When the Fishing's Gone:

Understanding how fisheries management affects the informal economy and social capital in the Nuxalk Nation

by

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Abstract

In the field of resource management, the importance of understanding how *policy* affects *people* is now recognized as a fundamental aspect of sustainable management. This perspective underlies this study of how management policies within the British Columbia commercial fisheries have affected the Nuxalk Nation, located on the central coast of British Columbia. Though their contemporary participation in the commercial fisheries has been extensive, this community has witnessed a substantial decline in participation, roughly a 95% decline since 1953. Today about 12 community members hold commercial fishing licenses.

Findings suggest that the virtual collapse of the local commercial fishery extends well beyond the visible losses such as employment, fishing boats, and related income. At a social and cultural level, the Nuxalkmc have witnessed changes in their ability to access and exchange traditional resources, engage in social and kinship networks, and perform acts of generalized reciprocity so important to social capital and resilience elsewhere. This study examines these dimensions by using theories of social capital and the informal economy as tools for unearthing the less visible and unaccounted losses in the Nuxalk Nation. Findings call for a reconsideration of the priority paid to direct versus indirect losses (wherein the latter may be more consequential than the former), and where the cultural and social consequences in particular may constitute what is elsewhere referred to as a 'cascading' loss.

This study employs two primary research methods. First, we undertake a comprehensive review of relevant fisheries policies and historic information to evaluate the distinction between commercial and food fisheries. Second, semi-structured interviews with forty-one members of the Nuxalk Nation were conducted gather local articulations about social, cultural and economic changes associated with decreased involvement in the commercial fisheries.

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"We're here on Mother Earth on a journey and Creator's the one who's looking after us. Creator's the one that's showing us-- and keeps us, reminds us of who we are and where we are, where we come from and why we're here (Nuxalkmc Fisherman)."

For Keith, Mom and Dad

Chapter 1: Introduction

Introduction

In the field of resource management, the importance of understanding how *policy* affects *people* is now recognized as a fundamental aspect of sustainable management. This perspective underlies this study of how management policies within the British Columbia commercial fisheries have affected the Nuxalk Nation. Located on the central coast of British Columbia, this First Nation community has relied on a diversity of fish resources for sustenance, cultural, and economic purposes since time immemorial. In more recent history, they have participated in contemporary fisheries to the extent that commercial fishing has become a dominant source of participation in the formal economy.

Since 1953 the Nuxalkmc[1] have experienced a decline in commercial licenses by approximately 95 percent. Today roughly 12 community members hold commercial fishing licenses.[2] The economic implications of management trends associated with this decline in licenses have been quite perverse with entrenched dependence on government assistance and consistently high unemployment rates upwards of 80 percent. The virtual collapse of the local commercial fishery extends well beyond the forgone economic opportunities, castaway fishing boats, and dissolving income. At a social and cultural level, the Nuxalkmc have witnessed changes in their ability to access

[1] The people of Nuxalk ancestry refer to themselves as *Nuxalkmc.*
[2] The majority of these licenses are for salmon, in addition to several for herring.

and exchange traditional[3] resources, engage in social and kinship networks, and perform acts of generalized reciprocity so important to social capital (social networks and the trust and reciprocity that arise from them (Putnam 2000:19)) and resilience elsewhere. In short, the decline of the commercial fisheries has disturbed social, cultural, and economic facets of community life. This study investigates these dimensions by using theories of social capital and the informal economy as tools for unearthing the less visible and unaccounted losses to the Nuxalk Nation. Its findings call for a reconsideration of the priority paid to direct versus indirect losses (wherein the latter may be more consequential than the former), and where the cultural and social consequences in particular may constitute what is elsewhere referred to as a 'cascading' loss.

The propensity for fisheries policies to affect resource-based communities has been the topic of much discussion in the literature (Cf. Pinkerton 1989; Matthews 1993; Davis 1996; Newell and Ommer 1999; Apostle, McKay and Mikalsen 2002). Jentoft (2000), for example, captures the social complexities involved in fisheries management. In response to the past failures of fisheries policies, he suggests that if decision-makers acknowledged the notion that viable fisheries depended on viable fishing communities, they would:

> . . . be careful not to damage the social structure and culture of fisheries communities . . . avoid management decisions that threaten the social fabric of fisheries communities, [and] designs that make communities disintegrate and become more stratified. Instead, managers would adopt designs that would

[3] While I recognize that practices designated 'traditional' can be so assigned for political purposes and that some traditions are ephemera, others are enduring. Salmon, for example, is integral to Nuxalkmc tradition historically and presently.

> potentially restore and reinforce the solidarity and cultural qualities of fishing communities. . . . they would install both internal and external mechanisms of the management system that encourage cooperation, build networks, and improve trust within and among local communities (P. 54).

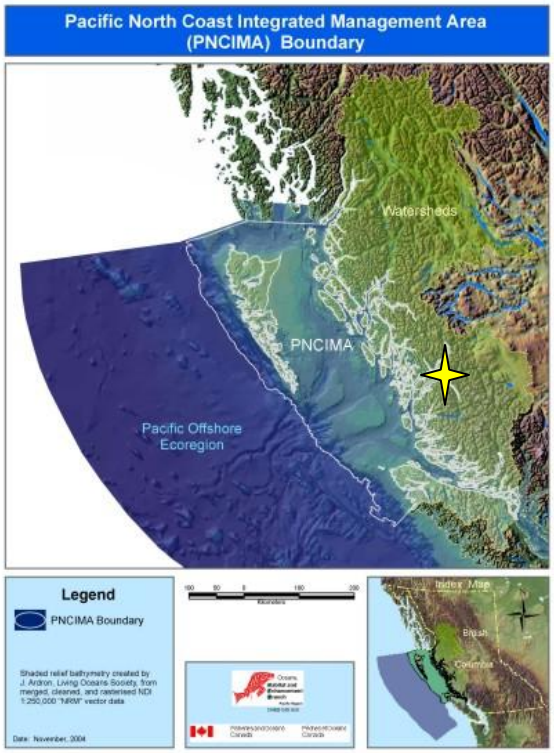
These types of social objectives for natural resource management are momentous, but are exactly the type of considerations being incorporated in Canada's approach to oceans management. The shifting paradigm from single-species management to an interdisciplinary, integrated approach became legally enshrined with the enactment of Canada's Oceans Act in 1996, and which later came into effect in 1997. The *Act* establishes Canadian sovereignty and regulatory authority over the 24 nautical mile contiguous zone and the 200 mile exclusive economic zone (Fisheries and Oceans 2002). It also legally establishes three core principles for oceans management that speak directly to social dimensions; namely that management is based on sustainable development, integrated management and, the precautionary approach. Within each of these guiding principles is a direct focus on the social dimensions of management and the implications not only for resource based communities, but for all Canadians who embrace the heritage of our oceans (Government of Canada 1996).

Currently, Integrated Management Planning[4] is being implemented by way of five Large Ocean Management Areas (LOMAS) designated in Canadian waters. [5] Of

[4] As defined in Canada's Ocean Action Plan, Integrated Management for sustainable development is: ". . . a comprehensive way of planning and managing human activities so that they do not conflict with one another and so that all factors are considered for the conservation and sustainable use of marine resources and shared use of oceans spaces. It is an open, collaborative and transparent process that is premised on an ecosystem approach. It involves planning and management of natural systems rather than solely political or administrative arrangements, and is founded on sound science that can provide the basis for the establishment of ecosystem management objectives (Fisheries and Oceans 2005:13)."

relevance to this study is the Pacific North Coast Integrated Management Area (PNCIMA) (Figure. 1). The area of the PNCIMA includes the traditional marine resource territory of the Nuxalk Nation. Like other First Nations, members of the Nuxalk Nation not only possess strong cultural ties to local marine resources, but currently rely on a diversity of species for both economic and food fishing purposes. Thus, any future Integrated Management Planning Initiatives within the PNCIMA stand to directly impact social, cultural and economic dimensions of the Nuxalk Nation.

Figure 1: Pacific North Coast Integrated Management Area (from http://www.pac.dfo-mpo.gc.ca/oceans/im/images/PNCIMA%20boundary-smallest.jpg). Bella Coola



[5] These LOMAs include: The Pacific North Coast; Placentia Bay and the Grand Banks; The Scotian Shelf; The Gulf of St. Lawrence and; The Beaufort Sea.

First Nations whose traditional territories lie within the PNCIMA boundaries have been working with the Department of Fisheries and Oceans to develop an Integrated Marine Use Planning Process. Participants in this process include members of Coastal First Nations[6], the North Coast – Skeena First Nation Stewardship Society and the Nuxalk Nation. As part of the initial phase of the Integrated Management Planning that began in 2007, these Nations have received funding from DFO and the Gordon and Betty Moore Foundation to develop a marine use plan for their traditional territories. The Nuxalk Nation is currently conducting community interviews and completing mapping inventories of traditional use areas.

Within the Integrated Management Planning approach there are objectives that speak directly to the very issues being investigated in this study. They include:

> To promote ocean-management decisions based on shared understanding and appreciation of the ecological, cultural, and socio-economic characteristics of the PNCIMA and, contribute to social, cultural, and economic well-being for coastal communities and stakeholders (Hillier and Gueret 2007).[7]

The final objective is central to this study. Articulating what social, cultural, and economic well-being consists of from a community perspective, however, is a difficult task. Preliminary documents such as the Oceans Act (Government of Canada 1996),

[6] Coastal First Nations is an alliance of First Nations on the North and Central Coast and Haida Gwaii, BC. The Nuxalk Nation is not a member of this alliance. However, for the purposes of Integrate Management Planning, they have agreed to work under the auspices of the Aboriginal Aquatic Resource and Oceans Management Agreement with the Department of Fisheries and Oceans. Under this framework, Coastal First Nations, and non-member Nations (e.g. Nuxalk and Skeena Nations) are working under the same operational framework.

[7] The two remaining objectives include: 1) Design an integrated decision-making framework for management across sectors and; 2) Develop institutional arrangements that bring together governments, First Nations, user groups, and other interests, resource management, conservation, and economic development and enter into agreements on oceans management with specific responsibilities, powers, and obligations.

Canada's Oceans Strategy (Fisheries and Oceans Canada 2002), and Canada's Oceans Action Plan (Fisheries and Oceans Canada 2005), do little to flesh out what these objectives may be, or how managers might assess the achievement of these conceptual objectives.

While the development of the Integrated Management Plans is still in its infancy, an unpublished draft document written by the Department of Fisheries and Oceans establishes a framework for federal practitioners when developing social, cultural and economic objectives within LOMA planning processes (Fisheries and Oceans 2007a). As outlined in this document, the objectives and dimensions for incorporation social, cultural and economic considerations within Integrated Management Planning are as follows:

Table 1: Department of Fisheries and Oceans - Setting Social, Cultural and Economic Objectives in Large Ocean Management Planning (Adapted from Fisheries and Oceans 2007a).

Objective	Dimensions
Social to enhance the quality of life, social cohesion, and community relationships as they connect to our oceans	relationships, social structures, social capital, trust, health and public perceptions
Cultural to maintain and enhance peoples' sense of place, cultural identity, and spiritual connections as they relate to our oceans	maintenance of traditional and historical connections, resource uses and values, including non-market values (e.g. aesthetic, folkloric, artistic, and spiritual) and access to traditionally used resources
Economic to encourage long-term economic opportunities and options for coastal populations through innovation, diversification and improving competitiveness	building of economic opportunities and capacity, job creation, improved employment opportunities, and enhanced incomes[8]

[8] See Appendix A for or a complete description of the social, cultural and economic objectives as outlined by the Department of Fisheries and Oceans (2007).

In light of the implementation of the PNCIMA initiative, and the focus on management that promotes the well-being of coastal communities, this study looks at the social, cultural, and economic aspects of one First Nation community located within this LOMA, the Nuxalk Nation. Specially, this research focuses on the community's historical involvement in local commercial and food fisheries and how past management policies have altered the social and economic well-being of the community, including such dimensions as social capital, social cohesion and the informal economy.

Aim of this Study

This research aims to articulate what I refer to here as 'indirect losses' associated with declining participation in a resource-based economy, and land resource planning more broadly (Turner et al., 2008). In addition, it is also the goal of this research to contribute to the development of policies that take into account theories of social capital and the informal economy. By understanding how policy has had an impact on these socio-economic processes and resulted in alterations in the formal economy, I hope to illuminate their often unaccounted value to community well-being. In doing so, this research may assist resource managers in designing future policies that foster participation in the informal economy, and the growth of social capital. This would encourage the development of resilience and community well-being in resource-based communities.

From a historical perspective, this thesis also contributes to research on First Nation involvement in the commercial fisheries. Previous studies have documented the historical events related to colonization in British Columbia, First Nation participation in

the salmon canning industry, and later involvement in the commercial fishing industry (Cf. Muszynski 1986; Marchak, Guppy and McMullan 1987; Newell 1993 and; Harris 2008). While several of these works address the negative affects on First Nation communities as a result of fisheries marginalization, none have presented a detailed analysis of the long-term social, cultural, and economic consequences of these fisheries policies. Our research findings shed some light on this issue through the lens of the Nuxalk Nation. To this end, the following research questions guided this study:

1) **How did historic participation in the early commercial fisheries/canning industry influence traditional food fishing practices?**

2) **How have fisheries policies since the late 1960's (i.e. rationalization strategies) affected Nuxalk participation in fishing related activities?**

3) **What are long-term social, economic, and cultural effects that have resulted from altered participation in the commercial and food fisheries**?

In this study, an analysis of fisheries policy, historical and academic literature was conducted as well as field research with members of the Nuxalk Nation. The overarching research objective was to generate theory and develop the thesis argument from the qualitative data obtained, rather than to test hypotheses. Thus, field research focused on unearthing observations and perceptions regarding declining commercial fisheries participation and engagement in local food fishing in relation to social, cultural and economic aspects of the community.

When this study began, the researcher's perspective focused on how the decrease in Nuxalk commercial fishermen had affected the well-being of the community and also what role the food fishery played within the community. This informed the

development of the interview schedule (Appendix B). It was not until field interviewing began with members of the Nuxalk Nation that the linkages between these two separately regulated sectors (the commercial and food fisheries) became apparent. Furthermore, it was not until the data analysis phase that more complex trends related to the informal economy and social capital networks in the community were identified.

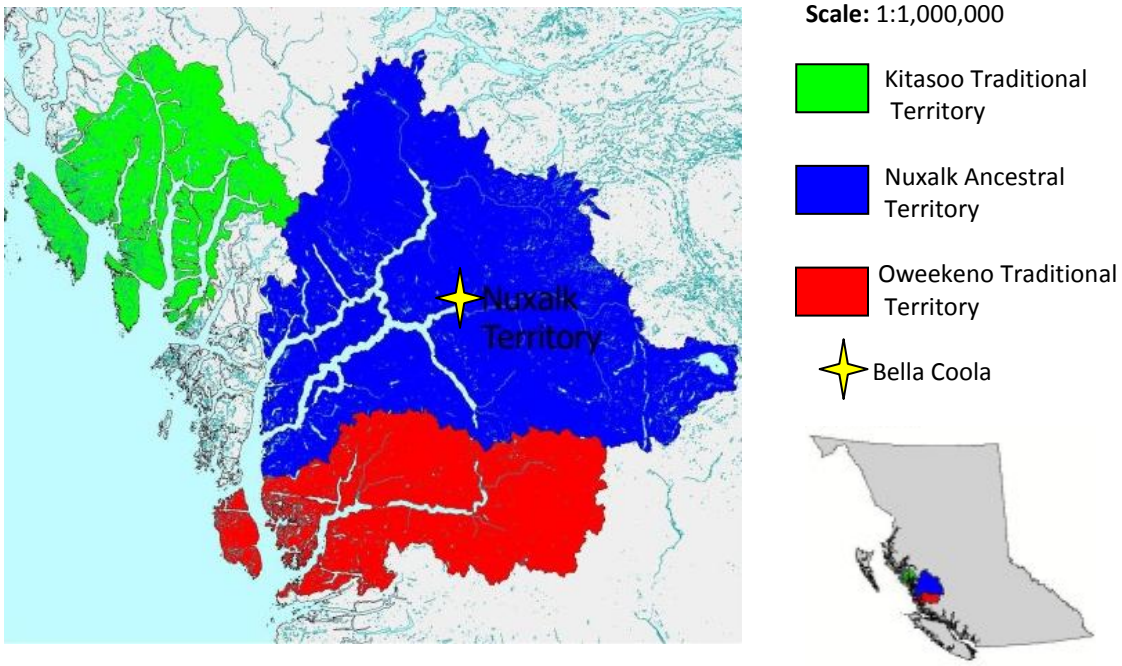
Background to the Problem

It is first helpful to provide an overview of the historical and policy events that have led to the current situation in the Nuxalk Nation. This section will begin by discussing some of the cultural history of the Nuxalkmc and offer some background material on traditional fishing practices. A brief account of trends in the community related to participation in the commercial fisheries will follow. Then the current context of the Nuxalk Nation will be described. A more detailed account of First Nation historical participation in traditional and commercial fisheries will be presented in *Chapter 3*.

Nested among the mountains of British Columbia's Central Coast, the Nuxalkmc claim that they have lived in their traditional territory since time immemorial. Before the introduction of small-pox and tuberculosis in the late 1800s, the Nation had a population of approximately 2,500 people and between 60 and 100 settlements established throughout their traditional territory (Walmsley 1987; Bedard 1994). The proliferation of European diseases resulted in successive epidemics between the 1850's and early decades of the 20th century, thus brutally reducing the population by 90 percent as of 1929. As a result, the total number of Nuxalkmc today is approximately 1400 with 900 living on the two reserves near the current town-site of Bella Coola

(Nuxalk Nation 2009). [9] These reserves are two of four reserves the government allocated the Nation between 1882 and 1902 (Walmsley 1987; Beard 1994; Winbourne 1998).

Figure 2. Map of Central Coast Nations' Traditional Territories (adapted from the Nuxalk Nation Website 2009
http://www.nuxalknation.org/content/blogcategory/16/40/).



Protected from the open ocean by a 60km fjord, the community feels seemingly distant from the open sea. Yet, the scattered nets and derelict fishing boats strewn about the community are true artifacts that tell a silent story of the Nuxalkmc as a fishing people. Just as long as the Nuxalkmc have belonged to the land, they have been

[9] "According to traditional Nuxalk government, the true Nuxalk population is closer to 3,000. This number includes people of Nuxalk ancestry who are not registered or may be registered to another (Nuxalk Nation 2009)."

tied as well to the marine and freshwater resources throughout their territory for sustenance, trade, economy, culture, and spiritual fulfillment. The Nuxalk have traditionally relied on a diversity of foods for survival including steelhead, eulachon, halibut, herring, cod, clams, prawns, and many other non-fish resources. Yet none are as important as the five species of salmon found locally, for the Nuxalk are "The Salmon People."

Despite the banning of potlatches (or more broadly feasting and the seasonal ceremonials of which potlatches are a part) by the federal government from 1884-1951, this complex of ceremonies has remained a central component of Nuxalk culture and has been revived within the community.[10] These gatherings developed to instill laws and governance structures, celebrate births, deaths and marriages. Yet a singularly important component of these ceremonies is the feasting and practice of wealth distribution or gifting which many Nuxalkmc refer to, simply, as "the give away". In potlatches, the host family, (historically a chief) would achieve status and recognize guests as witnesses the events and decisions occurring therein, by providing guests with food such as salmon, eulachon grease, herring, art and other gifts. Signifying the importance, also, of the potlatch to Nuxalk relations with the natural environment, it has been described as ". . . a vehicle for sharing the summer's wealth from the land, the river, and the sea, with the community" (Walmsley 1987:6). Thus, in traditional Nuxalk culture, an individual or family's status is not based on the amount of wealth they can

[10] For a more detailed discussion of potlatching see: Mauss (1990), Drucker and Heizer (1967) and, Codere (1950).

accumulate, but what they can give away. Still practiced today, the potlatch and related feasts are examples of the importance of exchange to Nuxalk culture and society.

In Winbourne's (1998) discussion of Nuxalk salmon stewardship, the author suggests that these practices are not defined by a set of actions but are influenced rather, by codes of conduct, values and moral systems, and behavioral norms. Such practices are apparent in many aspects of Nuxalk life, such as resource distribution. Similar to other Indigenous cultures, the Nuxalk have a strong belief that one should only 'take what one needs'. Accumulation of resources beyond ones' necessities was prohibited and enforced by stories and myths about the retaliation of the animal spirits if they were disrespected.

Throughout history, Nuxalkmc participation in fishing activities have taken many forms, from traditional fishing prior to European contact, to extensive involvement in the commercial sector during the era of salmon canneries since the late 1800s. With the concurrent rise of the coastal logging industry, the formal economy in the Nuxalk Nation came to be dominated by dual participation in these resource-based sectors. Often, lifestyles were influenced by the seasonal nature of these industries with members fishing in the summer months and logging in the winter. Unfortunately, this pattern of resource dependence witnessed in many parts of British Columbia left communities vulnerable to boom and bust economies. Today in the Nuxalk Nation, both fishing and logging have largely passed in the wake of market transformations and industry reform.

The years preceding fisheries rationalization policies brought significant changes to First Nation industry involvement. The centralization of canneries in the 1920s and

30s had left many First Nation workers unemployed (Pearse *in* Wood 2001:3). However, First Nation cannery fishermen had become highly reliant on the canneries for boat rentals, licenses, and financial services (Wood 2001:4). Since restructuring of the commercial fishing fleet began in 1969, mainly by way of the Davis (1968) and Mifflin (1996) Plans[11], there has been a steady decline of First Nation participants. These programs aimed to economically rationalize British Columbia's commercial fisheries by reducing the number of fishermen through the buy-back of licenses (Wood 2001), limited entry licensing, the closure of processing facilities, and other strategies.

Therefore, during the buy-back programs, specific components of these plans disproportionately affected First Nations such as preferences given to high capacity vessels, and the phasing out of vessels catching less than 10,000 pounds per year. These policies resulted in approximately 400 British Columbian First Nation persons leaving the fishing industry from 1964-1970, essentially alienating First Nation residents from the commercial fishing activities on which they had come to rely (ibid).

The effects of these policies are still felt today by the Nuxalk Nation where there are fewer than 12 individuals (approximately 1.25% of the population) who currently participate directly in the commercial fisheries (Nuxalk pers. comm.). This decline is significant compared to the 1970s when 30% of the Nuxalk participated in commercial fishing activities (Boland 1974:20). With no other significant economic opportunities being developed in the community, there are few employment opportunities other than with the local Band Council, the Nuxalk School, self employment (i.e. artisans,

[11] The details of these plans will be explained more fully in Chapter 3.

mushroom picking), or the few wage-labour positions. Though local estimates vary, unemployment is said to be around 80 percent with some estimates as high as 97 percent (Nuxalk pers. comm.).

As well as economic challenges, the Nuxalk Nation continues to face the legacy of colonization and the residential school system where children were taken from their families and moved to boarding schools. Within those institutions, the practice of Nuxalkmc culture and language was severely punished, and it effectively alienated many Nuxalkmc from their family and culture. During interviews, a number of respondents linked their personal struggles with alcoholism, and drug abuse with the mental and physical abuse suffered as students in the residential school system. Today, this history often manifests in the form of social turmoil in the community, namely substance abuse, suicide, family violence and entrenched reliance on welfare.

Such low participation in the formal economy and dependence on government assistance means that many Nuxalkmc strive to rely, at least in part, on their *cultural ways* to meet many household needs. Thus, subsistence fishing, resource gathering and local exchange take on considerable economic and social importance. Despite such drastic economic hardship, and the remaining legacy of colonization, the Nuxalk have, in many ways stayed true to the cultural and traditional roots that have shaped them as survivors. By relying on the fish resource in their territory, their fishing knowledge and their cultural values of sharing, the Nuxalk have used informal economic activity to compensate for economic adversity experienced since the decline in the logging and fishing industries.

These food fishing activities are currently legislated under the Aboriginal Fisheries Strategies (AFS) established by the Canadian Department of Fisheries and Oceans. Under this agreement, First Nation bands that have not had land claim settlements are permitted to manage communal fishing for food, social and ceremonial purposes (Fisheries and Oceans 2005). For the Nuxalk, the central implementation of this agreement rests on the local salmon food fishery that takes place in the Bella Coola River. River fishing has provided a more economical way to catch fish, and is being capitalized on by increasing numbers of Nuxalkmc.[12] [13]

Although the commercial and food fisheries have continued throughout the fishing history of the Nuxalkmc, the two cannot be understood in isolation – over time they have become intertwined. Fish caught commercially also fulfilled sustenance needs for fishermen and their families. Commercial fishing boats were (and are still) used to access other traditional marine resources such as halibut and clams. The income generated through this industry provided the means to pay for other costs that, through colonization, have become associated with food gathering activities such as the purchase of fishing gear, vehicles and fuel. That is, the income from the commercial fishery also facilitate trade and bartering activities, food redistribution, and generalized reciprocity within the Nuxalk informal fishing economy.

While food fishing practices continue, this study is interested in how the decline in commercial fishing participation has affected this traditional fishery, and the broader

[12] The main fishing method used in this fishery is referred to as drift-netting, as fishermen cast their nets as they drift with the current. This method has a much lower cost than using a commercial boat outside the inlet (Winbourne 1998: 78). Restrictions on some species of salmon exist (e.g. coho and steelhead)
[13] The on-reserve population is reportedly increasing (pers. com., Nuxalk community members)

implications of this for community well-being. As will be discussed later in this work, although the Nuxalkmc now have the *right* to food fish under the AFS agreement, their ability to do so is frequently compromised by the loss of fisheries infrastructure, income and locally declining resources.

Conceptual Perspectives Used in this Analysis

To understand how the transformation of Nuxalk participation in the commercial and food fisheries has affected social, economic, and cultural aspects of the Nuxalk community, conceptual frameworks related to informal economy and to social capital are utilized throughout this work. In this section, I explore these concepts and focus on definitional and theoretical discussions. These theories will be addressed in more detail in the analysis chapters of this thesis. Thus, in Chapter 3, I investigate the impacts of changing fisheries participation on the Nuxalk informal economy, and in Chapter 4, I assess the related social implications using social capital and social cohesion theory.

Informal Economy

The informal economy spans income levels, classes, geography and culture. Its complexities are vast. For example, the informal economy exists when neighbours in a less developed country barter crops, or in a city's business sector when white-collar workers exchange technical services. That is, while the *formal* economy consists of activities and transactions that are accounted for within a state-regulated, legal market, and regulatory framework, the *informal* economy generally refers to:

> . . . the production, distribution and consumption of goods and services that have economic value, but are neither protected by a formal code of law nor

recorded for use by government-backed regulatory agencies (Ellison, Arsenault and Reimer 1997).

