pro
organization)	Commercialization of Native food fishery	con
Nishga Tribal Council (Indian organization)	Nishga food fishery	pro
	Area licensing	pro
	Nishga fisheries territorial management claim through the conferring of jurisdictional	
	authority	pro
	SEP ranching	con
	Salmon ranching (as proposed by the B.C.D.C.)	con
Union of B.C. Indian Chiefs (Indian organization)	Aboriginal rights by the 81 bands on the Fraser River to to harvest salmon by traditional methods and sell them	рго
	Co-management of Indian fishing rights in watershed areas and in offshore waters of traditional tribal	

territories with the government of Canada	pro
Band by-law fisheries	pro
Ocean ranching in form of privatization of salmon streams	con
Native food fishery at present levels	pro
Native food fishery at expanded levels	con
Area licensing	con
Settlement of land claims by division of fish stocks presently caught by non- native fishermen	con
Area licensing for gulf trollers	con
Ocean ranching projects near isolated Native villages	pro
Aboriginal fishing rights to tribal areas	pro
Band by-law fisheries	pro
Indian food fisheries	pro
SEP Community Development Projects; 9 have contracts with SEP, 100 communities interested	pro
Area licensing at present	con
Area licensing within the context of an expanded Community Economic Development Program of SEP	рго
Ocean ranching as proposed by Jack Davis	con

and Allied Workers Union (UFAWU) (fisherman's organization) (3rd brief)

United Fisherman's

Central Native Fishermen's Cooperative (fisherman's organization)

Native Brotherhood of British Columbia (Indian organization)

	Ocean ranching as proposed by B.C.D.C.	con
Department of Fisheries and Oceans (government organization)	Area licensing Area licensing for trollers	pro
	in the Gulf of Georgia	pro
Second round of Hearings, Decen	mber 14, 1981 to April 29, 1981.	
B.C. Wildlife Federation (sportfishermen's organization) (3rd brief)	Band by-law fisheries	cọn
Nimpkish Indian Band (Indian organization)	Declaration of Sovereignty by the Nimpkish people over the Nimpkish River watershed	pro
· · ·	Indian rights to a defined fishing area in the legal form of Native private fisheries already in existence in 1189 (Magna Carta)	pro ·
	On "grandfathering in" any allocation proposal (i.e. areas rights) based on catches in recent years	con
	Historic exclusive cannery licenses (Nimpkish River)	neutral
	Historic private hatcheries at Nimpkish and Namu	neutral
	Tribal co-management, of 50% of returning salmon as practiced in Washington State treaty tribes	nro
	State floary filoes	PIO

ISSUE HEARINGS

Department of Fisheries and Oceans (government organization) (2nd brief)

B.C. Development Corporation (Provincial organization) (2nd brief)

Tidal Rush Marine Farms Ltd. (individual aquaculturalist) (second brief)

Pacific Trollers Association (fishermen's organization)

Department of Fisheries and Oceans (government organization) (3rd brief)

B.C. Wildlife Federation (sportfishermen's organization) (4th brief) SEP Salmon ranching

neutral

Intensive Fish Management Units (IFMU) conveyed by government license, with management activities by license holder subject to general guidelines set by government; harvest of returning wild or ranched salmon by the most costeffective means, with eventual expansion of these units to other coastal areas until all of the common property fisheries were phased out, and full economic rationalization of the industry was realized

Small scale salmon ranching coupled with stream enhancement

Private enterprise in fish production if in a nonprofit basis

Policy of first allocation priority for Native fisheries after conservation originated in a letter by Honourable Jack Davis, later to be confirmed by LeBlanc

Native band by-law fisheries

pro

pro

pro

neutral

con

Pacific Trollers (fishermen's organization) (2nd brief)

D. Dawson (individual fisherman)

Fisheries Association of B.C. (individual processor) (2nd brief)

D.W. Ellis (individual fisherman) (2nd draft)

T. Hodgson (individual fisherman) (2nd brief) Aboriginal right to harvest salmon for food, second only to conservation in allocation pro Native salmon enhancement for their own food fish pro Native salmon enhancement for sale of fish (without specific regulations laid out for this sale) pro Area licensing pro

Private enhancement and development of prescribed coastal areas

Defined areas, especially those overlaying presently under-utilized stocks. within which their would be development and harvest of wild, enhanced, and ranched stocks under 5 year management plans; legislated social policies would keep the leases small; they would be grandfathered-in to A-license holders and then made saleable and transferable, allowing a vehicle for the settlement of Indian land claims without social displacement.

Resurrection of weir fisheries

con

pro

pro

Native Brotherhood of B.C. (Indian organization) (2nd brief)

The Regional Aquaculture Association (aquaculturalist) Allocation of fish returning to Native SEP Community Economic Development Program Projects to that project to make it self-supporting; retention of control by DFO.

Ocean ranching. Alaska model

pro

рго