Included among the many legal activities in the informal sector are: self-provisioning, barter, volunteer work, unpaid labour, caregiving, subsistence production, and pricing based on friendships and arrangements other than market prices (Reimer 2006:25). Although, in our daily lives we may not think of these transactions as contributing to any economic system, the way that many of us access goods and services lies outside the confines of the formal economic sector but still has a significant economic impact. [14]

The general concept of the informal economy gives rise to a wide range of terms that are synonymous with *informal economy,* such as: *underground*, *submerged*, or *secondary economy* (Portes, Blitzer and Curtis 1989:3). In indigenous contexts, there also exists a suite of terms that are used to conceptualize the social actions that take place in an informal economic system, including: *indigenous* or *traditional economy* (Langdon 1986), *mixed economy* and *customary economy* (Altman and Allen 1992). These terms are frequently used interchangeably, but can possess subtle differences from one another. While each can fit within the scope of informal systems, they cannot necessarily be used interchangeably. For example an indigenous economy would not be classified as a mixed-economy if there is no involvement in the formal sector. Yet, both

[14] One of the best examples of the informal economy that I have encountered emerged in a recent discussion with a friend who owns a winery in the Okanagan Valley. Aside from producing award winning wines, he uses his product as a currency within the informal sector. No longer does he buy seafood – he trades wine. He negotiates with restaurants and receives gift certificates in exchange for wine. And, perhaps the best example of his participation in the informal economy, he has organized a "Sucker's Club". Here, anyone can go to the vineyard, volunteer their time picking the sucker shoots from the vines, and be paid in wine. The informal economy exists all around us.

may be characterized as informal economies if participation and exchange remains unregulated. As there are several terms that one could use to describe similar *informal* activities in an indigenous context, I will take this opportunity to explain my reason for using this term in this study.

In Altman and Allen's (1992) investigation into the Indigenous informal economy of the Aboriginal and Torres Strait Islander people in Australia they use the term informal economy to encompass:

> . . . non-monetary, subsistence or 'own-account' production, as well as unmeasured monetary transactions. Concrete examples of the former type of activity include hunting, fishing, gathering, gardening, artifact manufacture and housebuilding for domestic use; examples of the later include production of arts and crafts for sale and small-scale commercial fishing (P. 138).

In addition, Dallago (1990: xix) uses the term to include those transactions "for self-consumption or for persons directly associated with the agents (relatives, friends, acquaintances)." Among the Nuxalkmc, fishing takes place both as *formal* commercial activities, as well as for *informal* subsistence purposes. Fish resources that are harvested for subsistence are often kept for personal consumption, shared or exchanged with kin or other members of the community, traded with other First Nation communities, or used for ceremonial purposes. As supported by Altman and Allen (1992) and by Dallago (1990), this study will use the term *informal economy* to refer to a wide range of activities tied to subsistence fishing, including the harvest, production, consumption and exchange of fish and other marine resources. In choosing to use *informal economy* to understand the Nuxalk context, it is important to state that it is not my intent to discount or ignore the indigenous, semi-subsistence nature of exchange in

the community. Instead, *this study aims to highlight the relationship between the regulation of the local formal commercial fishing economy and Nuxalkmc participation in the informal fishing economy*.

Although the formal and informal sectors are differentiated within the literature, the actual functioning of these systems is quite interconnected. As Fernandez-Kelly and Garcia (1989) describe:

> . . . workers often move intermittently between the two sectors, responding to need and opportunity created not only by the economic environment but also by policies emanating from state or federal agencies. . . . This, the formal and informal sectors appear to be divided by a highly porous membrane, not a rigid boundary (P. 251).

The overlap between these two economies is especially relevant in this research context, where subsistence and commercial fishing activities often share infrastructure, income, and expertise. With respect to resource management policy, the way that regulations alter participation in the commercial sector also has implications for the Nuxalk informal fishing economy. This interplay between these sectors will be a central focus in later *Chapters.*

Scholars have emphasized that the informal system is not exclusive to the poor, nor does it represent an outdated system used by individuals who resist progress or the formal market. In fact Portes et al. (1989) argue the informal economy often involves participants with relatively high levels of income (Cf. also Portes et al. 1986; Lozano 1985; Ferman, Berndt and Selo 1978; Henry 1978). However, the role of the informal economy in communities with lower income levels cannot be under estimated, as this

system can enable economically vulnerable communities to remain resilient during times of hardship.

In particular, rural, resource-based communities often benefit from localized exchange systems to compensate for economic instability characteristic of the "boom and bust" nature of resource dependence (Reimer 2006; Adger 2000; Reimer and Apedaile 2000; Harper and Gillespie 1997; Tickamyer, Wood and Little 1997). This approach is consistent with Granovetter's (1985:504) understanding of economic behavior as embedded in networks of interpersonal relations. That is, the informal economy is not only a system that enables access to needed resources; it helps to cultivate social networks, trust, reciprocity, social cohesion, and trust. As Reimer (2001:4) suggests, the informal economy "not only involves the exchange of goods or services, it also affirms the trustworthiness of the people involved and the networks that support them." It is social outcomes such as these that reaffirm social capital as the basis of the informal economy in rural communities.

As the Nuxalk Nation continues to experience a depressed formal economy, the informal economy – particularly the exchange of marine resources – is an important aspect of community resilience. This reliance on local food resource is not only a continuance of traditional culture but an economical alternative to costly, locally purchased foods that are often shipped into the community.

Social Capital

By examining participation within one aspect of Nuxalk society, the informal fishing economy, it is also our intent to gain insight into the nature of social capital and

how resource management policy can affect its development or erosion. This study is not representative of the entirety of social capital within the Nuxalk Nation or its political sphere. Research findings with respect to the informal fishing economy do, however, illustrate trends in social capital that speak to relations in the Nuxalk Nation more broadly. At this point, it is necessary to discuss the nature of social capital and the term's theoretical underpinnings.

Social capital can be conceptualized as a social system where acts of reciprocity, trust, and networking can be freely shared, and held in trust for later reciprocation. Examples of social capital are pervasive throughout our daily life where simple acts, such as helping a friend paint their house, will probably be repaid in some reciprocal fashion though the time and method of the repayment are likely unknown. Within these social exchanges, individuals have the potential to hold resources either personal or social in nature, where ". . . social relations may include ownership of material or symbolic goods . . ." and ". . . are accessed through an individual's social connections (Lin, Cook and Burt 2001:21)." As Lin et al. point out, the critical value of social capital is that it enables the acquisition of other resources through social relations. As these authors note, these social resources are often more valuable than personal resources.

French sociologist Pierre Bourdieu (1983/1986) was a pioneer in developing the concept of social capital. In his groundbreaking work, he identifies the cultivation of social capital resources to be highly associated with a ". . . network of institutionalized relations of mutual acquaintances . . ." and that being a member of a group, community or association has the potential to further perpetuate social capital (Bourdieu

1983/1986). Thus, in the view of Bourdieu, it is participation in ones community that gives rise to productive social networks. In this study, such relationships are assessed on the basis of participation in fishing related activities that, for the Nuxalk, have traditionally been opportunities for socializing and community engagement. These will be discussed in *Chapter* 4.

Though scholarly discourse around social capital began over twenty-five years ago, social capital theory has more recently become pervasive not only in a number of disciplines but in mainstream policy and economic development research (Baron, Field and Schuller 2000). Recent applications of the concept have been as a predictor of school attrition and academic performance; children's intellectual development; sources of employment and occupational attainment; juvenile delinquency and its prevention; and immigrant and ethnic enterprise *inter alia* (Portes 1998:9). The wide application of social capital has led some scholars to question the theoretical integrity of the concept, (*Cf.* Putzel 1997; and Portes 1998). In the opinion of Putzel (1997) this has resulted in a term that has become 'all things to all people'. Thus, it is necessary to define the scope of social capital that is being examined in this research context.

One central argument about the term is whether social capital exists as the property of individual actors, or as a more diffuse resources existing at the community or national scale. Putnam's (1993) analysis of civicness as a predictor of social capital in Italy supports the latter, while Coleman's (1998) view contends the former. Though I do not dismiss the work by Putnam and others, this thesis supports the notion that social capital is possessed by those individuals engaged in social relations, yet more broadly,

the accumulation of social capital among individuals can be a valuable resource to the society as a whole (Matthews 2003:27). The use of the concept in the remainder of this work focuses on social capital as it is negotiated and produced though activities related to the harvest and use of fish resources and how those relationships are affected when the conditions of resource use are altered. Accordingly the focus here is less concerned with measuring or quantifying the extent to which social capital exists in the community, but on a qualitative analysis of how social capital relations in the informal economy have been affected by fisheries management policy.

The extent to which social capital can be produced is largely related to the social ties that exist within a society or community and includes both ties that are kinship and non-kinship based; each has the potential to provide social support and act as a safety-net when needed (Coleman 1998:S109). Hofferth and Iceland (1998:576) suggest that the social-capital relationships acquired by individuals can begin at birth as products of kinship and community ties. In one sense, social capital becomes inherited from parents and family members. In the case of the Nuxalk, kinship ties are predominant forms of social ties, and social exchange within the community is often aligned closely with, and influenced by these ties.

Although social capital can be a product of both kinship and non-kinship ties, differences do exist between these. Hofferth and Iceland (1998) build on this claim by suggesting that "individuals with many family members in close proximity may cultivate family relationships, and individuals far from kin may cultivate friends and acquaintances" (P.576). In contrast, Granovetter (1973, 1983) stresses that while the

strong ties of kin are important, they cannot provide the quantity and heterogeneity of information that the "weak" ties between nonrelated individuals provide. This argument, however, may hold limited relevance in small rural communities that must maintain strong social safety-nets and self-reliance. Notably, the distinctiveness of rural life is thought to directly influence the character of ties that are established. In circumstances where formal economies are non-supporting, dependence on social capital and more specifically "strong bonds" will provide the resources needed for survival. Wilkinson (1991) contends that the dominance of strong ties in rural communities is indicative of geographical isolation and environmental challenges that characterize these communities. As a result, residents often exhibit greater feelings of responsibility towards members of their community and families in comparison to urban residents (Coward and Rathbone-McCuan 1985; Lee, Coward and Netzer 1994).

For the Nuxalk, most networks are based on kinship (specifically, lineage ties) or other strong ties typical of small, isolated communities with dense social networks. However, exchange in their local informal economy is dependent on both strong and weak ties. Within the community, strong ties facilitate generalized reciprocity, sharing, fishing networks and access to resources and often involve kinship. Conversely, weak ties linked to the informal economy can also be established to facilitate trade and exchange with people from other communities. Hence, the embeddedness of Nuxalkmc networks may be a considerable determinant for accessing external resources. However, these networks are also largely influenced by the ability to access resources

needed for exchange. That is, one must be able to catch salmon in order to exchange it, or give it away.

Considering this issue of access, the comments of Hofferth and Iceland (1998) raise an interesting point. With respect to providing and receiving assistance through social networks, they suggests that "receipt of support signals a combination of need and network embeddedness . . . the actual amount given or received is an indication of network resources" (P.576). Though the authors' valuation of network integrity may hold true, they neglect the issue of resource access. No matter how many networks one has, or how willing members of a network are to assist one another, if they do not have the means to do so, the transactions will likely be undermined. This argument has direct relevance in the field of natural resource management. Policies designed to mange a given resource can directly alter how members of a community access it. If the resource in question is used for exchange within the informal economy, social capital networks may be directly altered as well.

In the natural resource management literature, social capital is often approached from a utility perspective, exploring the applications of the concept as a mobilization tool to gain desired policy outcomes (*Cf.* Pretty and Ward 2001). No studies to our knowledge have investigated how resource management policies may impact social capital.

In a similar vein, Adger (2003) investigates climate change, adaptive capacity, and social capital. The author explores the public good aspects of social capital and their relevance for natural resource use, as well as their potential contribution to

institutional performance in response to climate change (P.387). Adger (2003) brings attention to two aspects of social capital: 1) state limitations on the formation of social capital; and, 2) synergy between social capital and the state. With respect to the interplay between the social capital and the state, he notes that the state has ". . . profound implications for the environmental and other governance issues" (P.395). The work of Adger (2003) on the relation between climate change and adaptation research has important implications for the relationship between social capital and resource management policy. That is, policy outcomes impact social capital, and this demands attention. This thesis addresses this knowledge gap by investigating how management of the British Columbia commercial salmon fishery has impacted the Nuxalk informal fishing economy. It is goal of this research to thereby contribute to a better understanding of how resource management policy can erode or promote the very foundations of social capital present in a community *vis a vis* the informal economy.

Organization of Thesis

To investigate the research questions just described related to social capital, social cohesion, and informal economy, this study uses empirical data collected in the Nuxalk Nation. The thesis is comprised of five chapters. *Chapter* 2 presents the research methods used in the investigation and analysis of this study, as well as discussion of issues related to conducting research in a First Nation community.

Chapter 3 is the first of two detailed empirical analysis chapters. It presents historical, policy and empirical information to document the differentiation of First Nation food and commercial fisheries in British Columbia. Despite the differentiation in

these contexts, it is argued in this *Chapter*, that the Nuxalkmc food fishery has largely come to depend on the infrastructure and income provided by the commercial fishery. Thus, *Chapter 3* also discusses the implications of this dependence for the viability of the Nuxalk informal fishing economy.

Chapter 4 provides an analysis of the changing social organization of the food fishery. I demonstrate how participation in the informal economy is impacted by the loss of commercial fishing boats, gear, income, and other forms of physical capital. The relevance of these findings to the social capital literature is also presented, as I explore dimensions of social cohesion, trust, generalized reciprocity, and social networks, exclusion from the formal economy, and perceptions of institutional legitimacy.

Chapter 5 concludes the study with a summary of research findings and contributions. It also provides some policy recommendations gleaned from this study and directions for future research.

Chapter 2: Methods

Community Partnership

This research was conducted in partnership with the Nuxalk Band Council through the Coastal Communities Project (CCP), an initiative funded by the Social Sciences and Humanities Research Council of Canada. The CCP is a "Community University Research Alliance" in which research communities such as the Nuxalk work as equal partners in identifying research needs and collaborate on research development and design. Under the CURA project, a working relationship has been established with the Nuxalk through the development of a number of projects including a Nuxalk Land Resources Utilization Plan as well as research on forestry management practices for the Nuxalk traditional territory, and on the co-management of climate change. The Nuxalk Nation is one of several civic and First Nation community partners throughout coastal British Columbia who work with CCP researchers to address issues relating to social and economic development, education, governance, sustainability, and health and wellness (Coastal Communities Project 2005).

It was from this established partnership between the Nuxalk and the CPP that the research presented here began with the Nuxalk Marine Planning Board. The Nuxalk recently began to gather information from the community to assist in the future development of a Marine Use Plan for the Nation's traditional territory. The Nation has also been allocated funds by the Moore Foundation to conduct research pertaining to

the use of traditional[15] marine resources. To assist in this initiative, it was decided by the Nuxalk Marine Planning Board that data on Nuxalk participation in the commercial and food fisheries would be valuable in the development of any marine planning initiatives the Nuxalk may undertake in the future. A qualitative research approach was used to gather this information via face-to-face interviews with forty-one community members involved in fishing related activities

Gaining Community Access

Gaining access to participants in an unfamiliar community can present significant challenges for a researcher. This barrier can be further compounded in small communities where outsiders are easily identified. These were critical considerations when undertaking research in the Bella Coola Valley. As a young, non-Nuxalkmc woman entering a community where 'everyone knows everyone' there is a palpable feeling of being an 'outsider'. Smith (2008) describes the challenges that these characteristics can present, particularly when engaging community elders.

> Gender and age are two quite critical factors in some indigenous contexts. For younger students there is a very real constraint on access to knowledge when working with elders. There are also protocols of respect and practices of reciprocity (P. 136).

My limited knowledge of life in the community and my underlying naiveté allowed engagement with many members of the community from a position of openness rather than imposing my worldview or preconceived knowledge. Admittedly,

[15] While I recognize that practices designated 'traditional' can be so assigned for political purposes and that some traditions are ephemera, others are enduring. Salmon, for example, is integral to Nuxalkmc tradition historically and presently.

accessing rich 'data' is more than just speaking with respondents. It is having people feel willing to sharing their knowledge with you. Though I experienced a sense of frankness in most interviews, there were times when respondents seemed to be visibly withholding information or, more aptly, simply providing the basic answers to questions posed. This occurrence, however, was representative of the interviewing process. Despite the openness perceived in many interviews, I cannot discount how my place as an 'outsider' also positioned the engagement between myself and the respondents. That is, my 'outsider' position likely fostered the sharing of knowledge from respondents, but also excluded me from receiving other forms of cultural and traditional knowledge more revered and protected. To this end, the depth of analysis presented in the remaining *Chapters* depicts the breadth of information extended to me by the Nuxalkmc respondents.

In addition to these limitations, the Nuxalk Nation has been the subject of many research initiatives in the past. Perhaps the most noteworthy of these was conducted in the early 1920s by anthropologist T.F.McIllwraith who recorded several volumes on the Nuxalkmc and their living culture (McIlwraith 1948). More recent studies include investigations of drug and alcohol use and community well-being (Thommasen et al. 2006), Nuxalk masks (Seip 1999, 2000), as well as art and Nuxalk identity (Kramer 2006).

Over-researched populations commonly hold negative attitudes towards participating in studies. These feelings may include (but are not limited to) resentment, self-consciousness, and powerlessness because of their inability to influence the research design (Bailey 1994:210). Additional points of contention may relate to the

ownership of knowledge, and who benefits from the research. In the case of the Nuxalk, there exists a subtle air of skepticism towards outside researchers and the potential benefits to the community. In spite of this, the majority of the Nuxalk participants were quite willing to take part in the study and share their experiences, often quite openly. While it is not possible to deduce that the high rate of participation is a result of the ongoing collaboration between the Nuxalk Band Council and the Coastal Communities Project, perhaps forging trust through collaborate research initiatives may help address some of the research challenges that exist when conducting research with First Nations (Smith 2008).

To further facilitate entry to the community, a Nuxalk research assistant (RA) was hired for this project. This individual provided a great deal of community insight and was vital in identifying and establishing contact with research participants. Because the Nuxalk Nation is such a small community, the RA was known to all those who participated in the project. Thus, by acting as somewhat of a liaison during interviews, the RA greatly helped to make the respondents (as well as the interviewer) feel more comfortable during the interview process. The presence of the RA was especially valuable when conducting interviews in the respondents' homes. A second RA was hired to complete several of the final interviews. It was the opinion of the full-time RA that this would be more appropriate for personal and political reasons. Despite the great benefit of having these research assistants, there were approximately five potential respondents who refused to participate. It was the opinion of the research assistant that these refusals were, in part, a result of past political issues within the community.

Qualitative Methods

When using qualitative methods, researchers aim to gain an in-depth understanding of social phenomena within a smaller sample size, rather than seeking generalizability from a large, representative sample (Ambert et al. 1995:880). That is, qualitative research seeks depth rather than breadth; discovery rather than verification (ibid). Qualitative techniques are employed to pursue questions about the nature of social behavior (ibid) and the substance of the human experience (Maravasti 2004: 7). More specifically, qualitative research attempts to discover the nuances of social life, human behaviour and the meaning we give to our lived experience. As Ambert (1995:880) and her colleagues describe, qualitative research may elucidate a variety of social occurrences including: new patterns of behavior, new forms of social organization or social structure, and/or new ways of thinking or interpreting social processes of change. For this research, a qualitative approach was chosen to gather descriptive data and accounts of the respondents' experience in relation to their participation in fishing activities. This approach allowed for direct engagement with members of the community who experienced the rise and fall of local commercial fisheries. Only by capturing direct observations and world-views on the ties between fishing, culture, family and community could we represent the voice of the story of the Nuxalk.

Interviewing

Qualitative data collection was carried our using semi-structured interviews, one of several qualitative techniques. Babbie (1999) describes qualitative interviewing as ". . . a conversation in which the interviewer establishes a general direction for the

conversation and pursues specific topics raised by the respondent (Babbie 1999:268-269)." One key advantage of a qualitative interview technique is it the flexible questioning style that can be used with the respondent (Bailey 1994:191). While the interviewer will have a developed interview guide, he or she also has the freedom to adjust questioning and explore various avenues as they develop throughout the interview (Rubin and Rubin 1995). Conducting face-to-face interviews with members of the Nuxalk Nation provided an invaluable opportunity to elicit first-hand perspectives on how participation in the commercial fisheries has affected the community. Furthermore, this technique allowed an open dialogue during the interview process, yet also ensured consistency in the questioning and topic areas discussed.

A purposive sampling approach was used to select research participants. Respondents were non-randomly sampled. Instead they were selected based on participation in the commercial and food fisheries (Table 1). An initial list of potential participants was developed with the assistance of the Nuxalk Marine Use Planning Board. The small Nuxalk population of 905 individuals living on-reserve as of 2001 (Statistics Canada 2001), enabled a thorough identification of potential participants. In addition, a snowball sampling technique was used whereby respondents are asked to identify other individuals that would be relevant research participants (Babbie 1999:459). When using this technique, the sample is identified as being complete when interviewees consistently identify the same individuals as potential research participants. This pattern of 'same-name referral' was prominent in this interviewing

process, and was an expected occurrence considering the small size of the Nuxalk community as well as the limited number of local participants in the fisheries.

A total of 41 people were interviewed (males *n*=35, females *n*=6) (Table 2) and interview times ranged from less than an hour to over 3 hours. The number of female participants is significantly lower due to commercial fishing being typically a male dominated occupation. Conversely, the processing and production of fish is often the responsibility of female community members.

Table 2: Nuxalk Participation in Fishing Activities

Category	**Respondents** (N= 41)	
	Number (#)	Percentage (%)
Currently Commercial Fishing		
License holder	12	29
Boat operator	1	2
Deckhand	1	2
No Longer Commercial Fishing		
Sold license privately	5	12
Sold license in buy-back	4	10
License repossessed or lost due to financial difficulties	6	15
Quit	10	24
Past Deckhand	2	5 (100%)
Currently Food Fishing	34	83
No Longer Food Fishing	7	17 (100%)

There were several interviewees whose fisheries involvement was indirect, but equally important. These respondents mainly included the wives of fishermen who often had a significant role in running the fishing business and who would often fish with their husbands. Other women had more direct involvement including license ownership, and operation. In many cases the information provided by these women

was particularly detailed and insightful. Those interviews where both the license holder and the spouse were present proved to be exceptionally valuable in terms of the information that cultivated in the dialogue between the respondents.

The development of an interview schedule for this project entailed several iterations with input from my thesis supervisor, Dr. Ralph Matthews. The final version of the interview was brought to the Nuxalk Marine Planning Board where recommendations were made and final revisions completed. The comments by the board were valuable in providing insight as to how participants may respond to phrasing of particular questions, as well as sensitivity of some questions which may be perceived as intrusive.

In designing the questionnaire, two key topic areas were chosen for discussion: past or current involvement in commercial fisheries, and past or current involvement in the local food fishery (Appendix B). The main purpose of this research was to evaluate the impacts of commercial fishery licensing and regulation. Therefore, focus was placed on interviewing people who had been involved in the commercial fishery at some point in their life. Most of the participants interviewed were also involved in food fishing activities in the community. Both sections of the interview schedule were used for these individuals.

Having previously worked in the community as a research interviewer, I was familiar with some of the challenges the Nuxalk Nation has been facing since the collapse of the commercial fisheries. The loss of fisheries access is palpable as the old fishing boats, gear, and industry buildings erode under the grip of the coast. When

talking with members of the community prior to this research, fish, or the lack thereof, was central on the minds of many. The clear decline in commercial fishing because of license buy-back programs, and the observed decline in local food cultivated a keen interest in what all of this meant for the Nuxalkmc as a community.

Using this point of interest and my personal experience in the community, a qualitative interview guide was developed. Questions aimed to elicit a better understanding of the social, cultural and economic impacts on the community as a result of altered participation in both the commercial and food fisheries. Field interviewing also aimed to elicit how the management of the commercial fisheries over time has occurred at the community level. The intention in this line of questioning was to capture the perceived implications of policy and resource management held by those Nuxalk who were directly or indirectly affected by rationalization strategies. In addition, questions focused on social aspects of the local food fishery and how changes in these resources have affected those who depend on them for subsistence purposes. Personal observations of sharing salmon and accounts of the social dimensions of harvest and exchange of marine resources also prompted questioning about experienced changes in access and use practices.

Interviews were audio recorded and transcribed. Additional field notes were also taken during interviews. Each anonymous audio recording was transcribed into text by an outside transcribing agency that had conducted accurate and timely transcription work for previous CCP studies. Transcriptions were analyzed using

ATLAS/ti, a software program designed to assist qualitative researchers with text management and data interpretation (Muhr 1991:350).

Open coding was first conducted by reading all interview transcripts to identify prominent themes and ideas that emerge from the text. Through continuous reading of the data, these themes were then refined and reorganized into workable categories (i.e. community well-being, fishing networks, food redistribution and sharing, kinship networks etc.). Once the development of coding categories was complete, a more detailed analysis of the data was conducted so that all interviews were coded accurately, using a consistent set of codes. The use of Atlas.ti in this process allowed passages and quotes to be 'tagged' with chosen codes. This was particularly useful in the writing and analysis phase because it enabled the retrieval of all text tagged with a particular code.

Confidentiality and Ethical Considerations

In order to protect the confidentiality of the respondent, each interview was assigned with an interview code. When quoting from the interview data, this code is used to identify the respondent. A description is also given to provide the reader with a context for the respondent's quote, for example: (Respondent No. 00, retired commercial fishermen). All possible attempts were made to protect the confidentiality of the participant during the analysis and presentation of the data. When necessary, identifying information was removed from the quotations to prevent the identification of the participant.

This project was not seen as having any emotional or physical risks to the participant and was approved by UBC's Behavioral Research Ethics Board (BREB) (BREB File H07-01415, Appendix C). Nuxalk Band Council Approval was also granted before research began. Maravasti (2004) states that informed consent ". . . includes written or verbal statements that provide research participants with a general description of the research project along with its potential harms and benefits (P. 139)." As part of BREB protocol, informed consent was granted by the participants and a signed consent form was obtained prior to each interview (Appendix D). Because this research was conducted in partnership with the Nuxalk Marine Planning Board, there was a request that a Nuxalk consent form was also signed by the respondents (Appendix E). The details of both consent forms were explained to the participants. This aspect of informing the participants of their rights during the interview and the contents of the consent form was especially important, due to the limited literacy of some respondents. During this process I attempted to present the information in a clear and concise manner. In instances when the respondents' illiteracy prevented signed consent, verbal consent was obtained and audio recorded.

When engaged in a dialogue with a respondent, adhering to even a semi-structured interview format is often challenging. In many cases, listening to stories and experiences shared by the interviewee was important in establishing trust and a level of comfort between the interviewer and the respondent. This process of trust building was also a product of the cultural context we were in. Interviewing elders, in particular, required patience to allow the respondent to dictate the speed and general direction of

the interview. For instance, there were several interviews where I spent a significant amount of time listening to stories, myths and personal histories before I felt comfortable proceeding with interview questions. When reflecting on this process I realize that the openness and generosity of the Nuxalkmc taught me both patience and humility. As my research assistant advised me in the beginning of the interviewing process "People will want to tell you stories - you can't rush or force people, especially the elders. If you do they won't talk to you."

This advice guided me through the process of interviewing. With many of the people I met, the sharing of information, knowledge and stories was anything but limited. In some cases, it was the openness of the respondents that was the most challenging. In a community with a long, dark history of the residential school system, consistently high unemployment rates, and systemic drug and alcohol abuse, respondents often shared personal accounts of challenges that they continue to face in their lives. At times, the visible emotion expressed by the respondents provided me with a more intimate understanding of the community and a valued perspective of the continuing challenges the Nuxalkmc face. Despite the darkness many have experienced, their strength, generosity, warmth, and resilience continue to inspire me.

Document Analysis

In addition to field interviews, extensive document analysis provided a critical source of secondary data. Document analysis is used in many aspects of qualitative research as a tool to understand the larger research context, and may include the

review of political, institutional, cultural, historical and legal texts. As Patton (1980:9) notes "One of the cardinal principles of qualitative methods is the importance of background and context to the processes of understanding and interpreting data."

Historical texts were vital in constructing an accurate picture of First Nation participation in the commercial fisheries, and to also understand traditional food fishing activities and methods. The work of Dianne Newell (1993), *Tangled webs of history: Indians and the law in Canada's pacific coast fisheries* and Douglas Harris (2008) *Landing Native Fisheries: Indian Reserves and Fishing Rights in British Columbia, 1849-1925,* were the primary texts used in *Chapter* 3 to charting the course of First Nation involvement in the British Columbia commercial fisheries.

Throughout the research process I reviewed government documents and policies related to rationalization strategies within the British Columbia commercial fisheries. Notably, writings by Sinclair (1960), Fraser (1979), Marchak et al. (1987), Muse (1999), Wood (2001), and Grafton and Nelson (2005) contributed significantly to understanding the regulatory aspects of fisheries management since the 1960s. These documents helped to spell out specific policy decision that altered First Nation participation in the commercial fisheries and to provide the context needed to frame the interview data. The findings of these documents are presented in *Chapter* 3.

A review of academic literature pertaining to the informal economy, social capital, and social cohesion was also performed and used in the analysis portions of *Chapters* 3 and 4. More specifically, the work of Ellison et al. (1997) provided a useful discussion of key conditions that permit participation in the informal economy.

Accordingly, these categories became central to organizing the investigation of altered Nuxalkmc participation in their informal fishing economy discussed in *Chapter* 3. In addition, Jenson's (1998) work on fundamental dimensions of social cohesion speak directly to the Nuxalkmc data, and are used in *Chapter* 4 as categories to present and discuss research findings related to both social cohesion and dimensions of social capital.

Conclusion

As discussed in this Chapter, I used two qualitative techniques to gather data on the Nuxalk commercial and food fisheries. Field data collection took place during the winter of 2008, consisting of 41 semi-structured interviews with members of the Nuxalk Nation. Analysis of historical, policy, and government documents provided a secondary data source. The purposive sampling technique employed in this study facilitates an in-depth investigation of the social and cultural impacts the Nuxalkmc have experienced as result of changes in commercial and food fishing participation. The analysis of interview data will be presented in *Chapter* 3 and 4.

Chapter 3: *What is one without the other?* Interdependence of Commercial and Food Fisheries in a First Nation Context

Introduction

This *Chapter* will demonstrate that, although First Nations commercial and food fisheries have become separated within historical, legal and policy contexts, 'real life' participation in these activities does not support such distinct separation. The distinction is a crucial one, as salmon and other ocean-bearing species are failing (Pauly and Alder 2005), and thus commercial fishing is highly restricted while calls for prioritizing First Nation food fisheries prevail. Prior to contact, the Nuxalk, like many First Nations did not culturally differentiate between fishing for sustenance purposes or for their traditional[16] economy (i.e. trade and barter). Nuxalkmc participation in the commercial salmon canning industry began in the 1800s. At the time, it was fiercely supported by missionaries and later colonists (LaViolette 1973) as a technologically new way of fishing and as a basis for assimilation through engagement in a wage economy. Still, the Nuxalk maintained reliance on fish resources for sustenance whether fish were 'taken on the side' from commercial catches, harvested for subsistence purposes using commercial gear, or caught using more traditional technologies from local rivers.

The high degree of engagement in contemporary commercial fisheries however, altered Nuxalk fishing activities in such a way that traditional food fishing and some linked aspects of the local informal economy became reliant on infrastructure and income provided by the commercial fishery. As First Nations' participation in the

commercial sector has been declining since the late 1960s because of fisheries management strategies, the effects of these policy and management changes have also been felt in the food fishery. Furthermore, there has been subsequent disruption in the local informal economy, and the safety-net function that these systems provide to the Nuxalk people. As Turner et al. (2008:3) confirm: "policies that destroy traditional economic systems and affect people's security and capacity for resilience have been little addressed in contemporary legal systems." Analysis throughout this *Chapter* will attempt to address the nature of *loss* associated with the regulation of the commercial fisheries and the Nuxalkmc informal fishing economy.

This *Chapter* is divided into two sections that, together, demonstrate how the Nuxalk Nations' commercial and food fisheries have become interdependent. What becomes apparent is that the decline in commercial fishing participation is negatively impeding the Nuxalk Nation's ability to access traditional food resources central to the local informal economy, and to community well-being more generally. For some individuals, the current constraints in the food fisheries mean that they can no longer access food resources necessary for survival. Specifically, section one documents how First Nation engagement in fishing activities have changed since European contact - from the salmon cannery era when First Nations were central participants – to more recent time when rationalization policies beginning in 1969 began to marginalize First Nations from the commercial fisheries. Throughout this section I highlight the ways that fishing infrastructure and practices have transcended the modern-day boundary between First Nation *commercial* and *food* (subsistence) fishing activities. In section

two, empirical data from interviews with members of the Nuxalk Nation is used to investigate how the practical integration of *commercial* and *food* fishing activities have been altered as a result of commercial rationalization policies. More specifically, analysis will focus on how the loss of fishing infrastructure and income has affected the Nuxalk informal fishing economy.

Section 1: Traditional Fishing, Colonization and Fleet Rationalization

Traditional Fishing in the Nuxalk Context

Over generations, the Nuxalk developed a diversity of methods for harvesting salmon including stone traps, weirs, and dip nets (McIllwraith 1992). Colonization and technological advances have meant that most of the traditional methods are no longer used. Today most fishing is done using drift nets in the local river, or offshore using commercial fishing boats. Irrespective of changing fishing methods, the importance of salmon has remained a constant. For the Nuxalk, dependence on salmon has also meant a healthy reliance upon, and maintenance of cultural patterns of food consumption, control of the resources. It also provides a means through which traditional rights have been realized, affirmed and asserted despite powerful counterforces affiliated with colonization (Winbourne 1998:67).

Five species of salmon have traditionally been harvested by the Nuxalk (spring, sockeye, pink, coho and chum), but stock declines have continued to result in conservation requirements for sockeye and coho so that mostly spring and pink are harvested today. Fishing for salmon once took place throughout Nuxalk marine

territory; however, food fishing is now largely confined to the lower portions of the Bella Coola River.

The harvesting and processing of salmon and other marine resource (such as eulachon) traditionally involved most members of the family. Men would be responsible for fishing, while women would work in processing capacities, often with the assistance of their children. Extended families (clans) would work together, and share resources such as smoke houses. They also, in a more casual manner, simply gathered together by the river to watch fishing activities and socialize. As Winbourne (1998) points out, the harvesting and production of salmon was also central to traditional culture[17] of the Nuxalk Nation.

> Harvesting and processing activities help maintain important connections to the land and provide opportunities for extended family groups to gather together. Children learn by watching and participating. They not only learn ways of harvesting, gathering and preserving resources, but also traditional ways of relating to the land, stories and songs connecting people and place, and appropriate codes of conduct for resources use (P. 67).

The preservation of salmon has also evolved with the introduction of new canning, jarring, and refrigeration technologies. For the most part, however, salmon continues to be traditionally smoked, barbequed and processed as slak'q – a highly valued smoked and wind-dried form of salmon that is consumed throughout the year and used for trade purposes.

[17] While I recognize that practices designated 'traditional' can be so assigned for political purposes and that some traditions are ephemera, others are enduring. Salmon, for example, is integral to Nuxalkmc tradition historically and presently.

Traditional Patterns of Trade

Traditional trade patterns were critical to the survival of coastal First Nations in addition to contributing to the development of complex societies. Nations of the Northwest coast were versed in the practice of trade and barter long before Europeans arrived. Prior to contact they possessed a rich and vibrant economy largely built upon the salmon resources. As Newell (1993) aptly notes:

> For thousands of years, Indians harvested all types of aquatic resources, preserving most of the harvest and using it for subsistence, trade, and ceremonial purposes. These people were accomplished traders, and fish was a major trade item in aboriginal British Columbia. . . . Variations in supply and differential distribution helped to link families in a web of production, co-use of sites, and exchanges of goods (P. 28).

These harvesting, production, and exchange activities contributed to a prosperous informal economy. Trade partnerships extended throughout the province and these social networks provided access to food diversity and preserved distant friendships and kinship ties. In the Nuxalk context, food fishing activities have been integral to maintaining culture and identity. Often, food fishing brought people together and was an opportunity to share cultural stories as well as to build bonds and foster trust. Thus, the food fishery was, and continues to be, an important way of maintaining social cohesion and fostering participation and interaction among members of the community.

When Europeans arrived in the early 1800s, new trade partnerships developed throughout the province, such as those with the Hudson's Bay Company. Fish resources – especially salmon, became the currency for trade and exchange with settlers and colonial agents and brokers (Newell 1993:30). The willingness of First Nations

throughout the coast and interior to trade with Europeans illustrates both pre-existing economic systems among coastal First Nations, and the importance of salmon and other marine resources to this system. The historical networks of production and exchange are also relevant in contemporary informal economies operating in First Nations communities today. The significance of these networks and the social organization related to fishing will be discussed in *Chapter* 4.

Although the physical, spiritual, and cultural importance of salmon remains to this day, colonization of First Nations territories throughout the province of British Columbia forever changed the practice and economics of fishing. As fishing and related activities were tied closely to social and cultural aspects of First Nations' life, so too were these altered over time as access to these resources were increasingly regulated by the crown, and what would later become the provincial and federal governments of Canada. The next section will provide a brief account of the colonization as it related to First Nations use of fisheries resources, and participation in the salmon canning industry. The pages that follow will also illustrate how subsistence and economic fishing practices became differentiated, yet structurally interdependent.

Colonization and Canneries: The Transformation of First Nations Fisheries

When Alexander MacKenzie arrived in the Bella Coola Valley in 1873 he was the first European to make contact with the Nuxalk (Wamsley 1987:5). As the introduction of European settlement began to take place throughout the province, the development of the fur trade soon followed. Up until 1858 the region was still not under formal colonial authority, but by 1871 British Columbia joined confederation. This entry into

confederation fostered economic growth throughout the province, including the commercial fisheries.

This era of development also contributed to the *colonization* of First Nations; a term used to describe a process that, according to Frideres (1983:295-6) includes: geographical incursion, sociocultural dislocation, the establishment of external political control and economic dispossession, the provision of low-level social services, and, finally, the creation of ideological formulations around 'race', which positions the colonizers at a higher evolutionary level than the colonized. In the context of the First Nations of British Columbia, colonization has been an ongoing process representing the relationship between the Canadian state, settler societies, missionaries, and others (Kelm 1999:xviii). The term *colonization* is used throughout this thesis in reference to actions described by Frideres (1983) that have largely taken place from the 1860s until the mid 1900s, although some forms of colonization have extended into the 1980s (e.g residential schooling) and even to the present day (e.g. the Indian Act still in law today, but having originated in 1876).

Certainly, colonization has been strongly tied to the control of natural resources throughout the province. As settlement and economic expansion continued throughout the 1880's the demand for both fish and lumber increased as did opportunities for rural (often First Nation) communities to engage in the new capitalist, resource-based economies. By the 1880s the salmon canning industry was growing throughout the Pacific Northwest coast, capitalizing on First Nation and Asian workers to fill the labour intensive canning process and meet the voracious demands of overseas markets.

During this time, First Nations began to integrate much of their traditional fishing, social activities and family life with their work in the fishing industry and cannery sectors (Newell 1993:4).

Canneries grew through the coast, fueled by what appeared to be an endless supply of salmon. By 1900 there were eighty-three canneries operating and by 1905 there were nearly 1,200 First Nations cannery workers employed in this sector (Knight 1996:180,193). Throughout the fishing season, countless individuals traveled to partake in the canning industry. Even Nuxalkmc ventured as far as the Fraser River seeking employment (ibid:182) and, when canneries were operating in Bella Coola from 1900-1930, both men and women found work there; men as fishermen and women as cannery workers. Nuxalkmc participated to such an extent that most of the Nuxalk community moved across the river as seasonal patterns of settlement became reorganized and traditional Nuxalk existence began to incorporate commercial fishing activities.

The claims of historians are, equally, verified by Nuxalk community members, who readily characterize their practices during the canning era and/or through to the 1940s when several processing companies operated locally:

> *I remember most of the people were working for the two companies, B.C. Packers and Canadian Fishing. The village used to be deserted, everybody was living down cannery. Most of the people that I remember [were using] rental Japanese boat[s]after the war. Then-- it was good, it was a good life. Everybody was working [in] them days (Respondent No.03, past commercial fisherman).*

> *I guess this community . . . we were pretty active in the commercial fishery and food fishery. But in my early years, my late father, he was a commercial fisherman, my grandfather, my whole family and brothers, all owned gillnetters. That went back to the early '50s. I can remember commercial gillnetting with my*

> *dad and he worked for the Canadian Fish Company. And back then, they operated the Tallheo camp and there you could see, well, I would say, the fleet consisted of about 90 percent of Nuxalk fishermen. . . . That was ten percent [that] were from the valley, I think. . . And in the camp itself, the women were employed too, in repairing the nets. So our whole community was pretty well involved in the fishing industry (Respondent No.32, past commercial fisherman).*
>
> *In the Tallheo cannery they called the village out there No Mameesh [ph] and that's where the Indians camped out at, and then they started building houses there (Respondent No.18, past commercial fisherman).*

It was not uncommon for fishing companies to locate processing facilities near First Nation settlements in order to secure access to workers. As a result, fishing camps and cannery settlements often took on aspects of First Nations communities, with workers building dwellings and displaying cultural patterns that integrated traditional practices of subsistence with the market economy. In the following excerpts two authors articulate how traditional activities and new practices related to the commercial fisheries became incorporated.

> To the gratification of the canners, they [First Nations] even built their own shelter, fashioning houses from split cedar, matting and the old scrap of tinplate from the cannery. They lived and ate much as they did at home, harvesting salmon, sturgeon, clams, cockles, and oolichan (Meggs 1991:27).
>
> Indian fisherwomen helped crew the mosquito fleet of handline trollers, cod boats, and halibut hunting canoes which took fish both for subsistence purposes and offered surpluses for sale until well into the 1930s (Knight 1996:182).

These quotes illustrate the way that fishing for food and economic purposes shared a common place in the everyday lives of First Nation peoples. Not only did these communities participate in the cannery work, but incorporated traditional activities and harvesting methods into their new involvement in the commercial fisheries. This integration of commercial and food fishing made sense in their cultural context as

traditional economy depended on both the harvest of fish for sustenance or bartering and trading, to obtain other needed resources. That is, traditional patterns of harvest did not differentiate the type of fishing from the purpose of the harvest.

In contrast, the distinction between harvesting for subsistence and commercial purposes exists in current day First Nations' fishing contexts as if these fisheries are now identified and regulated as distinct fisheries. This differentiation was first imposed in 1888 when federal fisheries officers introduced new licensing regulations in the industrial fishery. In effect, this new regulatory approach "*. . . gave Indians the freedom to catch salmon to feed themselves; but officially, Indians had to compete on equal footing with others when salmon-fishing for commercial purposes"* (Newell 1993:47, italics added). Thus, First Nations were permitted to fish for food using traditional methods, but could not use their harvests for market purposes – neither in the formal economy, or their traditional (informal) economy.

These restrictions began the segregation of commercial and food fishing activities for British Columbia First Nations. As competition for salmon increased with the rise of the canneries, First Nations fishing was perceived as a threat to the expansion of the industry. As a result, differentiating between First Nations' *subsistence* and *commercial* fishing became a critical way that the commercial salmon industry could ensure control of the fishery resources and secure the supply of salmon to processing facilities. Over time, regulations increasingly reflected the objectives of the canneries to control First Nation fishing and in 1888 subsequent Federal regulations stated that:

> Indians shall, at all times, have liberty to fish for the purpose of providing food for themselves but not for sale, barter or traffic, by any means other than with

> drift nets, or spearing (Order-in-Council, 26, November 1888, Canada Gazette, Vol. xxiii, 965).

In 1915 this regulation was further amended to:

> Indians at any time, with the permission of the Chief Inspector of Fisheries, catch fish to be use as food for himself and his family, but for no other purpose (Order-in- Council, 11, September 1917, Dept. of Justice, RG 2, Vol.1178, LAC).

The premise behind this distinction was the belief that, because First Nations' traditional economy did not reflect formal market exchange as perceived by the colonists, their Aboriginal right to participate in commercial fisheries was unfounded. In the view of the regulators and their regulations, traditional First Nations' fishing was seen strictly for purposes of subsistence – not for a livelihood in the contemporary sense. Accordingly, the purpose of revising this section of the regulation was to prevent any challenge to the phrase "to fish for the purposes of providing food" that could be interpreted as the sale of fish for the purposes of purchasing other foods (Harris 2008:112).

This separation between fishing for food and economic purposes had profound implications for First Nations' societies on the Pacific Coast. Newell (1993) argues that it fails to capture the dynamic ways that fish resources are embedded in all aspects of First Nation culture and economy. The author contends that the distinction between fishing for food and economic purposes:

> . . . separated Indian harvesting and personal consumption of fish from economic, social or cultural purposes. As we have seen, the distinction between fishing for food and fishing for any other purpose was foreign to Indian culture and practice (P. 62).

Although it became illegal for First Nations to sell their food fish, some did not abide by this regulation and continued to sell to the canneries without a license, creating an informal economy between the two parties (Harris 2008:111). As with other industries, for instance logging where First Nations continued to use forest resources within their traditional territories despite ownership claims by forestry corporations (Rajala 2006:42)[18], such 'illegal' practices were in fact common place and so further highlight the speciousness of an imposed distinction between fishing for food versus economic purposes, particularly where First Nations were concerned.

As First Nations adapted their informal economies to capitalize on opportunities in the industrial economy, they continued to integrate traditional fishing practices with commercial activities. This occurred both by selling food fish within an informal economy and by using commercial catches for sustenance purposes. These practices (in a limited way) still exist today. A number of individuals interviewed reported that food fish is illegally sold outside the community on a regular basis[19], although no evidence of this was encountered in the research interviews. However, this is not a new issue in the community. In 1994 a River Guardian program was implemented under the Aboriginal Fishery Strategy to monitor the illegal sale of food fish from the Bella Coola Valley (Winbourne 1998:111).

[18] Since the 1800s much land declared as traditional territory by First Nations were designated as Crown property by the provincial government and sold to forestry corporations. This promoted First Nations land claims and demands for adequate resource access (Rajala 2006:42) that, in some form, are continued by numerous Nations to the present day.

[19] The Nuxalk as a Nation do not support the sale of food fish. Some suggest it is bad luck, others feel it is culturally inappropriate to sell their traditional foods today. The sale of food fish by the Nuxalk is prohibited under current fishery regulations.

In addition to Crown control of First Nations' food fishing for the purpose of selling or trade, the very reserve land system itself - still in place today - was designed to control access to fish resources. Harris (2008) argues that the initial placement of First Nation reserves by the federal government was directly influenced by the proximity to fish resources.

> *. . . the amount of reserved land was too small and its quality too poor to enable* them [First Nations] to maintain viable economies in their traditional territories . . . to the extent that Dominion and provincial officials sought to justify the unusually small reserve acreage in British Columbia, they did so on the grounds that Native peoples on the Pacific coast were primarily fishing peoples who did not need a large land base. . . . In many parts of the province, the control of land – as a place to set a net or drag it ashore, as a rock form which to work a dip net, as a point of departure or return from fishing expeditions, or as a place to process fish – secured control of a fishery. This would change in the twentieth century as the widespread dissemination of gasoline-powered boats, refrigeration, and other technological changes created a much more mobile fishing fleet, but when Canada and British Columbia constructed an Indian reserve geography, the land/fish nexus mattered. Control of local fisheries provided a means, often the only means, of living off the land (P. 6).

The perception by federal planners was that First Nation peoples of coastal British Columbia were centrally dependant on marine resources. It was generally accepted by those responsible for the planning of the reserve system that this extensive engagement in coastal fishing precluded First Nations from needing large portions of land (Harris 2008:6; Newell 1993:55). Thus, reserve lands allotted to First Nations throughout coastal British Columbia were mere fractions of their traditional territories as the size of many reserves reflected the assumption that local economies would be dominated by fishing. Such reserves were often a "postage-stamp-sized land base, averaging about 5ha per Indian" (Newell 1993:56). During the reserve allocation process some individuals, including the provincial Attorney General George Walkem are

known to have legitimized this practice on the basis of an anticipated commercial fishing economy and the, at least covert, suggestion that a protestant work ethic and profit motive should also prevail. This is most evident in General Walkem's reference to avoiding the allocation of "large tracts of land" for fear that it might "divert them" [from the formal economy]:

> . . . granting large tracts of land to Indians would simply divert them from more lucrative economic activities, such as fishing, which in turn would inflict 'a serious injury upon them and the Province (Newell 1993:57).

Although initially, the placement of Reserve sites (on land) were largely intended to secure access to fishery resources (in the marine environment), the growth of the cannery sector would later influence the disintegration of the land/fish nexus. This would further limit First Nation rights to the marine resources that were viewed as common property by the colonists, and therefore negated First Nation ownership or rights to the resources.

> In the 1870s, and coinciding with the rapid emergence of a canning industry, Canada's Department of Fisheries undertook to unravel the connection between land and fish. It sought to ensure that any proprietary interest held by Native peoples in their reserves remained on dry land; the exclusive rights that characterized the occupation of land, Fisheries maintained, did not extent to the fisheries. In fact, the Department of Fisheries based its opposition to the recognition of Native fishing rights on the grounds that while land, including Indian reserve land, might be held as private property, the fisheries were common property (Harris 2008:8).

Thus, the reserve system also placed critical restrictions on opportunities for resource use both on the land and from the sea. By controlling the land that First Nations inhabited and encouraging fishing as a central economic activity, the government then secured control of most First Nations' resource access and placed

them at a potentially greater dependence on fishing economy. This largely dislocated First Nations from traditional fisheries and other resources in their territories

The Bella Coola reserve was one of nearly 750 throughout British Columbia that was designated specifically for its importance to catching or processing fish (Harris 2008:7). Fishery regulations would later allocate the lower four miles of the Bella Coola River for food fishing purposes. This, combined with the concentration of the Nuxalk on a reserve near the confluence of the Bella Coola River and North Bentinck Arm, has meant that many of the Nuxalk traditional fishing locations experience limited use today (pers. com., local Nuxalk Nation resident). For the Nuxalk, like other Nations throughout the coast, the irony of reserve placement specifically for a commercial fishing economy was realized later during fisheries rationalization beginning in the late 1960s, resulting in the marginalization of First Nations from the very fisheries that regulators encouraged. This has left the community with few options to participate in the wage-economy and a resource base that is a mere fraction of their traditional territory.

While the scope of First Nation access to a more extensive locally controlled food fisheries was being restricted, so too was early participation in the commercial fishery. The concession that First Nations' could "compete on equal footing with others when salmon-fishing for commercial purposes" was far from a reality (Newell 1993:47). In the late 1880s, though First Nations were permitted to hold commercial licenses, they were often unable to obtain them or were physically prevented from fishing as their gear was sometimes destroyed by non-First Nations fishers (Harris 2008:110). Additional regulations revoked traditional food fishing practices for working First Nations, or those

considered able to work in the wage economy. These individuals were declared ineligible to obtain food fishing permits; only individuals who 'needed' to fish for sustenance could do so (Harris 2008:111).

By 1917, food fishing was further restricted by requiring a federal permit and became subject to the same limits as the industrial fishery including restrictions on fishing area, gear type, fishing times, and seasons (Order in Council, 11, September 1917, SC, 1918). By restricting First Nations engagement in food fishing activities, the government further dislocated traditional and economic practices, creating additional reliance on wage-employment in resource-based economies such as logging and fishing. Yet, despite restrictions imposed on food fishing, First Nations maintained the consumption of traditional foods either by accessing them in the commercial fisheries, or from subsistence activities.

However, many First Nation communities came to rely on the wage economy provided in the commercial fisheries, as government agents such as General Walkem had intended. Later in time, this reliance on the formal economy would prove to be detrimental for First Nations' as government policies aimed at rationalizing the commercial fisheries in the late 1960s largely excluded First Nations' participants. In particular, First Nation dependence on the commercial fisheries, and the demonstrated practices of integrating commercial and subsistence activities created challenging outcomes for Coastal First Nations. As we shall show, the declining participation in the commercial sector, also became an obstacle especially relevant to accessing traditional fish resources central to the informal economy. That is, once commercial infrastructure

and income were removed from coastal communities, the means to harvest fish resources for subsistence purposes also became more difficult.

The following section briefly documents trends in First Nation participation in the commercial fisheries from the cannery era until the late 1990s. By presenting an assessment of fisheries rationalization policies, analysis will demonstrate how First Nations have been marginalized from the contemporary commercial fisheries, and we will discuss the implications of this for communities that had come to depend on this resource-based industry.

Contemporary First Nations Participation in the Commercial Fisheries and Subsequent Marginalization

The immense growth of the canning and commercial fishing industry from the 1800s onward exploited the salmon resources throughout British Columbia to the extent that by 1890 the canning industry was one of the three most important income earners in the province (Knight 1996:180). In three of the most productive years for the canning industry (1926, 1928, and 1930), salmon landings exceeded 200 million pounds (Sinclair 1960:23). In addition to the capital being used by fishermen already in the industry, new fishermen continued to enter the industry leading to further capacity expansion. Nearly two thousand new vessels entered the industry between 1956 and 1965 bringing the capacity from 7650 to 9593 vessels with most representing the trend toward larger, more efficient boats (Marchak et al. 1987:122). While some years were profitable, excess fishing capacity created economic inefficiency in the fleet, and threatened the stability of the salmon stocks.

As the industrial sector expanded and technology improved, First Nations were often financially unable to keep up with such advances primarily because they had difficulty securing credit because of limited capital. Those fishermen who managed to stay in the fishery often did so by renting vessels and licenses through canneries or fish companies (Newell 1993:135). Still, for First Nations communities that relied on the industry, this source of employment was critical.

By the 1960s regulators raised concerns that the commercial fishery was too large and was negatively affecting both the sustainability of the salmon resources and the economic efficiency of the industry (Grafton and Nelson 2005:5). The approach taken to address this overcapacity is referred to as rationalization whereby resource managers attempted to reduce the excessive fishing and processing capacity to create a more economically efficient industry. To achieve these goals two key strategies were implemented – the Davis Plan (1969) and the Mifflin Plan (1996). Throughout this time, other smaller strategies were implemented to restructure the fleet, however most changes in the fishery were a product of the Davis and Mifflin Plans and these initiatives will therefore be the focus of this section.

1969 - The Davis Plan (The Salmon Vessel Control Program)

The Davis Plan was the first strategy to address the inefficiencies that plagued the fishery and circumvent what was defined as the 'tragedy of the commons'. This strategy was preceded several years earlier by a federally commissioned assessment of British Columbia commercial fisheries by agricultural economist Sol Sinclair (1960). His recommendations included a freeze on the expansion of the sector, a reduction in the

number of vessels, and the implementation of designated fishing areas (Sinclair 1960). These recommendations were not operationalized until the Davis Plan in 1969 (Grafton and Nelson 2005:5) when regulators implemented fleet modernization, limited entry licensing, and a suite of other methods (Marchak et al. 1987:120).

The key components of the Davis Plan included the designation of license classes (A, B, and AI) and the buyback of fishing vessels. 'A' licenses were assigned to individuals who were determined to obtain their principle livelihood from fishing with catches over 10,000lbs per year. Fishermen who caught less than this were assigned temporary 'B' licenses that were to be phased out in 10 years (later extended to 15 years). These designations were to ensure that part-time licenses were gradually removed from the fishery (Grafton and Nelson 2005:5). In 1971 reduced-fee 'AI' licenses were made available to First Nations at an annual cost of $10, rather than the full $200 fee, in order to assist First Nations fishermen in obtaining a full-time 'A' license (ibid).

A report by Wood (2001:8) notes that of the total 6603 licenses issued in 1968 only 1178 were First Nations owned or operated. Those who were already fishing on the periphery of the industry with poor quality, inefficient vessels accounted for a significant proportion of catches below 10,000lbs and therefore many First Nations were assigned temporary 'B' licenses and eventually phased out of the fishery. Another barrier for First Nations fishermen with boats in poor condition was vessel quality standards implemented in 1973. Those fishermen who could not meet these standards were also eliminated from the fishery.

Other small-scale First Nation fishermen who relied on leasing company boats lost their ability to access the fishery when companies consolidated their fleets – by merging small tonnage licenses to form single licenses for large vessels (Wood 2001:1). First Nation individuals indebted to fishing companies were often forced to retire their vessels once this source of capital was no longer available (McKay 1977:20). As companies consolidated their fleets, the older fishing vessels, again often operated by First Nations, were the first to be removed from the fishery.

Another central component of the Davis Plan was the license buyback that took place between 1970 and 1973. The purchase of voluntarily retired licenses effectively removed 350 class 'A' salmon licenses (Marchak et al. 1987:125) and by 1976 the fleet had been reduced by approximately 17 percent (to less than 5000) (Grafton and Nelson 2005: 5). Individuals wishing to purchase new vessels were also required to purchase a second license *"such that the gross tonnage of the two existing vessels was equal to or greater than the replacement vessel*" (Grafton and Nelson 2005:6). As most of these vessels were small scale gillnetters or trollers (Newell 1993:53), the actual capacity of the fleet increased by half as a result of vessel size-increases, gear improvements and the move toward efficient, high-powered seiners (Fraser 1979). By 1980 it was estimated that the increased vessel size, and technological advances had doubled and possibly tripled the capital value of the fleet (Grafton and Nelson 2005:6). This essentially pushed out many First Nations, small-scale fishermen unable to compete with technologically advanced vessels (Muse 1999:4; McKay 1977:19). Other First

Nation fishermen chose to sell their licenses to take advantage of the sellers market. However, once any fisherman left the fishery, re-entry was unlikely:

> In effect, all marginal fishermen were forced out and this meant many Indians were forced out of the fisheries. In addition, the increased value of the vessels through license limitation eliminated the possibility of many Indians to participate in fishing (Native Brotherhood of British Columbia 1981: 78).

In the wake of the Davis Plan extensive plant closures swept the coast, and all processing facilities on the Central Coast closed (Meggs 1991:193). In many rural First Nations communities, processing facilities were the main employers and many people were left unemployed with few economic alternatives:

> The immediate result of the Davis Plan was that BC fishing and fish-processing employed less than half as many Indians as they had two decades earlier (Newell 1993: 148).

With few employment opportunities in these communities, welfare rates increased substantially (Newell 1993:157). The comments of Pearse (1981) generally summarize the extensive impact of fleet rationalization on First Nations fishing communities in coastal British Columbia, highlighting not only the economic impact but the unanticipated social outcomes:

> [The displacement of Natives from the commercial fisheries] has generated serious economic and social distress in Indian communities, many of which offer no alternative employment. The relative immobility of Indian people has left them heavily dependent on unemployment insurance and welfare payments. This is costly to the taxpaying public and, at the same time, inflicts high costs on the Indians themselves in the form of idleness, dependency, demoralization and social and personal breakdowns (P. 156).

Despite the realization that the Davis Plan did little to address overcapacity in the industry, and the severe social and economic consequences for First Nations, another rationalization strategy was implemented in 1996, the Mifflin Plan.

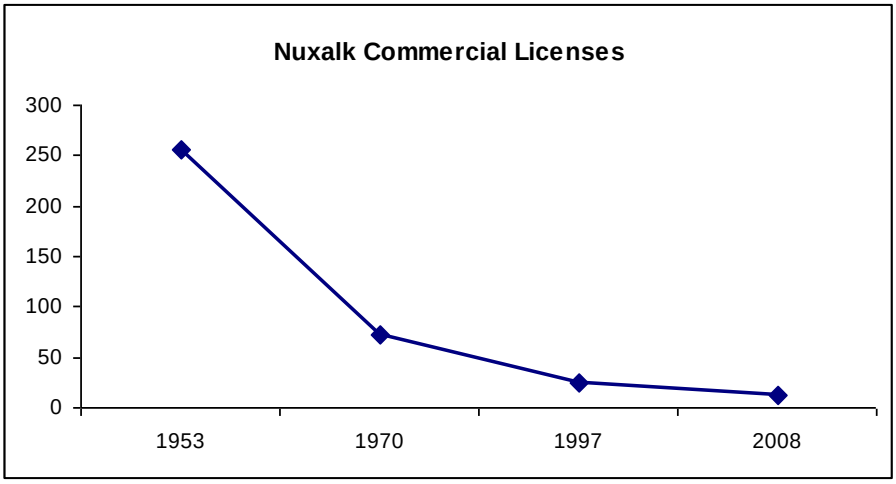
1996 - The Mifflin Plan

By the early 1990s the British Columbia salmon industry was once again in crisis due to both resource decline and poor markets (Muse 1999:v). The strategies of the Davis Plan to reduced capacity in the fleet had not produced the desired effect, but had resulted in increased capacity (see above). In 1996 the Minister of Fisheries at the time, Fred Mifflin, attempted to address the faltering fishery by developing the Pacific Salmon Revitalization Strategy, more commonly known as the *Mifflin Plan*. The aim of this plan was *"to conserve the resource and improve the economic viability of the license holders"* (Muse 1999: 7). This was to be achieved through a reduction in the salmon fleet by 50 percent. Again grounded in the limited-entry approach to management, the Mifflin Plan included the purchase of existing salmon licenses, and the 'stacking'[20] of active licenses to consolidate the number of vessels (Muse 1999:iii).

With a downward shift in the supply of British Columbian salmon, and declining salmon prices as a result of increased global supply due in part to the introduction of farmed salmon, the opportunities to exit the commercial fishery afforded by the Mifflin Plan seemed attractive to First Nations fishermen, many of whom had incurred substantial debt to remain competitive during the previous years of fleet restructuring. From 1996-2000 the Mifflin Plan and related buy-back programs were under way. Despite the government's commitment to purchase fewer First Nation licenses, AI seine licenses decreased from 65 to 19 and AI troll licenses from 517 to 187 (Wood 2001:17).

[20] "Stacking" refers to the accumulation of multiple licenses on a single vessel.

Figure 3: Decline in Nuxalk Commercial License Holders



Further losses of Nuxalk participants in the commercial fisheries continued during the Mifflin Plan, as illustrated in Figure 3. Compiled using various data sources, this graph depicts the steady decline in Nuxalkmc licenses over the years that the Davis and Mifflin Plans were implemented, and until present. More specifically, Hawthorne et al. (1958) calculate 256 Nuxalkmc commercial license owner/operators in 1953. By the 1970s, the number of participants declined substantially to 72 licenses (Boland 1974).[21] As a result of her research in the community, Winbourne (1998) calculates a total of 25 in 1997. The most recent license estimate of approximately 12 active licenses in 2008 is estimated based on field research and communication with current Nuxalkmc fishermen. By using these data, we estimate that since 1953 the Nuxalk have experienced a drastic decline in commercial licenses by approximately 95 percent (Figure 3). [22] [23] As a result, many fishing boats have been removed from the community

[21] This number of 70 licenses includes both First Nation and non-First Nation license holders and was utilized because no other estimate of Nuxalk licenses could be found for that time period.
[22] Several current license holders indicated that they intend to sell their licenses to the government buy-back program in the coming years.

as commercial licenses were sold or repossessed during the years of fleet rationalization and license buy-backs.

The decline in First Nation participation in the commercial fisheries prompted several initiatives to address their marginalization. Commercial fishing assistance programs created by First Nation organizations and Government departments such as Indian and Northern Affairs Canada have had little success in maintaining participation in the industry since fleet rationalization began. Several years prior to the Mifflin Plan, Newell (1993) commented that:

> In the new North American climate of Indian cultural renewal and political activist, BC Indian groups and several government departments and agencies devised many special programs in the 1970s to increase, or at least stabilize participation by Indian fishers and shoreworkers. Dozens of studies and commissions have concluded that, despite special assistance, only the already highly successful have been able to stay in industrial harvesting (P. 149).

Although Newell's comments pre-dated the Mifflin Plan, her observations were prescient as the cumulative impacts of later rationalization strategies were extensive for First Nations. Fishing had become an important way of life for communities who defined themselves by their participation in the commercial fishery. Licenses were often passed on from father to son, or to another member of the family and so the retirement and sale of licenses to the government often meant that the youth had few opportunities to enter the fishing economy as fishermen, or even in fishing related employment. This marginalization from fishing, combined with the small size of coastal reserves, left few economic alternatives for both First Nation and non-First Nation communities in isolated areas of the province.

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[23] Some individuals may hold multiple licenses (ie. salmon and halibut) and have multiple fishing boats

License buy-backs continue today throughout the province. In the Nuxalk Nation, 13 licenses have been lost from the community in the past 11 years, either being purchased by the government or sold outside the community through private sales. This trend has left a total of only 12 current license holders. Several Nuxalkmc who were interviewed reported to be considering selling their licenses in the next few years. It is undeniable that First Nation fishermen should have the same opportunities to sell their commercial licenses as any other stakeholder group in the fisheries. However, research findings demonstrate that the loss of licenses has resulted in additional consequences for the social organization and well-being generated through participation in the local informal fishing economy.

Section 2: On the Implications of a Declining Fishery for Resilience and the Informal Economy

It is reasonable to expect that a decline in commercial fishing would also lead to new adaptation strategies to compensate for the loss of economic revenue and related fishing infrastructure. In the following section, I will address how a decline in the commercial fisheries has placed new limitations on food fishing practices and altered engagement in the local informal economy.

What is the Informal Economy?

While the *formal* economy consists of activities and transactions that are accounted for within a state-regulated legal market and regulatory framework, the *informal* economy:

> . . . refers to the production, distribution and consumption of goods and services that have economic value, but are neither protected by a formal code of law nor recorded for use by government-backed regulatory agencies (Ellison, Arsenault and Reimer 1997).

Included among the legal activities in the informal sector are: self-provisioning, barter, volunteer work, unpaid labour, caregiving, subsistence production, and pricing based on friendships and arrangements other than market prices (Reimer 2006: 25). In Altman and Allen's (1992) investigation into the Indigenous informal economy of the Aboriginal and Torres Strait Islander people in Australia he uses the term informal economy to encompass:

> . . . non-monetary, subsistence or 'own-account' production, as well as unmeasured monetary transactions. Concrete examples of the former type of activity include hunting, fishing, gathering, gardening, artifact manufacture and housebuilding for domestic use; examples of the later include production of arts and crafts for sale and small-scale commercial fishing (P. 138).

Dallago (1990:xix) claims that the informal economy includes those transactions *"for self-consumption or for persons directly associated with the agents (relatives, friends, acquaintances)."* For the purposes of this study, analysis will focus on informal activities related to subsistence fishing, including the harvest, production, consumption and exchange of fish and other marine resources. Consistent with Altman and Allen (1992), these activities may include self-provisioning or harvesting goods for the purposes of exchange or distribution. It was observed that, in the Nuxalk Nation, most

fishing transactions that take place are consistent with the parameters proposed by Dallago. That is, exchange of marine resources in the Nuxalk Nation is dominated by kinship and friendship ties, or other social ties that facilitate exchange.

There are several conditions that facilitate participation in the informal economy. Ellison et al. (1997:256) and Reimer (2006) suggests that these features can be categorized into five key criteria. Although Reimer (2006) uses these criteria to distinguish between rural and urban informal economies, they also provide useful categories to assess and evaluate the Nuxalk informal fishing economy and include:

- access to tradable resources;
- norms supporting generalized reciprocity;
- social networks;
- exclusion from formal economies and;
- knowledge and skills;[24]

Rural communities, almost by definition, provide *access to natural reso*urces. It is often an abundance of materials necessary to survival such as fish, wood, wildlife and game that often promote settlement in remote and dislocated areas. As Ellison et al. (1997:258) note, it is access to resources that enable participation in an informal economy. In addition, land, workspace, tools, time, and cash are also central resources that enable informal economies in rural communities. Although cash may be identified as being part of the formal economy, some funds are still needed to make transactions possible, for example fuel to run a fishing boat or to buy fishing nets.

In this *Chapter*, *access to tradable resources* is examined in relation to decreased Nuxalk participation in the commercial fisheries. Here, I use evidence from interviews

[24] Please see *Chapter* 1 for a detailed summary of each criterion.

to investigate how the loss of physical and economic resources from the formal, commercial sector - such as fishing boats, equipment and cash - have affected participation in the informal food fishery. Throughout this discussion, I will demonstrate how local patterns of fish production and consumption are, thus, being altered.

The three other conditions listed above that maintain the informal economy (*norms supporting generalized reciprocity; social networks; and exclusion from formal economies)* largely fit within the scope of social organization. As such, these characteristics are tied to mechanisms including social capital and social cohesion. The implications for these facets of the informal fishing economy are directly related social implications and will be the central focus of analysis in *Chapter* 4*.*

In the remainder of this *Chapter* I will focus on the structural and economic implications of decreased commercial fisheries participation experienced by members of the Nuxalk Nation. This discussion includes an analysis of how lost fishing infrastructure and income witnessed over the course of commercial fleet restructuring has had local ramifications for participation in the informal economy. This analysis will begin in the following section with a discussion of how the Nuxalk have come to depend on commercial infrastructure for food fishing purposes. The fifth aspect of the informal economy *(knowledge and skills)* will not be addressed in this thesis because there are insufficient data to make any conclusions about this aspect of the Nuxalk informal economy.

Linkages between the Formal and Informal Fishing Economies in the Nuxalk Nation

Prior to the decline in the commercial fisheries, coastal First Nations maintained reliance on the informal fishing activities by engaging in traditional subsistence and exchange, not only to maintain cultural traditions such as potlatching, food production and distribution, feasting, and expressions of identity, but also to supplement commercial fishing and other seasonal or part-time employment. In their analysis of British Columbia's First Nations in the mid 1950s, Hawthorne et al. (1958) provided some attention to the domestic or informal economies of these communities and the importance of these systems in providing an economic safety-net. The authors note:

> Almost every Indian family is faced at some time or another with the problem of deficit financing. The continued dependence on wild life is an aspect of this, for wild life is the Indian's banker. The people turn to fish, game, and the resources of the forest to tide them over periods of unemployment and to enable them to use their cash for a wide range of purposes than would otherwise be the case (P. 223).

These patterns of resource dependence still hold true today and are echoed in the comments made by members of the Nuxalk Nation who were interviewed. In the following comment one commercial fisherman describes how dependence on local, traditional resources helps to sustain his community, despite the financial limitations created with the decline in the local formal sector.

> *Well, around here, you just got to rely on the fish, like, the leftovers in the river. That's the way we used to live before. We used to do the spring salmon, sockeye, pink salmon, dog salmon and coho. We used to do all those fish and then steelhead. You know, we were never poor. As people, we don't realize how lucky we are to have all this in place. Even though we don't have money, we're still rich in resources that could replace money (Respondent No.12, current commercial fisherman).*

Yet, in adapting to the local economic recession created, in-part, by the rationalization of the commercial fisheries, much of the Nuxalk community has come to rely on the informal system to access needed resources of all kinds, and to maintain the social ties that promote community resilience. The comments of many Nuxalkmc demonstrate the significance of marine resource for self-provisioning, and facilitating the acquisition or exchange of resources that would otherwise be replaced by alternate forms of food sustenance purchased in the formal sector. The following respondent describes the importance of his fish production to securing food throughout the winter. In addition, he also notes that he has integrated non-Native fishing practices into his self-provisioning activities, further demonstrating the dependence on commercial infrastructure for food fishing purposes.

> *Yeah, I've been food fishing-- go fishing for it [salmon] and cut it and smoke it and that's the most important part of our lives here today is preparing for winter, eh. And that tradition still carries on. And I do long-lining, you know, not the Native way but the white man's way -- I do catch some halibut and cods (Respondent No.31, current commercial fisherman).*

Even for those employed in the commercial sector, reliance on the informal economy and self-provisioning is an important way to maintain their lifestyle and traditional practices. In the view of one individual, reliance on the informal economy is especially important considering the high degree of local unemployment, and declining participation in the commercial fisheries due to license buy-backs. In essence, the following statement actively represents the benefits of the informal economy, as it provides an alternative source of goods when the stability of the formal sector is uncertain (Reimer 2001:5).

> *. . . And the [commercial] season's so short; you're looking at like 12, 15 hours a week - max. . . . So we have to rely more on our cultural ways. Like hunting and going into the river and long-lining and crab fishing and I could see us going back into more on our Nuxalkmc ways [than the] the money ways, eh . . . because of these buybacks and job creation here (Respondent No.31, current commercial fisherman).*

The strategies used by the Nuxalkmc to compensate for a constrained formal economy are consistent with the literature. Reimer (2006:23) highlights the link between the informal and formal sectors in suggesting that the informal economy acts as a safety-net or buffer for structural changes within the formal sector. He suggests the informal economy *". . . provides an alternative source of goods and services should income be unavailable through the formal economy, the pricing too high, or the goods and services unavailable"* (2006:4).[25] As supported by the comments of those Nuxalkmc interviewed, this system can be critical to accessing needed resources, particularly during economic downturn in the formal sector.

For communities such as the Nuxalk that experience flux in their local economies - either as a result of public policy or other factors, the informal economy can foster resilience during times of hardship. In particular, rural, resource-based communities often benefit from these local exchange systems to compensate for economic instability often characteristic of boom-and-bust resource-based economies (Reimer and Apedaile 2000; Reimer 2006; Adger 2000; Harper and Gillespie 1997; Tickamyer and Wood 1998). Although the informal economy has always remained intrinsic to the Nuxalk, the decline in wage labour, and subsequent unemployment, appear to be increasing the importance

[25] It is important to note that engagement in the informal economy is not exclusive to the poor, or communities that are less progressive. For further discussion see Reimer 2006 and Ratner 2000.

of food fishing and hunting to some degree - as many Nuxalkmc turn to the natural resources in their traditional territory to sustain their community despite limited formal employment. For some, the informal economy is even central to survival. In the following quotes, respondents reiterate their significant degree of dependence on locally accessed marine resources for meeting dietary needs.

> *Yeah, I depend on-- probably a big chunk of my diet is from food fishing (Respondent No.36, current commercial fisherman).*
>
> *. . . we got to put it away for the winter -- to survive we do it (Respondent No.08, current commercial fisherman).*

As previously noted, when individuals or communities are excluded from participating in a formal economy, many come to depend on the informal economy to meet their needs (Ellison et al. 1997:259). As a result, factors that affect the integrity of the formal sector may also affect the informal sector (Ratner 2000:12). Portes (1989) discusses the policy implications of the informal economy when he refers to the interface between the formal and informal sectors. He states that:

> The development of the unregulated sector depends very much on the form adopted by the regulated one, for each, mirrorlike, reflects the other, or, to suggest an alternative analogy, both fit as parts of the same puzzle (P. 289).

Though he is referring to the affects of the regulatory system in determining what economic activities violate or bypass state regulation (Portes 1989:298), his statement is also relevant in recognizing how policy and regulatory changes in the formal sector, such as those applied to resource-based industry, can affect the functioning of the informal sector.

Our, research findings suggest that, in the case of the Nuxalk, public policies that have displaced Nuxalkmc from the commercial fisheries are now limiting participation in the informal economy. This is largely due to the loss of fishing infrastructure and financial resources needed for these activities. That is, the removal of material resources including fishing boats, gear, and cash, now prevents some members of the community from accessing traditional marine resources used for sustenance purposes, sharing, trade and exchange. As a result, this has undermined the very system capable of providing support to the community during the continued economic crisis and consistent exclusion from the formal sector.

"The Boat is our Livelihood": Declining Commercial Vessels and Implications for Resource Access

As Coastal First Nations became significantly involved in the commercial fisheries during the development of the canning industry, they integrated subsistence fishing practices with their involvement in the formal sector. By incorporating traditional methods of harvest with commercial infrastructure such as powered boats and fishing gear, First Nations became accustomed to using these infrastructures for subsistence purposes.

When the rationalization of the commercial salmon fleet began, the removal of commercial fishing boats immediately affected the ability of First Nations communities such as the Nuxalk to continue subsistence fishing and other resource harvesting activities. In essence, commercial fishing vessels and gear had become the tools

necessary for securing access to resources for the informal economy (*Cf.* Ellison et al. 1997). In a working paper on First Nation food fisheries written for the Department of Fisheries and Oceans, Friedlaender and Reif (1979) discuss how the Nuxalk Nation used commercial fishing equipment for food purposes:

> This [food] fishery uses an assortment of gear, depending on local circumstances. Drift nets and set nets are used in the lower portions of some rivers (e.g. Bella Coola) and short gillnets operated from skiffs are fished off some river mouths (e.g. Bella Bella). Typically, such fisheries are open four days per week. **To complement these fisheries, commercial gillnets and seines are used outside the commercial fishing boundaries**, **typically for one or two days at a time during commercial closed periods.** In several communities **both the non-commercial and the commercial gear are used** with the relative importance being determined by local characteristics (P. 7, emphasis added).

In one way, the incorporation of commercial gear with food fishing practices recaptures traditional First Nations perspectives on fisheries in a contemporary context, where fishing for food or traditional economy was not distinguished and gear was used interchangeably. Commercial fishing vessels not only provided the infrastructure to gather foods but income needed for operating fishing vessels and for the purchase of other items needed for subsistence production such as vehicles, fuel, canning equipment and even sugar. In other First Nations, authors have documented the impacts of fleet rationalization for informal activities, describing the negative consequences for food fishing, transportation and other activities important to these communities.

> . . . it created severe economic and social problems beyond those normally attributed to unemployment. For example, vessels were displaced that had been depended upon for food fishing and for transportation links with other communities (Pearse 1981:152).

Similarly, Newell highlights other indirect effects of the reduction of commercial fleets including impacts on peripheral economic activities such using boats for ". . . transporting tourists, freight, and beach-combed firewood and timber, and for conducting hunting trips (1993: 156)."

Wood (2001) also pays attention to impacts on food fishing practices. In the following quote he describes how the Oweekeno Nation has been impacted by the loss of commercial fishing infrastructure with new limitations placed on food fishing practices and mobility.

> Another impact of fleet downsizing is leaving fishermen and their communities with fewer or no vessels to use for food fishing and transportation. This especially hits communities that are forced to get their food fish at some distance away. This happens when salmon returns are poor in their local area, as has occurred in many areas recently. Without a fishing vessel for transportation and fishing, a community may be left without access to food fish. For example, the Oweekeno Nation members have lost all of their commercial fishing licenses, at least in part because of various government fleet rationalization initiatives. In 2000, when local salmon returns didn't allow a local food harvest, the Oweekeno people didn't have any appropriate fishing vessels to go to other possible fishing areas. Consequently, they couldn't meet their food fish needs (P. 37).

The Oweekeno and Nuxalk Nations have adjacent traditional territories on the Central Coast (see Figure 1). The Nuxalk now face constraints similar to the Oweekeno. As local stock declines, dependence on the river fishery and the loss of commercial vessels present challenges for many to obtain adequate marine resources. When interviewing members of the Nuxalk Nation, many discussed the lack of boat access as a significant barrier to obtaining traditional resources needed for sustenance as well as for local exchange. The following comments illustrate the importance of commercial

vessels to food fishing activities and other forms of subsistence harvesting such that food diversity is directly contingent upon access to these resources.

> *. . . everything we caught out in the inlet, on our boats was sold. But we could, like, jig for halibut and all that, though, that was for our own use, eh. We did that, like, crab fishing we did the same, too, we took that home (Respondent No. 12, commercial fisherman).*

> *For us the boat is our livelihood, -- we feed off it, you know. We go out in the Inlet and collect our food. If we didn't have the boat we won't be able to live without welfare, because you need the boat. . . . we used to do all our hunting and everything through the boats like the ducks and geese . . . bottom fish . . . shellfoods . . . and sea urchins. So that is basically our livelihood-- it's our life (Respondent No. 15, commercial fisherman).*

Indeed, the importance of boat access to the harvest and production of resources is a central predicament that fishermen contemplate when faced with the opportunity to sell their commercial fishing licenses. Some individuals, with the financial capacity, choose to keep their vessels in order to maintain their means of resources production. However, the sale of a commercial license often results in the sale of the fishing boat. Comments from those who sold their boats illustrate the significant implications for food fishing activities. Without boat access, many resources are exceedingly difficult to obtain. This respondent observes that once individuals lost their boats, they could no longer go food fishing.

> *But once they got rid of their boats, they weren't able to go out [food fishing] (Respondent No.02, current commercial fisherman).*

This has meant that patterns of traditional resource consumption have also changed. Marine resources such as clams, crabs, seaweed and halibut are not consumed or exchanged as frequently now that fewer boats remain in the community.

The following three comments illustrate the current food restrictions that have developed because of decreased resource access.

> *I guess that's the other thing that is missed too is, on the reserve site here … having a boat, there's a lot of things that they don't have now. That's clams, crabs, howlee we call it. There's a lot of stuff that we-- that they don't have here anymore on account of they got no boats now (Respondent No. 12, commercial fisherman).*

For some individuals, this changing infrastructure means that their consumption and exchange of some traditional resources has stopped entirely.

> *Interviewee: We used to go crab fishing and do everything.*
> *Interviewer: Could you still go and do that after you lost your boat?*
> *Interviewee: No. Had no boat.*
> *Interviewer: Were you still able to get any of that kind of fish or--*
> *Interviewee: Oh, just if my nephew gives it to us or my brother-in-law used to give it to us. But now we don't get any at all (Respondent No.37, past commercial fisherman).*

Another member of the community observes a direct link between access to traditional foods and the constraints placed on distribution of the resources. As a result, patterns of consumption are being altered in addition to the cultural ways that food is shared with family and friends.

> *Yup, the food [access has changed because of the decline in the commercial fishery]. People don't get to eat the traditional foods as much. I mean when did you last have a crab? ... See it doesn't get around as much. Before everybody had their boats; everybody was eating crabs you know when they came home from out there they fished crabs before they come in and then everybody comes to join in to eat the crabs, but now they don't do that. They sort of-- just only your family or immediate ones you choose to invite. You see the Natives always had boats, and they always did it, right? That's why they started the Native fishing. That was our life. . . . the boats are too expensive now to buy one (Respondent No.15, current commercial fisherman).*

As demonstrated in this section, the loss of commercial fishing gear has extended well beyond participation in the industry itself, and has had unforeseen

impacts for the local food fishery – the fundamental driver for the local informal economy. The loss of infrastructure has not only meant the diminished availability of traditional foods, but decreased consumption and social exchange of foods that embodies Nuxalk culture and traditional patterns of resources use. In *Chapter* 4 I examine these social and cultural outcomes in more detail.

"The Fuel Almost Kills You": Financial Constraints in the Informal Food Fishery

The previous comments made by the Nuxalkmc clearly illustrate how the removal of fishing infrastructure is creating significant constraints for accessing subsistence resources. However, exclusion from the commercial fishing industry has not only withdrawn fishing equipment such as boats and fishing gear, but also the financial resources to sustain food fishing activities. Even for individuals who wish to retain their commercial boats for food fishing purposes, the overhead costs for fuel, moorage and gear are unaffordable considering that much of the community relies on unemployment insurance or other forms of government assistance.

Exactly how the removal of cash from rural communities affects their informal economies has previously raised calls for further research. In his study of subsistence economies in Alaska, Lonner (1986) states that:

> The role and flow of cash in northern communities has not been research sufficiently. . . .it is not subject to the same rules of exchange and distribution although it may travel swiftly through communities with positive market economic and wage employment benefits. What is also needed is a study of how those without sufficient cash (for whatever reason) to purchase basic subsistence technology (rifles, ammunition, gasoline, nets) can capitalize their subsistence enterprise (P. 21).

In the Nuxalk context, findings demonstrate that fleet rationalization has

removed the cash needed to purchase necessary infrastructure. More specifically, without the income from the commercial sector, people who wanted to retain their commercial fishing vessels for food fish frequently face costs that are prohibitive. The subsequent lack of fishing income also limits people's financial ability to afford the secondary resource needed to engage in food fishing such as fuel, fishing gear, trucks and other equipment. The following comment illustrate the costs associated with participating in food fishing activities, and the current degree of financial restrictions individuals are facing.

> *'Lot of people don't even get a lot of that kind of food. A lot of people haven't had seaweed for a long time. Some people haven't had halibut for a long time. Same with clams and-- a lot of people haven't eaten clams. Yeah. Cost too much money to go and do those things, eh. Yeah, fuel almost kills you (Respondent No. 36, current commercial fisherman).*

Even for individuals who are able to keep their commercial vessels, the operating costs can prevent them from food fishing.

> *Because a lot of the people with boats, too, they are still unable to go [food fishing] even though they have boats because their income is so low they can't afford the fuel just to go out and get these food fish (Respondent No.23, past commercial fisherman).*

In addition to the costs illustrated above, moorage fees at the local marina present additional constraints. A number of respondents identified this cost as a further limitation to owning a fishing boat needed for food fishing. For a number of individuals it appears that the moorage fee is a critical expense that prevents people from keeping their fishing boats, or purchasing a boat for food fishing purposes. Although there were numerous comments made about the excessive moorage fees, the following three quotes represent the common grievance.

Just to park your boat out there it costs a lot of money. It's the wharfage. . . . the people who sell their license they tried to keep their boat for the sea fishing for the traditional food fishing, but they find out they're paying for their food fish by the wharfage (Respondent No.41, current commercial fisherman).

He sold his license [in a buy-back] and he tried to keep his gillnet boat but it was so expensive to keep it tied up down at the wharf (Respondent No.38, past commercial fisherman).

They can keep the boat if they want to but it's costly. Hundred bucks a month moorage fee. That's $1,200 a year just to moor the boat down here. I was going to buy a boat but the moorage fee—[it costs] too much (Respondent No.28, past commercial fisherman).

These findings are consistent with those of Ellison et al. (1997:259) who claim that, even through the informal economy is a non-monetary exchange system, certain amounts of cash resources are essential. This argument is further supported by one Nuxalkmc who articulates the importance of money in order to engage in food fishing activities.

Even [fishing for halibut, cod, crabs and clams] cost[s] money, you know, just to start up your boat and go somewhere it's a thousand bucks. You still need money for that (Respondent No.31, current commercial fisherman).

The research of Ellison et al. (1997:265) indicated that minimum income levels are a predictor for engagement in this system. For example, an annual income of $15,000 to $30, 000 is found to increase participation in the informal economy (ibid). This is consistent with Wolfe's (1979:32) study of subsistence resources in an Alaskan Yup'ik Eskimo village. The author found that "*rather than decreasing his subsistence use, larger monetary incomes enabled a producer to produce more subsistence foods than a producer with small monetary income."* In 2001, census data revealed that earning members of the Nuxalk Reserve held an average income of $14, 950 (Statistics

Canada 2001). These data not only demonstrate the financial constraints the Nuxalkmc are facing, but also why extra costs such as fuel, fishing gear and moorage are burdensome to individuals and families that have been marginalized from the commercial fishery or the formal economy more broadly.

The overall impact of the diminished Nuxalk participation in the commercial fisheries has effectively decreased food diversity as illustrated in the comments above – *"'Lot of people don't even get a lot of that kind of food - seaweed. . . halibut . . . clams. . . ".* As a result, many Nuxalkmc have turned to the local salmon food fishery because it offers a much more economical opportunity to harvest foods and maintain some degree of resource access and exchange. However, this reliance also has implications for local abundance and availability of salmon, and fails to fully meet the current needs of many in the community. Issues related to the increased reliance on the local river fishery are discussed below.

"Too Many Boats and Too Few Fish": Shifting Dependence on the River Fishery

No longer able to engage in an ocean fishery, many Nuxalkmc now seek their fish supply from the Bella Coola River fishery. Requiring little more than a skiff, truck, nets, and skilled fishermen, harvesting from the local river is ultimately a more cost-effective and readily available method than is fishing offshore. This fishery takes place in the lower portions of the Bella Coola River each year and is performed as fishermen cast their nets, and drift down the river with the current. With luck and skill, their nets catch various species of salmon, such as chum and pink. Because of the relatively low investment required, local residents are witnessing increasing numbers of people fishing

the river each year, sometimes to the extent that fishing is impeded. The following comment illustrates the local circumstances by describing the shift towards the local fishery once boat access became compromised. Although some individuals are still able to use commercial boats for food fishing, those using the river are competing for increasingly scarce resources.

Interviewer: *Has the number of people fishing the river changed?*
Interviewee: *A lot. There's more. . . When I first started there was only three boats in Bella Coola that fished the river. Now everybody's in the river.*
Interviewer: *With the decline in the commercial fisheries . . . has there been more reliance on the food fishery?*
Interviewee: *Yes. Yeah, you smoke them [salmon], can them.*
Interviewer: *And that reliance, why do you think that's happened?*
Interviewee: *To help with the food over the winter months, yeah.*
Interviewer: *So normally if people are doing the commercial fishing, they'd be able to get extra food fish doing that?*
Interviewee: *Yeah. Some guys go out there to food fish. I think most of them are nowadays because there's too many boats in the river. Too many boats for [a] few fish that are coming up [the Bella Coola River] (Respondent No.35, current commercial fisherman).*

For this fisherman, reliance on the river fishery has meant a reduced consumption of traditional resources other than salmon. Without a boat, fishermen such as this respondent no longer have the transportation needed to obtain traditional foods such as crabs and clams. These foods were likely most easily accessible at the mouth of the inlet, or at least in coastal areas. Thus, fishing boats would have provided the most direct mode of transpiration to harvesting sites, especially considering the mountainous terrain surrounding Bella Coola.

Interviewer: *How did he get his fish food once he sold [his commercial boat and license]?*
Interviewee: *Out of the river.*
Interviewer: *So he'd fish the river instead of going out to the sea. So were you*

able to get the same type of food?

Interviewee: No, we stopped. We used to go and get clams and crabs (Respondent No.23, past commercial fisherman).

Another respondent suggests that it is predominantly the younger generation that has become more reliant on the easily accessible river fishery. As the coming generations have fewer opportunities to gain experience in the commercial sector, the local river fishery is the central opportunity to learn traditional fishing skills, access food resources, and engage in the local informal economy through the distribution and exchange of these resources. However, for this respondent, the degree of dependence on this river fishery is also a sign of hardship in the community.

> *With a lot of the guys giving up their license in the gill netting industry - you see a lot of people fishing in the river for food fish, you know, as compared to years ago, you know, a few years back. There are a lot of-- the younger generation's starting to [go] into the river and get their food fish. I've never seen that before but I guess they're hurting now (Respondent No.27, past commercial fisherman).*

As members of the community face persistent unemployment, and economic constraints encourage individuals to seek alternative ways to support themselves and their families, the nutrition and cultural importance that salmon provides is critical to the well-being of the community. Despite the accessibility of the river fishery, the food it supplies appears to be insufficient to meet the needs of this growing community. This issue is captured in the following comments describing the current demand for salmon.

> *. . . It's limited to four days a week now [the river food fishery]. But we acknowledge on the basis of-- those three days we don't fish we contribute to conservation, although our people can probably use the seven days a week now (Respondent No. 20, retired commercial fisherman).*

Well, our people are getting bigger and this Four Mile's[26] getting smaller [site of one of the two Reserve housing areas] . . . and their demand for the number of fish that's going up the river [is] getting bigger. And, you know, some of us barter it and some of us smoke it for families but, you know, like I said, there is more fishermen . . . (Respondent No. 31, commercial fisherman).

I think all the families today are trying to split it [salmon] up, getting less for each family and just enough for them to have a feed of it for the winter. Not like four times the amount what they used to have, but a quarter of the amount of what they used to have (Respondent No.09, past commercial fisherman).

Reliance on the food fishery is vital to the Nuxalk, not only for providing sustenance, but for maintaining cultural patterns of resources use that include exercising traditional rights and title to fishery resources, sustaining the consumption of nutritious foods, and upholding traditional knowledge related to fishing and the Nuxalkmc territory. Although salmon has traditionally been the most important resource for the Nuxalk, the shifting dependence on local salmon stocks and the decreased ability to access offshore resources is resulting in some degree of resource uniformity as foods such as clams, crabs and groundfish become less accessible. This respondent describes how he now predominantly consumes spring salmon and coho.

Interviewer: Has the dependency on the food fishing from the river here changed as the commercial fisheries have changed over the years?

Interviewee: Yeah, when I was a kid we used to eat everything. Now we just eat . . . spring salmon and . . . sometimes coho. We don't have a choice, really, there's just canned coho or springs. There's no more sockeye (Respondent No. 36, current commercial fishermen).

Regrettably, local reports suggest that, although some resources are more difficult to obtain because of lost boats (such as clams, crabs, halibut and prawns), other species are becoming more restricted due to decreased local availability. With salmon

[26] Four Mile is the name for the Nuxalk community located approximately four miles east of the town centre.

stocks declining and increasing numbers of people competing for limited resources, Nuxalkmc fishermen are frequently unable to either catch adequate quantities of salmon or meet the increasing demand placed on local resources. The following quote from a fisherman summarizes his observation of salmon stocks in the Bella Coola Valley, describing consistent declines in multiple species and increased challenges in meeting local demands for these foods:

> *Brothers and sisters, nephews, all would come together and work together in canning, filling up their cellars and freezers and thriving and surviving and living on it. And that's what the Nuxalk people used to thrive and live on. Most of the time we didn't live on hamburger and stuff that was our diet for generations. And I believe that even the stocks of the multi-millions of dog salmon [chum] is deteriorating drastically. There's hardly any more dog salmon like how it used to be as well as the pinks. Pinks were so massive abundant. See right now we are losing the springs. We've lost the steelhead. We've lost the sockeye and the coho in the last five years. That really went downhill. We thought they would never go down like the way with the chum and the humpbacks [pink] because there was so many of them. Now it's hardly any [quantity of salmon] in all of them [each species]. They're deteriorating really fast. . . . a lot of people are struggling now without having the food source like how they used to get it before, you know. It used to be so easy to catch but now it isn't, eh? Because you have to go quite a few times just to get some for yourself to live on for the year . . . especially when a lot of them lived on the fish and depended on it for the year and nowadays I think all the families today are trying to split it up, getting less for each family and just enough for them to have a feed of it for the winter (Respondent No. 09, past deckhand).*

Compounding the effects of declining salmon stocks, annual returns of eulachon – a small smelt-like fish – have also all but disappeared in the Bella Coola River. This species has been vital to the diet of the Nuxalkmc and is usually consumed in the form of grease, or is smoked. The eulachon were also harvested locally out of the river, and required little infrastructure or financial input to harvest or process. The virtual extirpation of the local eulachon stock has also had significant implications for the

Nuxalk informal 'trade and barter' economy, as it was traded in various forms throughout the Pacific Coast, and was also a central component of the Nuxalkmc diet as one past Nuxalkmc describes:

> *The eulachon . . . we never thought that they would ever disappear, you know, because that was one of our main diets -- to go against sickness because it had so much vitamins in it (Respondent No. 09, past commercial fisherman).*

The loss of eulachon has removed yet another resource traditionally consumed and used for exchange within the informal economy.

The current observations of resource decline in the Nuxalk Nation raise concerns about the future of the community and their local informal fishing economy. As resources currently provide source of sustenance under the current economic conditions, the further diminishment of resource access would inflict serious food and cultural limitations on the community. Already, some Nuxalkmc have indicated that there are individuals who do not receive sufficient food resources – particularly those who do not have the infrastructure to go food fishing for themselves, such as single parents or those with limited finances.

> *And lately I've been hearing that, you know, since it's been-- it's harder to, you know, have gas money and buy a cheap pick-up and go fishing for everybody. Now I hear that the single parents and the ones that have no access to nets and stuff like that, they just go without and are pretty-- it's pretty-- kind of a poor situation for them and their children, eh (Respondent No. 34, past commercial fisherman).*

The changes in the Nuxalk food fishing activities demonstrate how the rationalization of the commercial fisheries has altered access to tradable resource necessary for the informal economy. Clearly, the evolved dependence on commercial fishing gear to perform subsistence activities has negatively altered Nuxalkmc patterns

of self-provisioning and resource exchange. Put differently, the dependence of the informal sector on the formal has meant that public policy directed at the commercial fisheries has indirectly altered the safety-net function of the Nuxalk informal fishing economy.

For the Nuxalk, the integration of commercial and traditional forms of fishery production helped to maintain cultural patterns of resource consumption while at the same time adapting to new opportunities in the wage-economy. As demonstrated throughout this *Chapter*, the developed dependence on commercial infrastructure and income provided by the fishing industry has altered the conditions of production of subsistence foods for the Nuxalk informal economy.

Clearly, the current situation in the Nuxalk Nation produces vulnerability among members of the community. Now that the salmon fishery has become the most accessible sources of traditional food resources, and with increasing population and consistently high unemployment and income, the future security of local salmon has the potential to severely impact not only the local informal economy, but the overall well-being of the community. As discussed earlier, the Owekeeno have previously experienced the ramifications of local salmon declines, having to go without salmon because of lost commercial vessels. Although the Nuxalk have been able to maintain some degree of access to other traditional resources, the reliance on salmon raises concerns, particularly with respect to the future viability of the salmon resources and potential impacts on the Nuxalk if local stocks continue to decline.

Conclusion

This Chapter aimed to investigate the relationship between the commercial and food fisheries in the Nuxalk Nation. Using historic and policy literature, we argue that although First Nations' fishery participation has come to be distinguished as *commercial* and *food* fishing, commercial infrastructure (such as boats, fishing gear and related income) have, over time, become critical to accessing traditional marine resources necessary to the local informal economy. These changes in fishing practices do not diminish the importance of food fishing to Nuxalkmc life ways, but are a testament to the ongoing reinvention of cultural forms and adaptation to material loss and change.

In light of continual Nuxalkmc marginalization from the commercial fishing industry, and the minimal reserve lands legally allocated (based on the assumed reliance on the commercial sector for their economic viability), members of the community have become even more reliant on their *traditional ways.* These activities include subsistence fishing and the gathering of marine foods, as well as the local exchange of fish resources within the Nuxalk informal fishing economy. With currently limited reserve lands to utilize for economic development purposes, the informal economy remains a *vital economy* that helps to support household needs and consumption of traditional foods.

Though the informal economy exists outside the formal code of law and government regulation, this study demonstrates that it is not free from the influences of such policies and decision making. In this *Chapter* we have illustrated the indirect and

often unseen implications of fisheries regulation on the Nuxalkmc informal fishing economy. Despite the often hidden existence of informal economies, their value to those who participate, and their communities, is undeniable. However, the unaccounted impacts of marginalization from the commercial fisheries have directly altered the Nuxalkmc capacity to engage in this system. That is, lost income and the exodus of fishing boats and gear has meant significant limits on accessing foods needed for subsistence and exchange. Thus, as analysis in this *Chapter* reveals, participation in the informal economy can be greatly influenced by resource management policy both in direct and indirect ways.

These findings highlight the importance of considering the *invisible losses* associated with government policy that results in the disruption of culture, lifestyle and overall community resilience (Turner et al. 2008). In the case of the Nuxalk Nation, the destabilization of the informal economy as a result of decreased participation in the commercial fisheries aptly represents an example of invisible loss often unaccounted for in management and decision making processes.

While the Nuxalkmc now have a legally recognized right to access traditional marine resources under the Aboriginal Fisheries Strategy (2008), findings demonstrate that many community members do not have the infrastructure or income to exercise their rights. While this dilemma is the crux of the Nuxalkmc food fishery and informal economy, it also represents the continuation of Nuxalkmc colonization. By granting the Nuxalkmc legal access to their traditional resources (although many members of the community have no harvesting capacity largely as a result of fishery regulations) the

government perpetuations the historic dislocation of the Nuxalkmc from their traditional resources. This issue of the legitimate access rights must be considered by resources managers. As the Department of Fisheries and Oceans aims to *maintain traditional and historic connections, resource use and values* (Fisheries and Oceans 2007), understanding the constraints associated with access and use is critical to meeting such objectives in the Nuxalk context.

As the Nation now has limited reserve lands to utilize - a stark reflection of past government assumptions that the local economy would be supported by the commercial fisheries, opportunities for economic development and improving the well-being of the community are also limited. In addition, the continued rates of unemployment and reliance on government assistance mean that many in the community must depend on locally available foods. These constraints only strengthen the need for involvement in the informal economy and engagement in subsistence practices and forms of communal exchange. If the informal economy remains unsupported by the formal economy in the Nuxalk Nation, findings suggest it will be important to find alterative ways to encourage and facilitate participation in this system, as it would only work to improve the resilience and well-being of the community.

Combined, issues of resource access, stock declines, Nuxalkmc population growth, and the need for affordable and culturally desired foods raise questions about the future of traditional food security in the community. In addition to decreased harvesting, exchange and consumption of marine foods, research findings also indicate that reduced participation in the Nuxalk informal fishing economy also affects social

relationships, networks and community well-being more generally. *Chapter* 4 examines these social dimensions of community participation in the commercial and food fisheries by using social capital and social cohesion frameworks.

Chapter 4: *It Was a Happier Time Than Now:* The Social Implications of a Declining Fishery

Introduction

In the field of natural resource management, social capital is often researched as a tool to facilitate sustainable development (Pretty and Ward 2001); fostering the development of environmental NGOs or environmental groups (McGory et al. 2006); to promote sustainable resources use (Miller and Buys 2008) and as a tool to enable adaptation to climate change (Adger 2003). Research in this arena, while valuable to the broader sustainability discourse, has largely focused on how social capital can be used in the development of future policies and environmental initiatives rather than how natural resource *policy* can *affect social capital* in resource dependent communities. In this *Chapter*, I take an alternative approach to understand social capital in a resource management context by investigating how past resource management strategies – namely the rationalization of the commercial fisheries – have *altered* social capital and social cohesion within the Nuxalk Nation. This novel approach contributes to the existing literature by demonstrating that social capital and social cohesion can be successfully used to evaluate those unrecognized losses often associated with the cumulative affects of resource management policy.

In this *Chapter*, a brief overview of social capital and social cohesion is presented before applying these theories in the analysis of the Nuxalk interview data. Throughout the course of analysis four categories identified as indicators of cohesive societies are

utilized as a framework for discussion, and include: belonging/isolation; inclusion/exclusion; participation/non-involvement and; legitimacy/illegitimacy. Within each category, central dimensions of social capital that contribute to each indicator are discussed and used to frame the Nuxalkmc interview data. For example, generalized reciprocity and social networks contribute to the development of social capital, but they are also the basis of belonging in (or isolation from) ones community. Analysis throughout this *Chapter* combines literature and empirical evidence from interview data to determine how changing participation in the commercial fisheries has contributed to *invisible losses* in the Nuxalk Nation, particularly as they relate to social dimensions of the community.

Social Capital

Putnam (2000:19) defines social capital as "social networks and the trust and reciprocity that arise from them." Though multiple definitions and descriptions of the concept have been presented throughout the literature, the definition by Putnam is widely used and accepted. In addition to the qualities of social capital described in Putnam's definition, there is a more general consensus that social capital is tied to the following characteristics: participation in networks of various kinds (i.e. family, neighbourhood, friends, and business), reciprocity, trust, social norms, a sense of the "commons", and pro-activity and cooperation (Cavaye 2004). [27] Distinguishing it from

[27] In this thesis, I focus on the positive aspects of social capital, however, the same social networks and ties can have negative outcomes as well. For example, strong social networks can be used to support gang violence, racism, drug and criminal activity etc. For further discussion see (Coleman 1998; Cordell and Romanow 2005; Putnam 2001; and Putzel 1997).

other forms of capital, ". . . social capital inheres in the structure of relations between actors and among actors." According to Granovetter (1973:S98) "it is not lodged either in the actors themselves or in physical implements of production."

Social capital can be conceptualized as an asset of the social system where acts of reciprocity, trust, and networking can be freely shared and held in trust for later reciprocation. Examples of social capital are pervasive throughout our daily life where simple acts such as helping a friend paint their house will probably be repaid in some reciprocal fashion, though the time and method of the repayment are likely unknown. Individuals have the potential to hold resources either personal or social in nature, where "social relations may include ownership of material or symbolic goods. . ." and ". . . are accessed through an individual's social connections (Lin et al. 2001:21)." As Lin et al. point out the critical value of social capital is that it enables the acquisition of other resources through social relations. These, according to Lin et al., are more valuable than personal resources.

Alejandro Portes (1998:5) highlights the importance of distinguishing between those resources obtained through social capital, and the ability to obtain them by virtue of membership in different social structures. He notes that "equating social capital with the resources acquired through it can easily lead to tautological statements" (ibid). This point is important to consider in the case of the Nuxalk. While participants in the fishing economies show signs of diminishing access to resources, it is not assumed that those who gain access to resources have more social capital than those who do not, as the resources themselves do not determine social capital.

Portes' (1998:2) work has also contributed to the organization of social capital among three primary functions:

1) as a source of social control and rule enforcement;
2) as a source of family support;
3) as a source of benefits through extra-familial networks.

Of these three functions, Portes suggests that the third function, a source of benefit through extra-familial networks, is the most widely used from of social capital and confirmed by many scholars in the field of community development (Cf. Cordell and Romanow 2005; Healy and Hampshire 2003; Odasz n.d.; Onyx and Bullen 2000; and Putnam 2000). Within these categories, we can see representation of the two types of social capital that have been distinguished by Putnam (2001), bridging and bonding social capital.

Bridging and Bonding Social Capital

According to Burt (1992), *bonding* social capital describe ties characterized by internally focused networks such as those among members of homogenous social groups such as kinship or familial networks. These bonds provide a system of support and resource access to individuals within the network. In contrast, *bridging* social capital represents weaker ties outside immediate social networks that transcend across heterogeneous groups such as friends and colleagues. This type of bond provides access to external resources or information.

Social Cohesion

Social capital has been used throughout the literature as an encompassing concept that can include a number of other social actions such as social support, exchange as well as cohesion (Alder and Kwon 2002; Timms, Ferlander and Timmes 2001). To the contrary, other scholars have argued that social cohesion is better understood and applied as a separate concept (*Cf*. Beckly 1994; Reimer 2002; and Dayton-Johnston 2001). Though the literature diverges with regard to the relationship between these concepts, there is a general agreement that social capital and inherent networks, trust, and bonds, can contribute to the cohesiveness of communities (Miller 2001).

The origins of the concept date back to the work of Durkheim (1984) and de Tocquville and Mayer (2000) during the late 19th century. Durkheim considered the great social changes that took place during the industrial revolution, underscoring the notion that cohesive societies, depended on shared loyalties built upon interdependence and solidarity (Jenson 1998:9). These qualities identified in the early work by Durkheim, de Tocqueville and Mayer still resonate in more recent definitions of the concept that describe social cohesion to encompass shared values, reduce income and wealth disparities, and provide people with a sense that they share similar challenges and are members of the same community (Maxwell 1996:13). A slightly varied definition from the Canadian Federal Policy Research Sub-Committee on Social Cohesion defines the concept as:

> . . . an ongoing process of developing a community of shared values, shared challenges and equal opportunity within Canada, based on a sense of trust, hope and reciprocity among all Canadians (PRSub-C 1997).

The most significant distinction between social capital and social cohesion is that, while social capital is seen as a process/asset, social cohesion is understood as a social outcome. The relationship between the two concepts is productive in the sense that social capital can directly contribute to social cohesion. Thus, activities that produce increases or decreases in the stock of social capital can increase or decrease social cohesion within a community. Therefore, it is through social networks at the individual level that social capital can aggregate into collective assets such as social cohesion (Reimer 2003:11). According to Jenson (1998:vi) social activities that affect the cohesiveness of societies are generally aligned with the following five categories:

- belonging/isolation;
- inclusion/exclusion,
- recognition/rejection;
- legitimacy/illegitimacy; and
- participation/non-involvement;

These categories emerged from an analysis of four representative documents on social cohesion, two national-level government documents - one Canadian (PRSub-C 1997) and one French (Plan 1997), and two international reports - one by the Organization for Economic Co-operation and Development (OECD 1997), the other by the Club of Rome (Berger 1998).

The first category belonging/isolation is characterized by feelings of belonging to one's community and the possession of shared values among members of one's society that fosters a sense of commitment and being part of the same community (Jenson

1998:16). Conversely, isolation arises when members of the community lack the same sense of belonging to their community. Similar to the previous category, inclusion/exclusion represents the degree of social cohesion produced through engagement in economic institutions, namely the market. Because participation in the economic institutions such as the labour market have propensity to support cohesive societies, social cohesion can be influenced by opportunities to participate in the market or marginalization. Also included in market activity is inclusion/exclusion from the informal economy. This is particularly relevant to the Nuxalk informal fishing economy which is an important system of exchange within the community.

Recognition/rejection is a category difficult to apply to the local context of this study. It involves the recognition or rejection of difference to the end that ". . . pluralism becomes not just a fact but a virtue – to wit, the ideal of people with different beliefs and values living together in a state of civic peace" (Jenson 1998:16). Because this study focuses on but one aspect of Nuxalk society - involvement in fishing economies – conclusions about the recognition/rejection of difference within the research community would be presumptuous. Furthermore, this category is more frequently used to understand large-scale societal cohesion rather than at the local level (Jenson 1998:18).

The fourth category, legitimacy/illegitimacy addresses social cohesion that stems from the legitimacy of public and private institutions that act as mediators within a community. According to Jenson (1998:16) "social cohesion can be threatened by rising tides of cynicism or negativity that question the representatively of intermediary

institutions. . . ". In the work of Jenson, there are no references provided that address legitimacy at the local level.

However, in the context of this study, legitimacy of governing institutions is directly related to the regulation of natural resources, namely the Department of Fisheries and Oceans. In addition, views of legitimacy can be directly related to the degree that members of a society are able to actively *participate* and contribute to decision making processes. As described by Jenson, the category of participation/non-involvement focuses on involvement in local governance as well as those relationships between central and local governing institutions. Therefore, the categories of legitimacy-illegitimacy and participation/non-involvement are significantly connected with respect to fisheries regulation in the community. Thus, the history of fisheries regulation by the Department of Fisheries and Oceans presents an interesting focal point to assess participation or non-involvement in decision making processes and the implications for perceptions of legitimacy of this institution and the Federal government more generally.

To assess how changes in local fishing participation have affected the social cohesion of the Nuxalk Nation, I will employ four of Jenson's (1998) categories belonging/isolation; inclusion/exclusion; legitimacy/illegitimacy and; participation/noninvolvement as tools for organizing and discussing social cohesion and dimensions of social capital. It is important to note that although these categories are presented by Jenson as separate categories where social cohesion can arise, in the case of the Nuxalk context, there is much overlap with respect to the empirical data provided

by members of the community. In the remainder of this *Chapter* analysis will raise questions about how altered participation in resource use activities (ie. employment in commercial fishing, subsistence harvesting of marine resource, resource distribution and exchange etc.) and related relationships with marine resources change social organization in the Nuxalk Nation with regard to social capital and the cohesiveness. Throughout analysis, every effort will be made to clearly organize the empirical evidence within the analytic framework; however, there will be points of categorical overlap within the discussion.

The following section provides participant accounts of impacts on the community after the collapse of the fisheries and characterizes social life via the social cohesion and social capital framework. Due to the size and representativeness of the sample, it is important to state that these findings are not necessarily generalizable of social capital and social cohesion in the Nuxalk Nation. However, the depth and detail captured in interviews enables a deeper understanding of the dimensions of social capital and social cohesion in the community and the way they are affected by both economic and social change.

Belonging and Isolation in Nuxalk Fishing Activities

Scholars suggest that in rural communities, social capital is often associated with strong ties indicative of kin, communal, clan and friendship networks. With respect to rural communities, it is most prevalently the aspects of *bonding* social capital that create a safety-net and enables members to cope with the social and economic hardships encountered at both the individual and communal scale. In particular, those social

transactions taking place within the informal economy work to strengthen social capital networks among members of the community. This is supported by Wilkinson's (1991) statement that strong ties tend to dominate those found in rural communities and are considered to reflect the isolated and often environmentally challenging aspects of rural life that place a greater emphasis on "intra-family cooperation and exchange" (Coward and Rathbone-McCaun 1985; Lee et al. 1994). These characteristics resonate with the information provided by members of the Nuxalk Nation and also the type of social capital networks at play there, fitting most closely with one of Tiepoh and Reimer (2004) fundamental modes to classify social capital - ***communal relations*** [28]. The author describes these types of social relations as:

> . . . founded on [a] strongly shared identity, in which rights and obligations of members are largely determined by custom and distribution of goods and services is done according to need rather than status or ability to pay. These are most likely to be found within family, clan, or close friendship networks. They provide sources of income through remittances, preferred transfers, jobs, and special entitlements. Social capital based on communal relations also provides an important form of risk reduction, especially in marginal economies (P. 43).[29]

For the Nuxalk, the development of social capital through communal relations often takes place through networks of resource exchange and generalized reciprocity related to the sharing of fish resources such as salmon. It is through this type of community participation social cohesion is fostered (Maunter and Lynch 1999:68) as well as connectedness and solidarity among groups in a society (Kawachi and Berkman

[28] The three other fundamental modes of social relations described by Tiepoh and Reimer (2004) include: market relations, bureaucratic relations, and associate relations.

[29] In the anthropological literature, much has been written about the North West Coast First Nations as 'gift' and 'exchange' based societies. This discussion lies outside the scope of this study, but can be examined in the work of Jonaitis and Cole (1991), Mauss (1990), Drucker and Heizer (1967) and, Codere (1950).

2000:175). This section will examine belonging/isolation related to fishing activities and will be organized according to two key aspects of sociability that constitute social capital: 1) acts of generalized reciprocity, and 2) social networks. A third dimension of social capital, trust will be discussed where applicable.

Generalized Reciprocity and Sharing

For the Nuxalk, networks and reciprocal exchange systems often involve fish or similar resources needed for survival and are foundational to the collective identity of the Nuxalkmc. In this research context, belonging and community interconnectedness is largely tied to social activities related to fishing. In particular, the exchange and redistribution of salmon has been vital to cohesiveness among the Nuxalk, as it engages people in a cultural exchange reinforcing social norms and values of sharing.

These acts of reciprocity date well beyond contemporary values, and also encompass traditional[30] Nuxalk values. Ethnographer T.F McIllwraith captures norms tied to redistribution in his work during the early 1920's. These cultural values ensured that individuals did not take advantage of the redistribution of fish and the sharing that occurred. McIllwraith (1948) observed that:

> Although individual ownership is thus recognized with regard to sections of salmon-weirs and suitable places for olachen-nets, the owner is bound to share his haul. When he catches a large number of fish, anyone, whether related to him or not, can demand some. He cannot refuse, since to do so would brand him selfish. The effective check on this system lies in public opinion which expresses contempt for a lazy man who is constantly begging (P. 136).

[30] While I recognize that practices designated 'traditional' can be so assigned for political purposes and that some traditions are ephemera, others are enduring. Salmon, for example, is integral to Nuxalkmc tradition historically and presently

This is consistent with the previously defined attributes of communal relations in that ". . . rights and obligations of members are largely determined by custom and distribution of goods and services is done according to need rather than status or ability to pay" (Tiepoh and Reimer 2004:430).

In addition to securing survival, the traditional assurance of food access to all members of a community would have prevented feelings of social exclusion for those unable to obtain resources. To some degree, this supports our earlier argument about the role of marine resources as a source of belonging in one's community. From McIllwraith's observations it can be argued that norms enforcing obligatory sharing have influenced current attitudes toward patterns of sharing and reciprocity in contemporary Nuxalk society.

The following statements from our interviews indicate that the distribution of catches is still an expected action consistent with the cultural norm described by McIllwraith, and characteristic of communal relations where ". . . obligations of members are largely determined by custom. . . " (Tiepoh and Reimer 2004: 430).

> *I have to go food fishing . . . for about maybe five houses. I got to get mine first, then go down the line, eh. And then if I get extras I have to-- go around, give them out (Respondent No.29, past commercial fisherman).*

As the following respondent reminisces about how harvesting once took place, he acknowledges the significance of redistributing food to members of the community.

> *Two canoes come down [the river] with a net and they used to fish for the whole village, not just for themselves but there was about five or six guys from the village would go up with two canoes. It would take them all day to get up there. They spent the night up there, then the next day they'd drift down. But what*

they got went to the whole village (Respondent No.28, past commercial fisherman).

Other respondents discussed the extent that fish were distributed throughout the community, illustrating how this social norm is embedded in communal relations.

. . . like [Brent], he [will] bring uctt[31] in. He don't ask for anything he just give it to you. . . . They don't ask for anything, they just-- give away. . . (Respondent No.16, current deckhand, [pseudonym])

Yeah, . . . guys would go fishing for everybody. Especially for the guys that don't go in the river, eh. Like the old folks. That's what I usually do (Respondent No. 29, past commercial fisherman).

Levi-Wiesel (2003:333) proposes that the willingness to give to others is central to creating a sense of belonging in one's community. During interviews with members of the Nuxalk Nation, many commented on how sharing is important to Nuxalk identity and the well-being of the entire community. The comments above also point to the development of *trust* among the actors involved. Indeed, trust is critical to maintaining generalized reciprocity. The exchange of goods and services are not simply transactions, but affirm the trustworthiness of the people involved and the networks that support then (Reimer 2001:4). Those Nuxalkmc who talked about sharing their resources rarely commented on expected returns, indicating that exchange is closely linked to trust in community members and a cultural understanding that a member of the community will give when they are able to do so, and receive when they are in need.

Despite comments illustrating the value of generalized reciprocity, there were also others that indicate a decline in these activities caused by economic and resource limitations. As a result, members of the community have observed a decline in sharing

[31] *Uctt* is Nuxalkmc for herring eggs.

and generalized reciprocity as people are no longer able (nor in some cases willing) to share their resources. This argument is supported by the comments of one respondent. When asked if anything has been lost in the food fishery he quickly identified the sharing of salmon. This change has affected him personally as he witnesses elders going without fish. In his view, sharing outside the community is inappropriate when members of the Nuxalk community are in need.

> *The sharing and the giving, that's been lost big time. A lot of-- especially for our elders like we should respect our elders more when it comes to that because it's-- it all boils down to they should be the first ones getting the salmon. Nobody does that. Like, I can see fishing going on. I can see people giving fish to their non-Native friends and where elders are getting nothing. And this is happening big time. Like the non-Natives are getting more fish than the elders are. That's crazy . . . I see it happening all the time and, like, I witness it every day just by living close to somebody that does that every day. You want to give some salmon away, why don't you go see those elders over there? That's what I feel like saying at times . . . (Respondent No. 01, past deckhand).*

This respondent perceives a separation between the First Nation and Civic community, as he suggests that Nuxalkmc should help each other before giving outside their community. For him, sharing with the Civic community is breaking a norm of solidarity with elder, and eroding the trust inherent in the safety-net among the Nation.

Other respondents linked decreased sharing and reciprocity to diminished access to fish resources, and the current economic challenges the community faces:

> *Yeah, that's another thing -- fish stocks have gone-- dwindling down quite a bit, eh, and there's-- and it's hard to [share] -- you sure have some—[there are a] few people that willing to share. But [for] some of them-- it's hard . . . to share . . . Everybody's just so hard up. They don't even want to help anybody. Don't even want to help elders anymore (Respondent No.37, past commercial fishermen).*

> *It's hard here now . . . we can't share anymore 'cause we don't get fish . . . 'cause there's nothing to share (Respondent No. 42, spouse of past commercial fishermen).*

These comments are significant as they suggest that decreased sharing is not necessarily because people are unwilling to share, but that current circumstances are restricting their ability to engage in generalized reciprocity. According to Stanley (2003: 8), social cohesion is based on the *"willingness of people in society to cooperate with each other in the diversity of collective enterprises that members of society must do in order to survive and prosper . . .",* but also that willingness to participate is contingent upon capacity. The author notes that: "*All the willingness in the world is not going to get you hired to a high tech job if you have been denied adequate schooling by economic or ethnic exclusion."*

For the Nuxalk, the issue of capacity to access resources appears to be debilitating generalized reciprocity. As discussed in *Chapter* 3, many factors linked to the collapse of the commercial fisheries are reducing capacity, including the removal of fishing infrastructure and the loss of financial resources.[32] As evident below, these constraints are having negative implications for the cohesiveness of the community. After asking one respondent if he considers his community "tight-knit", he links declined access to marine resources to a decline in social cohesion. The insight of this respondent demonstrates that in addition to sustenance, the exchange of fish contributes to solidifying social bonds that instill cohesion in the community.

> *It was [a tight-knit community] before but now it's, like, everybody for themselves but, you know, I think maybe the majority of people are-- what do*

[32] Later in this Chapter I will provide a discussion of how exclusion from the formal economy, has affected the community in terms of social capital and social cohesion. The discussion here is to illustrate how generalized reciprocity is being impacted by changes in the local economy vis-à-vis capacity to access marine resources.

you think, they're not getting fish now, eh (Respondent No.34, past commercial fisherman).

The personal experience of another former commercial fishermen points to constructed isolation and animosity between those who gain access to fish and those who do not.

. . . It's just like sort of an extreme jealousy if you get too much fish people mention it to you and everything. And they're not scared to say it and to hurt you . . . (Respondent No. 41 spouse of past commercial fisherman).

Another commercial fisherman demonstrates a sense of isolation resulting from a loss in communal-based activities. In particular, as the eulachon has been virtually extirpated from local rivers, communal harvesting and processing activities have also been lost. For some, this represents a decline in social cohesion as people no longer have the same opportunities to come together and strengthen the social bonds that foster a sense of security and belonging in one's community. Furthermore, the loss of eulachon has meant serious constraints on the trade and exchange of eulachon grease, once a central commodity for trade throughout the Pacific Northwest. These trade relations were not only a means to diversify resources but also forged personal relationship and maintained kinship ties. Whereas earlier quotes demonstrate specific information on the type of resources given away such as salmon, these comments about decreased attainment of resources link this with considerable emphasis on lost social benefits, values, and belonging as a consequence. This is further evidence that social benefits from engaging in fishing and resource distribution extend well beyond the resources themselves, as these social networks create space to generate bonds and provide a safety-net to those in need.

> *They're so poor, like, there's . . .* ***less communication and socializing****, I guess. It's really hard because you saw it in a lot of the people.* ***Everybody tried to get what they can for themselves . . .*** *(Respondent No. 37, past commercial fisherman, emphasis added).*
>
> *Yeah-[fishing eulachon was] very social. And a lot of community work. And [now]* ***you've got to fend for yourself*** *(Respondent No.13, current commercial fishermen, emphasis added).*
>
> *But that's-- there's the* ***decline of the social life*** *of [the community]-- with the eulachons, -- like 24 families got together to do the eulachons and now [they don't] (Respondent No.01, past deckhand, emphasis added).*

These quotes provide insight about both social capital and social cohesion in the community. First, it appears that networks are no longer allowing access to resources – a central criterion of social capital as defined by Bourdieu (1979, 1980 in Portes 1998:4). As illustrated in the comments above, social relationships are no longer furnishing access to fish resource they once had. Second, these trends are also contributing to the erosion of social cohesion within the community. This observed change is linked closely to a key criterion that contributes to social cohesion, *belonging* (Jenson 1998: vi). Rather than a sense of mutual reliance and community solidarity, there are feelings of dislocation from a community safety-net. Those phrases *"fending for yourself"* and "*every person for themselves*" demonstrate that with the decline in the local economy and changes in the food fishery, the constraints are such that even the safety-net function of the informal economy is being impeded as people who can no longer participate in exchange or generalized reciprocity are isolated from the system.

Social Networks

Acts of reciprocity and sharing are frequently embedded within social networks. These networks not only contribute to the development of social capital by generating trust and interdependence, but communities that have them also exhibit social cohesion. According to Forest and Kearns (2001:2130) "residentially based networks . . . are the basic building blocks of social cohesion, through which we learn tolerance, cooperation and acquire a sense of social order and belonging. In this section two types of networks will be investigated: *kinship* and *resource-pooling* networks.

Kinship Networks: Exhausting the Ties that Bind

In the Nuxalk Nation, social networks are largely dominated by kinship and clan relations. In his discussion of the differences between kin and non-kin ties, Granovetter (1983, 1973) suggests that non-kin (or "weak" ties) between non related individuals provide more reciprocity than do "strong" ties (those based on kinship), but that strong ties cannot furnish the quantity and heterogeneity of information that "weak ties" can (ibid). However, the type of resources that one is trying to access may have implications for which type of ties (kin or non-kin / strong or weak) are more productive. For example, if a Nuxalkmc were trying to access employment in an urban centre, more distant weak-ties held with an acquaintance in a management position may be more productive (*Cf*. Lin, Ensel and Vaughn 1981).[33] For most Nuxalkmc, who are focused on attaining more basic resources needed for survival such as food, weak ties with non-kin

[33] It is also possible that a kinship tie with an individual in a managerial position would yield a similar outcome.

would likely be less useful (*Cf*. Wilkinson 1991). This reasoning is consistent with the argument that kinship ties dominate exchange in rural communities (Hill et al. 1993), where more difficult survival conditions increase the need for interfamily cooperation and exchange (Coward and Rathbone-McCuan 1985; Lee et al. 1994). The comments of many Nuxalkmc illustrate the extensiveness of kinship networks throughout the community, and also their importance to attaining resources. These are several representative comments depicting the importance of kinship ties to providing resource access:

> *We use it for food fishing when we go out-- and my brother [Scott][would fish] for the family - food fish for sockeye for everybody (Respondent No.26, past commercial fisherman, [pseudonym]).*
>
> *Yeah, just usually everybody fishes for their own family or the elders. It's a family thing, yeah (Respondent No.11, past commercial fisherman).*
>
> *All the families, yeah. Brothers and sisters, nephews, all would come together and work together in canning, filling up their cellars and freezers and thriving and surviving and living on it (Respondent No.09, past deckhand).*
>
> *I just, I usually send some down to my mom, my sisters. I don't trade; I just give it out to them (Respondent No.16, current commercial fisherman).*

For those who have the *capacity* to fish, their services are often requested by growing numbers of people, especially family members. For some, this dependence becomes burdensome and forces individuals to reduce the scope of their fishing. One fisherman noted that, although he had to stop fishing for a number of people, commitment to kinship ties compels him to continue fishing for family members. For him, kin ties maintain a sense of 'obligation' and responsibility consistent with that of social capital based on communal relations (Tiepoh and Reimer 2004:430).

You know, we didn't go fishing for ourselves, eh. . . . almost before-- I'd get [my fish]- [I'd] have to go fishing almost all summer just to supply the whole family, eh - my sisters and my brothers and aunts and uncles. Lots of them didn't have a vehicle so, you know, we'd go fishing all summer for other people. . . . I got tired of fishing for everybody and I got tired of fishing for my friends. So, I said, "Oh, well, I'll fish for my family again," as a courtesy (Respondent No.34, past commercial fisherman).

In contrast, another respondent talked about the repercussions of reducing the scope of her sharing, suggesting that negative feelings can be held by those who no longer employ their social capital to obtain resources. As individuals become excluded from social networks, it may be their sense of belonging that is lessened in addition to their salmon.

And we used to can it for all-- I'm the middle of 11 kids. So we used to can and fish for everyone in and divide it. It was a lot of work and-- I quit doing that a few years ago because it's a thankless job. [Laughs] It's-- I said, "I'm not doing it for anyone else now. Just me and my kids and my parents," and people really didn't like that (Respondent No.30, past commercial license holder/fisherman).

For individuals who traditionally used kinship networks to acquire fish, limited finances can impede participation. With a lack of cash, some no longer have the means to contribute to social networks, and therefore become isolated from traditional fishing activities. Although these individuals may be able to access the same resource by other means, isolation from the network may have subsequent implications for the social capital of the actors involved.

Similar to the insights of Hofferth and Iceland (1998:578), this comment supports the argument that it is the needs of kin and *resources available* that dictate more directly the nature of exchanges:

Interviewee: Well, as a family. . ., you know, I fish, and we usually all fish and

do-- one smokehouse and then go get some more and then we'd do another smokehouse full… each time [we would catch] about 15 springs and that would go to one family, you know, fill up their houses and then we're done. And it's been done that way for years. But the last few years though it hasn't been done like that.

Interviewer: No? What changed?

Interviewee: Funds, the money. Because we used to have a lot of money back then and everybody doesn't have the money and [vehicles] used to go back and forth, fuel, and to buy the salt, sugar and everything. So everybody just does it on their own now or we do now. So yeah, it's changed a bit (Respondent No. 23, past commercial fisherman).

Others who lose their kinship networks may simply go without fish:

Oh, (we get fish) just if my nephew gives it to us or my brother-in-law used to give it to us. But now we don't get any at all (Respondent No.42, past commercial fisherman).

Social norms related to sharing as well as kinship ties mean that those with resources are obligated to help those in need. Others, unable to share and engage in reciprocity to the degree they once could, appear to be reducing their scope of social exchange by excluding those at the periphery of their networks and focusing on fulfilling personal needs and kinship obligations. This finding is consistent with behavior during times of economic stress, as people withdraw from social activities and focus their energies on meeting the basic needs of their families. Putnam (2000) describes the implications of this for social capital:

> As my economic situation becomes more dire, my focus narrows to personal and family survival. People with lower incomes and those who feel financially strapped are much less engaged in all forms of social and community life than those who are better off. For example, even comparing people with identical levels of income and education, men and women in the financially most worried third of the population attend only two-thirds as many club meetings as people in the least worried third of the population (P. 193).

Although both kin and non-kin networks can provide social support and act as a safety net in difficult times (Coleman 1988), the trends in the Nuxalk Nation suggest that the current economic conditions are effecting both kin and non-kin networks. Non-kin networks however, are often the first form of disengagement when an individual faces economic hardship. For those isolated from the networks, they not only lose social capital resources, but their sense of belonging in the community.

Resource-Pooling Networks: Belonging Contingent upon Physical Capital

While some Nuxalkmc use their kinship ties as social capital by having individuals fish for them, others use these ties to achieve the *capacity* to fish by developing what I call *resource pooling networks*. These networks exist where people contribute varying resources (such as a vehicle, boat, fishing gear or cash) to accomplish fishing tasks otherwise not feasible for a single individual. Such networks are not uncommon in rural contexts. Harper and Gillespie (1997:108) for example, discuss similar organization among farmers in rural New York State who share equipment and labour for many jobs that would otherwise be mechanized or completed with hired help on larger scale farming operations. These findings are also supported by the research of Stack (1974) who found that, in a community experiencing severe economic depression, the impact was limited through both kinship and friendship networks where individuals would "swap, trade, and borrow from one household to another" so that "the scarce range of goods could be redistributed throughout a number of households. . . ".

As demonstrated in the quotes below, individuals who do not have direct access to salmon will often contribute whatever resources are available to them in return for

fish - including fishing gear, time, cash and boats. Here we see it is physical capital that dictates participation in these social networks. While Portes (1998:4) claims that social capital can allow actors to access economic resources, in this context it is both social capital and the possession of physical capital that facilitates inclusion in these networks.

This informal network offsets individual inability to fish. Accordingly, these networks not only provide sustenance and tradable resources to contributing individuals, but create strong social ties, cohesion and interdependence among participating actors. The generosity of sharing equipment benefits others in the community as the catch is further shared. One respondent casually discusses this adaptation, illustrating how equipment is shared to forge fishing *capacity* by members of the community, and in the second quote, how he engages in a similar network.

> *What they do nowadays is they get a group of people. [John] gets a bunch of people [to] just go on his boats, about six people at a time to begin with. -- two boats go out at the same time and go clam digging and . . . jigging and halibut fishing and all that all at once . . . and spread it around to people - hard to reach people (Respondent No. 26, past commercial fisherman, [pseudonym]).*

> *Like my friend, he don't have a vehicle, what he does, we kind of-- we trade off, "You drive me and I'll give you the next one and we'll give you fish and fill up your smokehouse" (Respondent No.26, past commercial fisherman).*

> A similar resource-pooling network was described by another respondent:

> *What they do nowadays, they all pool money in to buy fuel and they all go-- take six or seven guys out there to do the fishing (Respondent No.35, current commercial fisherman).*

For some, these networks are also determined by kinship, once again supporting the dominance of kinship ties in the Nuxalk Nation.

> *Well, we've got a lot of family members and what we do we try to make it [the fishing gear] available, that the nets are used, the boat is used, you know, like if*

it's needed. Like Sunday night I'd be busy [fishing], so busy Monday morning I won't need my net, I won't need my boat you know, so other guys would take the boat and net and do the same and it's passed on that way (Respondent No. 25, past commercial fisherman).

It's guys like me who's supplying most of the-- like, all of my family and friends with gear . . . I get-- her brother and his wife they do my fish, eh. She cuts it all but I just give them all-- I supply the boat and the net . . . (Respondent No.36, current commercial fisherman).

Although these networks have become an important source of resources for those involved, as both natural and physical resources decline in the community some individuals become excluded from these social exchange networks. Those who are isolated from both kin and resource-pooling networks experience challenges in gaining access to needed resources.

No Networks-No Fish: Isolation on the Rise

As presented in the earlier data, many families were said to be going without salmon. In particular, those people on the margins of society, such as elders and single parents, tend to be more vulnerable to isolation. One respondent identifies constraints placed on single parents who do not have the financial capacity to obtain fish directly, or to engage in networks that could provide needed resources.

They become single parents and they can't afford to go fishing or hire anybody much less, because welfare [gives you] about two to three weeks of sustenance and you have to try to find something else to supplement. And it's pretty hard with, you know-- ninety-seven percent unemployment now and it's very hard. . . -- well, I've nothing to basically complain about because I know some people don't get [fish] and they need it. I think the way the economy's gone, you know, and it's hard to spread yourself to help others . . .. back then there was no [problem to get fish] but now a lot of people are [not able to], like, that's why you got food banks and dinners for them, [so] they can survive, like, a Salvation Army or something (Respondent No. 04, past commercial fisherman).

The comment above describes how individuals already in difficult economic positions have further limitations to acquiring resources. As people are unable to obtain fish through social networks, they turn to more formal types of assistance such as community food banks, rather than calling on the traditional safety-nets often afforded through social ties. In particular, elders seem vulnerable to exclusion from these social networks perhaps because they are without resources to reciprocate, or have limitations within their kinship networks.

> *Well, it used to be that people and the elders got their salmon or what they needed, everybody got what they needed. And today it's-- a lot of people still fish for families but if they don't have a family and, like a lot of elders don't get their salmon anymore. That's sort of sad and it is very true because we used to have people-- we used to put totes down there to bring-- to people that didn't get salmon, and mostly what they got was pinks and chums and that's-- that's the stuff they don't want (Respondent No.01, past deckhand).*

As further evidence of altered patterns of reciprocity, research findings indicate that some elders are forced to pay for fish, a relatively new, but prevalent, occurrence in the Nuxalk Nation. This social change is described by several Nuxalkmc:

> *The big change now is people hire people. They hire them for, like, 20 bucks a fish to cut, yeah. Because they don't have smokehouses. They don't have the wood. They don't have the time and, you know, like, I know for my niece, my niece gets hired quite a bit to go and cut for other people. Yeah, because either they're sick, you know, their health [is poor] and they can't do it. . . . People can't survive but a lot of people hire my niece, you know, and they can't afford to pay her a whole lot. So she charges them $20 a fish to cut it for them (Respondent No.34, past commercial fisherman).*

> *You can see our elders not getting any [salmon] anymore and they are-- they have to pay. . . Now it's—[all about the money]. . . Yeah, pay me. It's not [right] to charge them-- five to ten bucks a salmon (Respondent No.11, past commercial fisherman).*

> *But then again, when some of the people we'd go ask -- that are willing to go food fishing for us, we have to pay them (Respondent No.37, past commercial*

fisherman).

With reports that some elders are not receiving adequate resources, communal relations are being impacted as goods are no longer distributed based on need (*Cf*. Tiepoh and Reimer 2004:430). The deterioration of social networks clearly alters social capital relations in the community, as individuals turn to monetary payment for goods or services previously supplied though generalized reciprocity. According to Portes (1998:7) social capital differs from pure economic market exchange because repayment currency can be different and may be intangible and timing of repayment is unspecified. As fishing activities transfer from the realm of reciprocity into monetized exchanges, the socially beneficial byproducts are also lost. No longer are transactions based on trust of reciprocation at a later time, nor is social capital productive in terms of enabling access to resources. In sum, the benefits of these monetized transactions are likely confined to the exchange itself and fail to cultivate socially desired outcomes such as social capital and social cohesion.

Social Implications of Exclusion from the Formal Economy

Chapter 3 presents a discussion of how the Nuxalk have been marginalized from local formal economies, mainly the commercial fisheries but also forestry. Therein, we explore the implications of economic exclusion for participation in the informal fishing economy, describing how decreased boat access, limited fishing gear, excessive operating costs, and reduced financial resources have altered engagement in traditional fishing and processing activities. In this section, we present an analysis of the social implications of labour market exclusion by addressing how economic recession in the

community has impacted social capital and social cohesion. This discussion will be organized according to two social issues affecting the Nuxalk Nation as a result of economic exclusion: 1) unemployment and welfare dependence, and 2) intergenerational fishing inheritance and out-migration. This section begins with a presentation of data that describes the social climate of the Nuxalk Community when commercial fisheries were the dominant source of employment.

When fishing was the central economy for the Nuxalk, it provided many social benefits. Though fishing was often challenging, it was a defining livelihood and for many it was more a way of life than a job. When interviewing the Nuxalkmc many remarks pointed to feelings of community belonging associated with the fishing industry. The extent of community participation in the fishing economy was captured in the following quote.

> *I can remember commercial gillnetting with my dad and he worked for the Canadian Fish Company. And back then, they operated the Tallheo camp and there you could see, well, I would say, the fleet consisted of about 90 percent of Nuxalk fishermen. And the-- that was ten percent were from the valley, I think. . . . And in the camp itself, the women were employed too, in repairing the nets. . . . Our whole community was pretty well employed in the fishing industry (Respondent No.32, past commercial fisherman).*

The type of lifestyle that comes from working in the fishing industry also promotes cohesiveness among fishermen strongly linked to trust and solidarity. Although some fishermen in a fleet may have dislike for one another - perhaps related to past actions on the water or other personal grievances - there is an unwritten code to help one another when they are in need.

> *. . . out in the fishing grounds, you know, whether we like each others or not, if somebody's in trouble we have to help them and whether they're different races*

of people they have to do the same (Respondent No.31, current commercial fisherman).

That's just the way of life anyways out there and you have to be by yourself and your best friend corks you some day and you have to sit there and swear around at him or get mad at him or get upset with him. And you got to get back to the dock and park in the same dock and talk to that same person again the next day (Respondent No.13, current commercial fisherman).

Although getting rich in the commercial fisheries was not likely, having employment and being able to maintain a modest income provided a lifestyle that had value beyond income, including self-esteem, a sense of adventure, and pride, as described below.

'Cause I used to feel good when I untied my boat and I was going out there, going fishing, I just loved that. It was an adventure, it was exciting, it was dangerous, it was, you know, it was life, stimulating. Hard work though, too. I remember working seven days a week, ten, twelve hours a day and only fished one day a week. I can remember it being $1.50 to $1.80 a pound for chum in the round, back in '78, '79. You didn't need much to make money (Respondent No.04, past commercial fisherman).

As the fishery began to decline, however, there were vast changes in the community not only economically, but socially as well. In *Chapter Three,* I discussed the approach of the federal government to restructure the commercial fisheries and argued that First Nations like the Nuxalk were largely marginalized from the market economy during that process. Levitas (1996:8) presents a relevant discussion of exclusion from labour markets in the European Union (EU), which states that the marginalization of major social groups has been a challenge to social cohesion (European Social Policy 1994:49 in Levitas 1996). Levitas further references:

> The cause of exclusion is not the fundamental nature of capitalism…but contemporary economic and social issues which tend to exclude some groups from the cycle of opportunities. These marginalized, insecure and vulnerable

> groups are people excluded from social and economic life, young people unable to find a foothold in the economy, long-term unemployed, disabled and older people who should not be excluded from the benefits of – or from making an active contribution to - the economic strength (P. 8).

As will be demonstrated in the remainder of this section, the exclusion of the Nuxalk from the commercial fisheries, has, over time resulted in several similar outcomes as those described above. Interviews with Nuxalkmc present a stark contrast in the social organization of the community before and after the fisheries collapse. One retired commercial fishermen looks back to the height of the fisheries and associates with it an overall sense of a "happier time", linking this change to increased unemployment and illegal drug use.

> *Seemed like when I was growing up it was a happier time than now. Well, of course there wasn't any drugs . . . well, everybody was working. The ladies were working in the canneries, fixing nets and the men were fishing (Respondent No. 03, past commercial fisherman).*

The comments of another respondent similarly point to a change in the community associated with the loss of the fishing industry. No longer are there the same social support networks that provided help and assistance and this has caused a weakening in the social fabric of the community. In the opinion of this Nuxalkmc, it is the introduction of welfare, alcohol, and drugs that are contributing to diminished social cohesion in his community.

> *You see, when I was his age we used to be out in the boat all the time and seemed there were things, going to Tallheo, going out and-- crab fishing and-- it was a really good experience when fishing. But now I don't see, you know, like it used to be. I think it was exciting, exciting town and it was really-- when things were really happening. But now everybody's just on welfare, drinking, doing drugs and every person for themselves. Before it was helping each other, but now it's just changed from community to-- I don't know how you put it (Respondent No.23, past commercial fisherman).*

In Putnam's (2000:80) investigation of social capital in America he invests some time in the discussion of social connections in the workplace. He focused on the social productivity of economic unions and professional societies that are perhaps less applicable to the Nuxalk fisheries. However, similarities exist between the social capital produced through participation in work related organizations, and the engagement of Nuxalkmc in fisheries related activities. The author suggests that organizations are "an important locus of social solidarity, a mechanism for mutual assistance and shared expertise" (ibid). The comments of the respondent above point to the connectedness produced among members of the fishing community, and how those forms of solidarity and mutual assistance have declined as participation in the fisheries ceased, thereby diminishing the social capital held by those actors.

Unemployment and Welfare

Unemployment and dependence on government assistance have also had implications for social capital and cohesion in the community. After the fishing and logging industries collapsed, there were few employment options for the Nuxalk people. Government assistance in the form of transfer payments, unemployment insurance, and social assistance were designed to help people weather the short term financial challenges associated with exclusion from the economy. However, this system has been experienced by other First Nations, and has had adverse effects for social exclusion as Barash (1994) describes:

> The growth of government social-welfare programs in the 1960s has helped reduce the inequality of income and educational levels, but has arguably

> deepened Aboriginal peoples' feelings of exclusion, self-rejection and powerlessness (P.2).

For the Nuxalk, like many First Nation communities, the economy never recovered and government transfer payments became central to the Nuxalk as illustrated in the quotes below.

> *Interviewer:* *How has that affected the community here with fewer and fewer people in the commercial fisheries?*
> *Interviewee:* *Bad. Bad. Bad. Bad. It's so bad that at-- it's hard to find jobs anywhere besides logging in them days and now logging-- same thing happened to logging. It just vanished. No more logging. Everybody's living on welfare and what little jobs they can do on the reserve, it's, like, that's it (Respondent No.33, past commercial fisherman).*

> *. . . there's like 90 or 80 percent on welfare here. And that's just, you know, like it started when all the fishing was stopped and all the logging stopped (Respondent No.23, past commercial fisherman).*

The creation of First Nation dependency on government assistance is not unique to the Nuxalk, but a prevalent epidemic throughout Canada. Despite extensive government transfer payments, this approach has been largely ineffective in addressing issues of non-participation in the economy (Dixon and Scheurell 1995). While the solution to unemployment is, instinctually – employment, opportunities for meaningful engagement in labour markets are not available to many rural Nations, as Dixon and Scheurell argue:

> . . . not only is the organizing principle of categorical Social Assistance inappropriate to First Nation's cultures but it is also largely impractical. The desired solution to reliance on state support is that the recipient obtain employment in the wage economy. The securing of employment depends on the existence of a vibrant, accessible labour market. In Canada, nearly 63 percent of First Nations population lives in rural or remote locations. This means that the majority of the First Nations live at least 50 kilometers from a centre where there is a labour market (P.42).

The Nuxalk Nation is a prime example of dislocation from employment opportunities in the wage economy because it is remotely located deep in the Coast Mountains, approximately 1000km from Vancouver. With only a small number of Band and service sector jobs available, the "choice" is often to leave the community or stay and "make do" with seasonal employment or welfare and are therefore largely excluded from other economic opportunities. Several respondents associated government assistance with feelings of low self-esteem and demoralization. For families who had spent most of their lives employed in the commercial fisheries, losing both their livelihood and their self-sufficiency was psychologically and socially damaging. From the perspective of one community member, depression and alcohol abuse are strongly correlated to a lack of employment. For him, this has tarnished his hope for the future of his community and the coming generations.

> *So I mean, the other problem of course was drugs and alcohol. It's a real big downer for our people. Because they'd been so used to working hard all their lives, and then there was nothing to do. They become depressed and many turned to drinking. So you got those social issues, probably lack of productive work - direction or vision. And that's really the sad part of this community is economically it's dead right now. It doesn't give any hope or future for our young people to look forward to. What are they going to do? (Respondent No.04, past commercial fisherman).*

Comments made by another Nuxalkmc link changes in the community to decreased social cohesion, again, tying together the loss of employment, increased use of alcohol, and the stress placed on familial relations.

> *It's really hard because people used to be so proud that even if they had to go on welfare, they were ashamed of it. If they had to go to court, it was-- they were ashamed of it. Because they-- our people used to be really proud and be, I don't know, they were all just-- like happy-go-lucky, I guess, eh. That's just-- everybody*

> *seemed to get along more. But as everything was taken away from them, they seemed to, like, [be] more down and fighting [from] family to family. . . (Respondent No.42, past commercial fisherman).*

The effects of long-term unemployment and dependence on government transfer payment are complex, and the social implications run deep indeed. In particular, the link between social capital and community well-being has been widely explored in the social science literature. Dating back to the 1800s, Durkheim explored the relationship between suicide and social connectedness, arguing that an act of suicide is not solely about the persons' internal conflicts, but indicative of their belonging in their community:

> . . . of course his sadness comes from without in one sense, however not from one or another incident of his career but rather from the group to which he belongs (Durkheim 1897, 1997 in Kawachi and Berkman 2000: 175).

As Putnam (2000:326) notes, suicide is more frequent when rapid social change disrupts the social fabric. Since the work of Durkheim, the relationship between social connectedness and health outcomes has produced a great body of literature (*Cf.* Kawachi and Berkman 2000; Kawachi and Kennedy 1997; and Coburn 2000). This thesis does not address suicide in the Nuxalk Nation however; Durkheim's argument supports the link between exclusion and the well-being of those who feel isolated from society.

Intergenerational Fishing Inheritance and Community Out-migration

And the young folk don't stay with the fisherman's ways
Long ago they all moved to the cities
And the ones left behind old and tired and blind
Won't work for a pound, for a penny
(Stan Rogers, Make and Break Harbour)

Social capital research indicates that when an individual encounters unemployment, social ties with friends and relatives are the first utilized form of job searching (Putnam 2000:320). Among the Nuxalk, those interviewed similarly spoke of using social ties to enter the fisheries when those types of opportunities existed. Informally, people would be called on to run a fishing boat for a season, or help as a deckhand when needed. For others, social and kinship ties gave them a way to fully enter the commercial fisheries, by inheriting a fishing license and gear from a member of their family – often from their father. Today, however, there are fewer opportunities to call on social capital for employment, particularly in the fisheries.

One respondent demonstrates the change in fishery inheritance when he explained that he and his wife had intended to pass on their fishing gear to their son and grandson. Although, this fisherman does not use the term "social capital" he articulates a change in this pattern of inheritance as "the breaking of bonds", suggesting that social capital ties, as well as a valued tradition, are being lost as the fisheries come to pass.

> *. . . you don't have that bond any more. They're breaking the bonds that are traditional ways of our people. . . . fishing is a good way to live. It's a good healthy way to live and I would love to have my son do this and my grandson do this. That's why we bought the two boats for both my son and my grandson, hoping that they will get into the fishing industry after we do. You know you're not in a line up, a commercial line, working, or you're not under somebody's thumb, always looked at and pushed. It's a beautiful way to live and I hope that*

we could have continued to provide food for the world that way (Respondent No.15, current commercial fisherman).

There is also evidence to suggest that decreased fishing opportunities for youth are, in part, causing out-migration. For many of those who do not have the chance to fish as their parents had, staying in the community holds few employment opportunities.

Yeah, well you see the pattern here now is that most of the fishermen here and Nuxalk fishermen, have totally gotten out of it, you know. They haven't passed it down to their children like my dad did to me, eh (Respondent No.31, current commercial fisherman).

Well, there's less people fishing, less of our kids can get a chance to go fishing because the ones that did sell their license, their kids are not going to inherit it. So they're out of the picture and they can't afford to get into it. That's basically what I seen out of it all. They got to leave town. They basically go out, get a college education, leave town and are-- university education, become teachers, whatever they can become, lawyers. And stay away from here. There's no jobs here (Respondent No.01, past deckhand).

I guess in the last ten years, people started to move out of here. But fishing was a good life at that time (Respondent No.03, past commercial fisherman).

Yeah, it used to be booming town. Yeah, everybody made good money fishing at one time and-- there was a lot of industry going here then. But everything's come to a halt. So, yeah, this town is dried up pretty-- there's hardly any work here. Lot of people have left out of here. I think there's about 40 people that moved to Chetwin from here. And there's-- people have moved to the city. Everybody's sort of moving around, checking it out which is good for them, you know. It's a big world out there, you know (Respondent No. 11, past commercial fisherman).

One of the most critical ways that exclusion from the formal economy can transform social organization is through resulting out-migration. The exodus of people from rural to urban locations such as that which occurred during industrialization has been linked to the erosion of kinship and intergenerational ties associated with rural life

(Hofferth and Iceland 1998:574). This pattern is similar to that in the Nuxalk Nation as younger generations leave the valley seeking new opportunities. Although outmigration to urban economies may provide a variety of benefits to those leaving rural communities, those left may be vulnerable to social isolation, normlessness, and crime (Fernandez and Harris 1992; Park 1926, 1971; Sampson, Raudenbush and Earls 1997). [34]

In particular, the out-migration of the youth can negatively affect social cohesion as it removes a specific cohort of people from the community (Emke, Bruch and Wilkinson *forthcoming*). Comments from several members of the community describe how the migration of youth is negatively affecting their own quality of life. Some elders feel that they are being left behind, and others feel they are losing social networks and kinship ties that they have come to depend upon. One fisherman describes how some elders are no longer receiving fish because the people who fished for them have moved away.

> *Some of the elders don't have the people in their family [to fish for them] because there's so many people have moved. So many people have moved out of our valley, eh, and, you know, to go and work and go to school and-- because there's no jobs here (Respondent No.34, past commercial fisherman).*

For others, out-migration has meant that their entire family has left the community taking with them the social safety-nets that are provided through kinship ties in rural communities.

Interviewer: Has there been any changes in the community here because of the

[34] In this study, the analysis of outmigration focused on local effects experienced by individuals who have stayed in Bella Coola, rather than the experiences of individuals who have migrated. In relation to the informal economy, there may be resources or goods that both exit the community (e.g. fish) and enter the community (e.g. store bought items not locally available) as a result of those family and kinship ties that remain between people who stayed, and those who have left to seek other opportunities.

changes in the food fishery?

Interviewee: Yeah, people moving out. And because people are moving out, a lot of the young people are moving out and leaving us old people home. Like our family is gone. Not enough to keep them here. The fishing industry-- they used to help us in the fishing industry, both my grandson and my son, and they used to get a percentage. But because the food-- the commercial fishing is so low now, we couldn't afford to keep both of them working for us (Respondent No. 41, current commercial fisherman).

These quotes describing the disruption to familial organization are evidence of the deterioration of one of the three primary functions of social capital as described by Portes (1998:1), a *source of family support*. With the disappearance of youth from the community, those left behind are no longer able to call on their social capital to obtain needed resources. Without the strength of their familial networks, the social support provided has diminished as families become dislocated.

In terms of *bridging* and *bonding* social capital, it is difficult to make any definitive conclusions from the data, but there are several relevant observations. Regarding *bonding* social capital (characterized by dense social ties), the disruption of familial networks would likely reduce existing social capital, because those networks can no longer furnish productive resources. On the other hand, out-migration may generate *bridging* social capital as those who remain in the Nation may be able to capitalize on newly created networks outside their community. However, *bridging* social capital may have limitations in the type of knowledge and resources it can provide. For example, Nuxalk living outside Bella Coola could gain access to employment – a potentially valuable resource. However, for individuals who do not want to leave their community, *bridging* social capital may have little value in providing context-specific resources.

From the perspective of another Nuxalkmc, the out-migration of youth threatens the very future of the community. He acknowledges the sacrifices made when choosing to stay in the Nation and the challenges in sustaining a community with regular out-migration, likening the possible fate of his community to one that has already 'died'.

Interviewee: For our people, like I said, it [collapse of the commercial fishery] meant -- for some of our people it meant they had to move away. 'Cause there wasn't enough to sustain them here. I mean, even I myself, I thought of that. What do you put a value-- how do you value that, put a price on that? . . . You have to weigh those things that are valuable to you. In order to stay home, you have to make certain sacrifices. So we wanted that style of life and we would make that change and move. If we want this type of life and to be here at home, you have to accept what's here and try to make the best of it. That's a dilemma many people are going through, right? Yeah, a lot of our young people are leaving. I notice that, so that continues to happen, we're going to end up with basically mostly elderly people and young people here, right, children.

Interviewer: And how does that affect the community?

Interviewee: Well, it's-- it can be very, very difficult to sustain a whole community really. The community could die like Ocean Falls (Respondent No. 04, past commercial fisherman).

This respondent captures the social challenges faced when the collapse of the economy forces out-migration. As this occurs, there is a marked decline in the sense of engagement and integration in the community. Furthermore, exclusion from the formal economy and the subsequent dismantling of the community has created further stress associated with the uncertain future for those who are left behind.

Long Memories and Mismanagement: Nuxalk Participation in Fisheries Management and Perspectives of DFO as a Legitimate Institution

The last two categories of social cohesion *legitimacy/illegitimacy* and *participation/non-involvement*, will be assessed in this section. Most commonly in the social cohesion literature, *legitimacy* is the term used in to contextualize legitimacy that stems from relationships forged between the community and both public and private institutions (Jenson 1998:16). The author goes on to state that social cohesion ". . . can be threatened by rising ties of cynicism or negativity that question the representativity of intermediary institutions" (ibid). Associated with attitudes of legitimacy-illegitimacy are also attitudes of institutional trust which has been distinguished from generalized trust (Matthews and Côté 2005; Putnam 2000; and Veenstra 2002). Dimensions of institutional trust include impartiality, fairness, and principles against corruption (Rothstein and Stolle 2002:13). With respect to the Nuxalkmc fisheries, these views of legitimacy and trust are directly related past experiences of non-involvement in decision-making and fisheries management initiatives.

The theoretical work of several scholars has addressed the relationship between social capital and institutions/government. Rothstein and Stolle (2002:8) divide the approaches into two categories 1) attitudinal 2) institutional-structural. Scholars who take an *attitudinal* approach examine the relationship between institutional/political trust and generalized trust. Although studies have identified varying degrees of correlation, scholars in this camp generally argue that social capital can be useful in the development of effective political institutions (ibid). Other researchers who take an *institutional-structural* approach generally argue that the production of social capital is

contingent upon institutions and the state as a generator of social capital (ibid). Despite the debates, the causality between social capital and institutional performance is still unclear. Rothstein and Stolle acknowledge the work of Brehm and Rahn (1997) who attempted to clarify the causal relationship between social capital and institutions, and found that:

> . . . confidence in institutions has a larger effect on interpersonal trust than the other way around, even though . . . both types of trust influence each other (P. 1014).

In this section, I take an institutional–structural approach by examining perceptions of institutional trust as they relate to the resource management institutions in the Nuxalk Nation, namely the Department of Fisheries and Oceans. Levi (1998:86) argues that "governments can realize their capacity to generate trust only if citizens consider the state itself to be trustworthy". In the Nuxalk Nation attitudes of trust and legitimacy toward governance structures, such as the Department of Fisheries and Oceans, is embedded in multifaceted historical and cultural contexts. The Nuxalkmc remain sovereign peoples, never having conceded their rights and title to their traditional territories – neither on the land nor and in the sea. Thus, actors are legally bound to abide by management policies imposed by an institution that has historically been viewed as illegitimate. By articulating current attitudes with respect to trust and legitimacy it is possible to gain a better understanding of social cohesion in the research community.

Past management policies in the community have produced questionable outcomes in terms of sustainability and social and economic well-being. Of those

Nuxalkmc interviewed, many expressed concerns about the legitimacy of management strategies, and few conveyed trust that the government was capable of effectively managing local marine resources. The distrust of government has largely become embedded in the consciousness of many fishermen.

> *Interviewer:* *Do you remember some of the buyback programmes… the Davis Plan or the Mifflin Plan . . . Do you remember what people's impressions were, those strategies? Or what people were talking about when there was the buy-back.*
>
> *Interviewee :* *Well, I think in most of the fishing, at least that I remember, -- they agreed in principle with that, trying to preserve or conserve, right? That was the intent. But most of the fishermen that I knew just didn't trust the government. I'll always remember that. Same old story of the rich getting richer and the poor getting poorer. There was no long-term benefit for us (Respondent No.27, past commercial fisherman).*

One retired commercial fisherman discussed the introduction of high-capacity seine boats and the subsequent depletion of salmon stocks near River's Inlet. Although expansion of the seine fleet occurred during rationalization, feelings of anger toward these events remain vivid.

> *So the seine boats would scoop them up [Sockeye], they'd get way down deep and scoop them up down there and that's how they wiped out that Rivers Inlet sockeye. -- ever since then, Rivers Inlet has been struggling with their stocks. It's never recovered yet. I'd always remember that. I was so angry. Couldn't believe they [DFO / the government] let them do that. It was always a struggle in management, fisheries management was always a problem. It's always a big fight or war over that. Because of the money, right? I mean, some people made a lot of money. A lot of people got rich in fishing. Especially the seine boat operators, fish companies. Became very wealthy (Respondent No.04, past commercial fisherman).*

In the final words of this quote, the respondent also notes that decision-making was skewed by money and that this institution did not make decisions that were in the best interests of the resources. Here it is the perception that the government was not

making decisions based on impartiality and fairness - inherent dimensions of trust. This perception is echoed in the comments of other respondents who raise similar questions about the agenda of managing institutions. Among these comments, perceptions of mistrust are pervasive. The following respondent exhibits skepticism about the legitimacy of the government to the extent that they question if resources are being intentionally mismanaged. The comments reveal a sense of non-involvement in the decision –making process, that members of the community have no say in fisheries policy or control of management outcomes.

> *I hope the government wakes up and sees the problem they are creating, or could the government be doing this for a reason? They know that these fisheries are going to kill our fish. So is it another form of genocide like they've been doing all these years? (Respondent No.41 current commercial fisherman).*

Others extended these perceptions of illegitimacy and mistrust, as they expressed beliefs that the DFO has hidden agendas and that decision-making is influenced by the financial power of stakeholders such as the aquaculture and oil and gas industries. Although Misztal (1996) and Tyler (1989) speculate that the credibility of government institutions is positively affected by social trust, Kasperson, Golding, and Tuler (1992) contends that institutional trust is contingent upon the performance of social institutions. For this Nuxalkmc, the past actions for the DFO have tarnished the credibility of the institution, and his trust has waned. Consistent with the general claim that "trust is hard to find and easy to lose" (Rothbart and Park 1986) the Nuxalk attitudes of trust and legitimacy date back in time substantially. The next respondent combines memories of events that diminished his trust in management and personal observations of resource decline to construct his perception of DFO's as a non-credible

institution.

> *I kind of wonder about the credibility of Fisheries. They seem to have no control or they seem so relaxed in their-- what they're supposed to do. Like, all these things have transpired, like, the depletion of all the resources. They should have been there—Fisheries . . . on their toes . . . but 30 years ago we heard that the Fisheries have a different agenda than 'fisheries'. It was agenda of oil companies, eh, that they were going to break the backbone of the fisheries union up and down the coast. That was the talk about 30, 35 years ago. Yeah, and it's been carried out, you know, it's a secret agenda they said back then. But look where it is now. You take a look at Klemtu, all their resources are gone there. There's nothing out there, completely-- before they were self-sustaining now-- where was the Fisheries? They were busy looking, listening to the oil companies' agenda, eh. Well, why-- if they were viable, why weren't they there for Klemtu? I mean, this is such a small territory they could have been looking after it but and the only alternatives that Klemtu had was to go into the farmed salmon, right (Respondent No. 34, past commercial fisherman).*

A common theme throughout these quotes is the sentiment of being let down by management as heard in the phrases *"why weren't they there. . .", "Couldn't believe they [DFO / the government] let them do that. . . ", "They should have been there. . .".* If we consider for a moment, a simple definition of trust as "a bet on the future contingent actions of others (Sztompka 1998:20)" the history of disappointment in DFO conveys a stark lack of institutional mistrust. This has manifested to the extent that several Nuxalk now question the hidden agendas of fisheries management. Whether or not, these perceptions are correct is extraneous in this discussion; the significance lies in the latent attitudes of illegitimacy and mistrust that are associated with the Department of Fisheries and Oceans.

The issue of power also warrants consideration when discussing legitimacy and trust. Within the social capital literature, power imbalances have been linked to poverty and the exclusion and marginalization of groups from public, private and civic

institutions. Theses forms of exclusion are created and maintained by power relations, according to Woolcock (2001:75). Discussions with members of the Nuxalk community elucidate underlying feelings of disempowerment in terms of resource use, as well as securing future access to traditional resources.

The history of Nuxalkmc disempowerment can be dated back to European contact and the eventual colonization of Nuxalk lands, the imposition of residential schools and Reserves, and marginalization from the commercial fisheries, for example. In the preview of several Nuxalkmc, it is an underlying power imbalance that is the crux of conflict in the commercial fisheries. One respondent feels that the Aboriginal Food Fisheries is not on equal footing with the sport fisheries. In terms of quota allocation for salmon, First Nation food fisheries are second only to conservation requirements under the Aboriginal Fishing Strategy. Despite this arrangement, this respondent believes that sport fisheries hold more power towards the Government, than do First Nations. This view also signals feelings of illegitimacy toward DFO policy and feelings of resentment toward the sport fishery for failing to initiating conservation strategies.

> *So the numbers are declining. You would think [the sport fishery] should do the same as us. Close down for four days, let some [salmon] go through instead of having [fishing] opened all the time. . . . you know, we did this on our own. We put a four-day closure on our food fishery. You think they'd do that? . . . Are they waiting for us to do it again? We're not going to save the salmon. 'Cause we're just one river and each Nation is only one river. But they do fish and those guys are right out in the open. They're doing it all-- every year. DFO's going to have to take a good look at that. Say, "Whoa." Are we wiping it out? Are we going to try to stop this? They're too scared of the sport fishery. The sport fishery's a big power -- the sport fishery is above us, whether we like it or not. People say we're on top of the sport fishery. The sport fishery's supposed to be even below the commercial fishery. But, no, they're-- they got more power than the commercial fishery. They got more power than us (Respondent No.01, past deckhand).*

Another factor contributing to perceptions of illegitimacy is found in the disjuncture between the government's approach to resource management and the traditional stewardship patterns of the Nuxalkmc. In the following comments, the respondent feels like Nuxalkmc traditional knowledge is not perceived as credible within the scope of fisheries management.

> *They had a logging camp up in Kimsquit and [I] recall these-- the Kimsquit dogs [salmon]. They call them the beach spawners, they spawn on the beach and you know how government is, they don't really understand our country, like, our territory. They don't-- I guess don't believe the Natives, don't really want to accept their knowledge on account of they're not-- I call it "certified." And certification is a big factor now in the whole system and the people that live there are more certified than anybody that has gone through a university and all that, eh. I'm not calling them down, but it's just that-- the way I look at things around me. . . But it's all been mismanaged (Respondent No.15, past commercial fisherman).*

Several Nuxalkmc commented on discrepancies between fishing methods they were bound to under law and those grounded in their cultural beliefs and traditional stewardship practices. One example of this disjuncture stems from the prevention of clearing the river of log jams. For the Nuxalkmc, this practice was vital to maintaining spawning grounds in the Bella Coola River. However, now because of government regulations, the Nuxalkmc can no longer participate in their own traditional resource management practices.

> *Our elders used to burn all the log jams in the river and burn them so that they'd disintegrate and then they'd break up and come down because there was too many logs and the Fishery [DFO] stopped that. Now the river goes from this way to this way and there is a main stream of salmon spawning channel right here in the river and then when that got blocked off, where did that river spawning channel, where did [the salmon] go? They moved; they never went back. They just died off and when the river came this way, no w the fish go up this way, we lost a certain part of where the fish spawned. So that was mismanagement of that, too, in the rivers because of all the log stumps coming down from all the*

over-logging making deserts out of the mountains and creating log jams in our river. And our elders before looked after all those in the river, burned it all and tried to control it eh? So the river wouldn't change as much. Now nobody does anything because it's against the law, DFO's law (Respondent No.09, past deckhand).

***. . .** back then, we used to sneak up the river and we used to go cut the logs, the log jams up, eh. . . . So that . . . it just washes [the logs] out. Now we can't--we're not allowed to do that, eh. . . (Respondent No.12, past commercial fisherman).*

Other regulations are also met with sentiments of illegitimacy. The implementation of onboard boxes to revive Coho salmon is largely viewed as an ineffective strategy to increase stock size. One individual even viewed this policy as conflicting with their cultural beliefs regarding appropriate harvest and utilization of salmon.

Yeah, they [DFO] do bother us and then the worst part of it is that if the fish dies, if the Coho dies in your net, you know, they want you to throw that Coho back into the water. And to us that's the most, most dishonorable thing to do because that fish is meant for somebody to eat (Respondent No. 41, current commercial fisherman).

For others, it is the enforcement of fishing regulations that conjures fear of the DFO. Through this power-relationship the Nuxalkmc concede to regulations despite viewing them as illegitimate. It is important to note, however, that compliance with institutional law does not necessarily amount to an acceptance of an authority as legitimate (Lagenspetz 1992:12).

And I don't think they have really done their calculations and planning on that part because we'd be spending all day trying to revive Cohos. But most of us wind up just throwing them back in the water because we fear the DFO and their systems and their challenges, their by-laws (Respondent No.31, current commercial fisherman).

And some people, they go through all the expenses of making a box right in their boat and having the motor pumping the boat and flush out the-- pump in the water and flush out the water and that's a major expense for the sports fishermen, too. The government regulates for the sports fishermen and they have these Fisheries [officers] that come from boat to boat to boat to check each one of us so there's like a police force out there – Fisheries Yeah, they've got hand guns-- Hand guns and everything. They come and they-- they almost-- …they pushed me right over my net . . . They harass us out there. They come so quickly with their little fast boat, they stop beside your boat and then they make your boat go over your net. They hop on to the boat and they check you really fast to see, you know, they come so quickly so that-- to catch you-- you doing something wrong. So they're like another military out there (Respondent No. 15, current commercial fisherman).

The attitudes of mistrust and illegitimacy carry through when discussing future opportunities for the Nuxalk in the commercial and food fisheries. Although it was not a common theme, two members of the community who were interviewed expressed skepticism towards government initiatives to increase First Nation access to the commercial fisheries. The following comments indicate a perception that such initiatives would result in First Nations being negatively affected if further stock decline is experienced. These sentiments suggest a perception by some First Nations individuals that their Nations will be put into a position to destroy salmon resources.

So what have we got left? That's why-- I don't know, just do the buy-back, give it [commercial access] to the Indians and let them fish it and say they done it? [Laughs] There's all kind of different scenarios go through my head . . . (Respondent No.01, past deckhand).

It's already destroyed [the salmon stocks] . . . "They did it. They did it." No, I guess what it comes down to is they [the government] finally get you involved in putting the brand new chrome saddle on a dead horse. That's really what it is, and giving you those concessions (Respondent No.18, past commercial fisherman).

The above reference to "a chrome saddle on a dead horse" implies that the government is giving First Nations new opportunities to access a resource that is already

destroyed. Another respondent voices similar uncertainty for the future of First Nation fisheries.

> *[The government is] trying to eliminate [Native Fisheries]. They're trying to make it so that only the rich are going to survive on it. And the ones that don't have money in the end are going to end up selling their license because they can't make ends meet. You know? And they're going to just come in and they're going to snag all of these licenses (Respondent No.13, current commercial fisherman).*

Furthermore, this fisherman's negative perception of fisheries management is so strong that he believes the youth should avoid the commercial fisheries altogether.

> *Interviewer: Do you think it's a good idea for the younger people now to get involved in the commercial fisheries?*
>
> *Interviewee: No, the reason why I'm saying no, there's too much mismanagement, eh. Until they get their shit together, the way I would say it, then it would be a good lifestyle. But today, no, on account of it's-- total mismanagement (Respondent No.12, current commercial fisherman).*

Clearly the current attitudes toward the DFO convey a relationship grounded in mistrust and illegitimacy. Namely, these attitudes stem from the negative impacts of past management strategies, the great extent of non-participation in decision making processes, the perceived power imbalances and illegitimacy of DFO management strategies and, the insufficient recognition of traditional knowledge and stewardship practices. In a community where access to traditional resources is central to cultural identity and patterns of informal exchange, the current perception of DFO threaten social capital and cohesion by eroding institutional trust and legitimacy.

Conclusion

The purposes of analysis in this *Chapte*r was to articulate the changing nature of social capital and social cohesion in the Nuxalk Nation as it relates to fisheries participation. Using four categories that reflect community social cohesion to organize the discussion (belonging/isolation; inclusion/exclusion; participation/noninvolvement and; legitimacy/illegitimacy) (Jenson 1998), interview data was analyzed in terms of altered social organization related both social capital and social cohesion.

Based on the results of this analysis it can be concluded that social capital and social cohesion have been substantially altered in the Nuxalk Nation as a result of decreased participation in the commercial fisheries and resulting constraints on food fishing. With respect to the first category used, belonging/isolation, findings suggest that social networks, exchange systems, and modes of generalized reciprocity have diminished because of the hindered ability to engage in food fishing activities. Decreased food availability, largely resulting from constraints on fishing infrastructure and income, have meant that many in the community experience less access to these important food resources. The inability to access fish has meant that some members of the community have become isolated from exchange networks, while other members of the community reduce the scope of their kinship networks in order to meet basic household requirements. Although kinship networks remain valued among the Nuxalkmc, they often do not supply needed resources as they once had because members of the community are reducing their scope of exchange. In particular, some individuals facing significant economic constraints (elders, for example), experience

isolation from social networks and the subsequent loss of access to traditional food resources and the incidental social benefits such as a sense of belonging in the community.

Together, these findings suggest that members of the Nuxalk Nation are experiencing increasing isolation from social activities associated with fish production, sharing activities, generalized reciprocity, and participation in social and kinship networks. To the extent that these activities are directly embedded in Nuxalkmc communal relations, they demonstrate the erosion of related social capital and the social cohesion that the harvest and exchange of fish resources that are representative of the Nuxalkmc ways.

Within the second category, inclusion/exclusion, the comments of members of the community demonstrate that marginalization from the commercial fisheries has resulted persistent unemployment and the consistent outmigration of young adults from the community. Some members of the community have experienced the substantial loss of family members, and also their valuable kinship and support networks. Elders in particular are negatively affected by outmigration because of their reliance on those forms of support to meet their own needs. In addition, the collapsed commercial fisheries has meant that fewer families can pass on their commercial fishing businesses to their children. As some respondents indicated, this has meant the loss of *bonds* represented in the fishing lifestyle, and central to the Nuxalkmc sense of community. Combined, outmigration and unemployment continue to diminish social

solidarity associated with fishing, and have replaced a once vibrant and valued fishing economy with an uncertain future.

In the final section of this *Chapter* two categories (participation/non-involvement and legitimacy/illegitimacy) were used together to discuss the history of fisheries management and Nuxalkmc perceptions of the Department of Fisheries and Oceans. Overall, analysis indicates that the perceived illegitimacy of the Department of Fisheries and Oceans is fundamentally related to the Nuxalkmc history of non-involvement in decision-making processes and the contemporary management of fishery resources. Especially linked to these perceptions of illegitimacy is a predominant view that the institution has not effectively managed nor protected fishery resources in the past. As Jenson (1998:16) notes, "social cohesion can be threatened by rising tides of cynicism or negativity that question the representatively of intermediary institutions. . .". The low levels of institutional trust toward DFO, therefore, suggest that social cohesion in the community related to the future of Nuxalkmc fishery resources remains a point of concern for the well-being and resilience of the community.

All together, findings demonstrate the critical ways that social capital and social cohesion can be altered as a result of resources management policy. In this research context, the creation of social capital is largely contingent upon other forms of capital including physical capital in the form of fishing infrastructure (boats and gear), financial capital in the form of cash to purchase fuel, and pay for maintenance), and finally natural capital in the form of sufficient marine resources to enable the sustained harvest of foods for subsistence purposes and exchange. As a result of marginalization from the

commercial fisheries, limitations have been placed on the capital resources available to the Nuxalkmc. These combined limitations have, together, meant that participation in food fishing activities and exchange has diminished because of people's ability to participate, rather than their willingness.

This analysis has also demonstrated the value in using social capital and social cohesion to capture forms of loss that are often unaccounted for in resource management contexts. As the negative social implications of management decisions can be cumulative and occur over long-time scales, it can often be challenging to identify and characterize losses that a resource-based community may experience. As we have revealed in this *Chapter* the Nuxalk have experienced losses in various dimensions that contribute to social capital: sharing and generalized reciprocity, kinship and social networks, family support, and trust. Together, these attributes reinforce the social fabric of any community and produce cohesive and resilient societies. Unfortunately, these community dimensions are not well understood or accounted for in the development of resource management policies. However, by investigating the long term implications of resource management policy using social capital and social cohesion, perhaps we can better grasp the complex social outcomes, and develop new policies to encourage the generation of social well-being.

Chapter 5: Conclusion

Although the number of lost fishing boats and licenses can be counted and perhaps replaced by a government cheque, how do we begin to tally or articulate the loss a fisherman feels when he cannot pass on his fishing boat to his son or daughter, as his father had to him? How can we understand the way a community changes when they can no longer share with their neighbours those beloved ocean foods that "nourished their ancestors since time immemorial"? And what does it mean to the identity and well-being of a community that watches as countless youth, full of life, leave their home in search of opportunities it cannot offer, now that the "*fishing is gone*?" This thesis has attempted to answer questions such as these by using social capital theory as it inheres within the Nuxalkmc informal fishing economy. In doing so, we have demonstrated that these theories can provide useful tools to describe and frame those invisible, often unaccounted, losses a community may experience in response to a declining resource-based economy.

To undertake an investigation into changes in the Nuxalkmc commercial and food fisheries over time, we have set out to answer the three following questions:

- How did historic participation in the early commercial fisheries/canning industry influence traditional[35] food fishing practices?
- How have fisheries policies since the late 1960's (i.e. rationalization strategies) affected Nuxalkmc participation in fishing related activities?

[35] While I recognize that practices designated 'traditional' can be so assigned for political purposes and that some traditions are ephemera, others are enduring. Salmon, for example, is integral to Nuxalkmc tradition historically and presently

- What are the long-term social, economic, and cultural effects that have resulted from altered participation in the commercial and food fisheries?

In the next several pages, a summary of key research findings will be organized using the above questions. This will be followed by a discussion of our research contributions, implications for policy and recommendations, a discussion of research limitations and future directions, and finally, some closing remarks.

Summary of Findings

1) How did historic participation in the early commercial fisheries/canning industry influence traditional food fishing practices?

Since the Nuxalk Nation first came to be involved in the commercial fishing industry in the 1800s their course of engagement in fishing activities has been altered significantly. The Nuxalk Nation, like others throughout the coast of British Columbia, took to participation in the cannery sector with relative ease, largely because fishing was the basis of their pre-contact economy. As colonial control of fishery resources prevailed, First Nation's experienced consistent dislocation from their traditional resource practices, largely grounded in the colonial assumption that fish were 'common property resources'.

A number of factors culminated over time to impose upon First Nation a distinction between "food" and "commercial" fishing. Examples of these related policies include the implementation of the reserve land system, prevention of the sale of traditionally harvested food fish for commercial purposes, the implementation of food fish permits in 1917, and the later marginalization of First Nations from the

commercial fisheries through rationalization strategies beginning in 1969. In one capacity or another, the overarching desire of governments, whether colonial or contemporary, to gain control of British Columbia's fishery resources has prevailed. As this study has shown, the costs to the Nuxalk Nation have been significant as they have become dislocated from an industry central to their contemporary culture and economy.

As demonstrated in *Chapter* 3, policies and imposed colonial rule (and later the Canadian Government), not only worked to control First Nation engagement in fishing activities, but also to control the role of fish exchange in First Nations' economy. Prior to contact, First Nations made little distinction between the fish used for exchange, barter, consumption, or cultural purposes. That is, the methods, gear and timing of fishing were not differentiated on the bases of fishing for "food" or "economy". Thus, as First Nation communities such as the Nuxalk became involved in the commercial sector, they often carried on these non-differentiating practices in their new modes of fishing. Commercial infrastructure became integral to obtaining food fish as both gear and boats were incorporated in subsistence fishing and contemporary commercial practices. Over time, not only has there become a great reliance on commercial infrastructure, but the cash income from the commercial fisheries has also become central to subsistence food fishing activities as items such as trucks, gas, and sugar are now part of more traditional modes of harvest and production.

2) How have fisheries policies since the late 1960s (i.e. rationalization strategies) affected Nuxalkmc participation in fishing related activities?

Research findings suggest that commercial fleet restructuring has been detrimental to Nuxalkmc food fishing practices because of the pre-existing integration of commercial fishing equipment and income into the informal economy. Industry rationalization beginning in the 1960s and aimed at increasing efficiency in the commercial sector, actually resulted in decreased Nuxalkmc participation and, thus, the loss of vital fishing boats, gear, and income.

As government control of the fishery resources increased, many First Nation fishermen came to depend on fishing companies for loans and financing. The lack of capital available to First Nation fishers who were frequently unable to 'qualify' for bank loans, meant that many First Nation fishermen lingered on the periphery of the industry, often using small boats in poor condition. The dependence of First Nation fishermen on the fishing industry, and the fishing companies that secured their participation in the sector, left many fishermen vulnerable to fisheries policies such as the Davis and Mifflin Plans. Over the course of fisheries rationalization, First Nations were consistently marginalized from the commercial fisheries.

A central paradox in the Nuxalkmc story is that this community, like many First Nations, was allocated reserve lands equivalent to a mere fraction of their traditional territory. At the time or allocation, land allotments were largely based on government views that fishing was the primary source of subsistence, and the encouraged dependence of First Nations on the commercial fisheries. As the Nuxalk Nation

experienced a decline in participation the commercial fishery of 95 percent from 1953-2008 (Fig. 2) their relatively small reserve lands in addition to their geographic isolation, left the Nuxalkmc, like many First Nations, with few opportunities to participate in the formal economy.

For the Nuxalk, the sale and foreclosure of fishing licenses has also meant the loss of critical infrastructure and income needed to exercise their First Nation right to fish for food, social and ceremonial purposes under the Aboriginal Fishing Strategy agreement (Fisheries and Oceans 2008). That is, though the Nuxalk now have the *right* to food fish, their decreased participation in the commercial fishery has restricted their ability to engage in the food fishery and, thus, to *access* these resources.

3) What are the long-term social, economic, and cultural effects that have resulted from altered participation in the commercial and food fisheries?

Our research findings suggest that the implications of decreased access to subsistence resources extend beyond the very decline in access, permeating social and cultural patterns of exchange intrinsic to informal economy. This system of exchange plays a vital function as a social safety-net when participation in the formal economy or government assistance does not meet household needs.

In addition to the invaluable role of marine resources as central to the cultural identity of the Nuxalkmc, many members of the community described their dependence on these foods as being related to current economic conditions in the community and significantly high rates of unemployment. Findings support Reimer's claim that the informal economy provides an alternative source of goods and services when the formal

economy is unstable (2001:5). Thus, among the members of the Nuxalk Nation, the formal economy and the informal economy are closely interdependent. This system has been an important way of maintaining access to foods needed for physical survival during the harsh economic circumstances since the collapse of the local logging and fishing sectors.

However, the benefits of the informal economy have been compromised by the very fisheries policies that increased its importance to Nuxalkmc well-being after fisheries restructuring. In particular, participation in offshore fisheries requiring fishing boats has declined because of industry restructuring. This has meant decreased consumption of important foods such as clams, halibut, seaweed, prawns, and other species.

Furthermore, the constraints placed on accessing more distant resources appear to be causing a greater dependence on the local river fishery, a more feasible and accessible alternative. However, this fishery is experiencing increasing demands on already declining salmon stocks. As the local population grows, there are significant concerns locally about the sustainability of this fishery and the future food security for those members of the community who depend on it.

These changing patterns of resource harvesting activities within the informal economy have extensive social implications for Nuxalkmc community. Generalized reciprocity related to the exchange and redistribution of marine resources has traditionally been an important way for First Nations to reinforced cultural norms and obligations to share. These acts of redistribution also maintained patterns of trust and

communal support. However, the strength of these social ties that contribute to social capital and social cohesion appear to be faltering as individuals experience constraints in their ability to access marine foods. As a result, there are increasing reports of community members needing to "fend for themselves", rather than relying on social networks and community support.

Other sources of community belonging (a vital source of social cohesion) are also being negatively affected by decreasing access to marine resources. Community reports indicate that kinship networks are shrinking as individuals reduce their scope of sharing and focus on meeting household needs. On the other hand, some individuals are pooling their available resources to engage in fishing activities. However, these resources pooling networks, too, are diminishing as people struggle to secure resources to contribute to the network - such as cash for fuel, or physical capital such as fishing gear. These trends suggest that social networks related to fishing activities, and the social capital resources inherent in ties, are faltering. Without productive social networks, or physical resources, it is increasingly difficult for individuals to secure access to food resources.

Exclusion from the formal economy has also had additional implications for social capital and social cohesion. At one time, the forestry and logging industries supported community solidarity, and ample employment opportunities promoted pride in the lifestyles of fishing and logging. As these economies collapsed, and the Nuxalk were left largely dependent on unemployment and government assistance, many community members were negatively affected both psychologically and socially.

Entrenched dependence on government assistance and welfare has produced underlying feelings of demoralization and low-self esteem. Some members of the community even link these issues to local incidence of drug and alcohol abuse.

The inability of families to pass on fishing licenses and boats to the next generation has also compromised a significant source of social capital in the community. Social capital has also been negatively affected by the loss of fishing employment more generally, as networks used by members of the community to secure local employment has largely diminished. Subsequent outmigration that has followed the collapse of the fishery has further entrenched feelings of isolation within the community; particularly for elders who lost their kinship ties and social networks for accessing fish. In sum, as one member of the community noted, the inability to carry on their tradition as commercial fishermen is "breaking bonds" among members of the community.

Contributions

As noted in *Chapter* 1, relatively few studies to date have investigated how natural resource management policy impacts informal economies in resource-dependent communities. Accordingly, the findings of this study demonstrate that resource management decisions can have implications that span beyond the direct policy objectives and alter local patterns of exchange and redistribution within this vital exchange system. Specifically, our findings demonstrate that *access to tradable resources* is a determining factor that regulates participation in informal economic activity. Therefore, resource management policy that indirectly alters *access* to those natural resources needed for exchange (such as fish, game, or timber) can seriously

compromise this critical important system on which the social and economic well-being of the community depends. Our findings contribute to the growing body of literature in the social sciences that examines the community impacts of natural resource management policy. By bringing attention to the ways that the Nuxalk Nation has experienced the long-term effects of fishery restructuring, these findings also demonstrate the need for resource managers to consider how regulating access within a resource-based economy also regulates access to resources used for other purposes.

Furthermore, policies that dislocate First Nations from access to traditional resources also have the potential to disintegrate the social fabric of a community. In the literature, social capital is frequently associated with participation in ones' community. As this study reveals, in a First Nation context, participation is significantly tied to subsistence harvesting, production and exchange of marine resources. Thus, by disabling access to foods that are the source of exchange, socializing, networking, belonging, and cultural fulfillment, much more is lost than a food source. The value of the informal economy to First Nations, has additional relevance to community development. As many First Nation communities throughout Canada struggle with a suite of social challenges, including poverty, unemployment and health problems, the social benefits of the informal economy (i.e. as a source of social capital and social cohesion) may be relevant to community development initiatives.

As practitioners and scholars in the field of resource management continue to expand their focus on social and community aspects of management, social capital serve as a potential indicator when assessing the success of future policies. Existing papers

that have incorporated social capital into the resource management discourse have frequently focused on social capital as a tool for mobilizing society to achieve desired policy outcomes (*Cf.* Pretty 2003, Katz 2002).

Our application of social capital to investigate policy implications at the community level demonstrates a novel approach to utilizing social capital theory in a resource management context. By applying social capital theory as a lens through which to view the long-term, cumulative social changes the Nuxalk Nation has experienced, we are able to capture and articulate those social losses otherwise unaccounted for when assessing the implications of resource management policy. As a result, social capital may also be used as an indicator to assess the social impacts of management initiatives. For example, as the Department of Fisheries and Oceans implements integrated management planning in the Pacific North Coast, measures of social capital and social cohesion may be used to evaluate social and cultural objectives outlined in the plan (see Table 1, *Chapter* 1). As well, rates of participation in the informal economy may also be a valuable indicator to assess social, cultural, and economic objectives. For example, one cultural dimension within the PNCIMA objectives is the "maintenance of . . . access to traditionally used resources (Fisheries and Oceans 2007a)." Therefore, if decreased participation in the informal economy is observed in a community, it may indicate that *access to traditional resources* is being restricted.

In this study, contextual analysis of historical and policy documents provides evidence of how First Nations' fisheries participation has been physically restructured

and reorganized over time via changes such as the loss of fishing licenses and employment opportunities. By using local articulations from the Nuxalkmc as the basis for analysis, this study has been able to provide a voice to the nature of loss in the Nuxalk community - loss that would otherwise remain invisible. Qualitative interviews have not only provided an understanding of how fisheries policy altered aspects of community life, but more importantly, the meaning and implications of these losses for the very basis of social life in the community. By allowing members of the Nation to describe their own experiences, perspectives, and observations of changes in their commercial and food fisheries, we have been able to articulate those nebulous types of social, cultural and economic losses that are often overlooked when assessing the affects of resource management policy.

As a final point, this research design has helped to generate new ways to think about the interconnectedness of the formal and informal sector, particularly in terms of resource management policy and its potential implications for community well-being and resilience.

Implications for Policy and Recommendations

As the government of Canada attempts to implement oceans management initiatives on the Pacific Coast of British Columbia, there may be opportunities to create policies that promote participation in the informal economy and that also serve toward meeting social, economic, and cultural objectives set out within the Pacific North Coast Integrated Management Framework (Fisheries and Oceans 2007a). In the following section, policy recommendations will be presented in the context of the Nuxalk Nation,

but also speak more broadly to resource managers who not only seek environmentally sustainable objectives, but wish also to improve the social, cultural, and economic resilience of resource-based communities.

When discussing the future of the Nuxalk Nation's informal economy, their cultural ties to the resource base, and the resource exchange system that foster cohesiveness, the most predominant 'elephant in the room' is the ecological viability of local marine resources. Although we have shown that resource *access* is a critical barrier to participation, the greatest factor that dictates harvesting practices is the local availability of marine resources. It is not within the scope of this study to examine the management of specific marine resources utilized by the Nuxalkmc, however local observation of decreasing salmon stocks and eulachon stocks, as well as coastal trends, illustrate the uncertainties that characterize local resource access. Put simply, the future of the Nuxalkmc informal economy is largely contingent upon the viability of local marine resources. In this context, resource diversification may be a strategic way to buffer potential fluctuations in abundance.

In light of the barriers to participation in the Nuxalkmc informal economy described in this study, there are some recommendations to be made about addressing current constraints. As discussed in *Chapter* 3, expenditures on moorage, fuel, fishing gear, and vessels present considerable costs for many. Some Nuxalkmc contend that that these types of costs exceed the market value of the food resources obtained through subsistence activities. With reference to moorage, a number of Nuxalkmc claimed the annual fee (of approximately $1200) exceeded their means. This limited

retention of vessels once their commercial licenses were sold. In their declared attempt to meet cultural objectives of "maintaining . . . access to traditionally used resources (Fisheries and Oceans 2007a)", moorage costs could be reduced by the federal government or the Department of Fisheries and Oceans. This would thereby encourage the retention of boats for food fishing purposes.

In British Columbia, the Pacific Integrated Commercial Fisheries Initiative (PICFI) has been designed to increase First Nation fisheries access by granting communal licenses to eligible Nations. The Nuxalk Nation is currently in the process of submitting a joint application in collaboration with three other Central Coast Nations: the Heiltsuk (Bella Bella), the Kitasoo (Klemtu), and the Owekeeno (Rivers Inlet). Two conditions of the application are that:

1) Nations will not be eligible to fish outside their traditional territory (ie. no geoduck licenses in the Nuxalk territory).

2) Each Nation will not seek to participate in fisheries perceived as unviable (Fisheries and Oceans 2007b).

Should the joint PICFI application be approved, funds will be allocated to each Nation, and be used to purchase commercial licenses, fishing boats and gear, either directly from private sales or by purchasing licenses already acquired by the government through license "buy-backs". [36] This ensures that no additional licenses will be allocated in any commercial fishing area. Licenses obtained by the Nuxalk Nation would be managed by a locally developed enterprise, and funded independently of the Nuxalk

[36] The method of allocation has not yet been determined. There are currently four strategies to distribute these funds with different implications for each Nation.

Chief and Council (pers. com., Nuxalk Resource Administrator). This opportunity may provide valuable financial input and employment for community members.

From a food fishing perspective, there may be additional opportunities if the local Band Council can successfully acquires new fishing boats and licenses under the PICFI program. Commercial fishing vessels could also be used by members of the community for food fishing purposes in the Nuxalkmc traditional territory. These catches could be redistributed to members of the community, particularly those who are unable to engage in fishing activities or obtain resources by other means. Also, by improving access to distant marine resources, members of the community would likely would have increased food diversity. This may also help to decrease the current dependence on the local river fishery, and reduce fishing pressure there. This is especially important as the viability of local salmon stocks remain questionable, and also as the Nuxalkmc population grows.

Other First Nation communities in British Columbia have already organized similar strategies to obtain marine resources and redistribute catches to members of the community. For example, the Snuneymuxw First Nation on Vancouver Island has developed a detailed policy for the distribution of sockeye to members of the Nation (Appendix F). The comments made by a member of the Nuxalk Nation describe how similar harvest and distribution processes are carried out in another Vancouver Island First Nation:

> *And the Quatsino Band in Port Hardy . . . they have a seine boat that goes out every year. And they seine those sockeye. And the band pays for the crew of that seine boat, he gives that seine boat $1,000 to rent it for the day and go out and do that. They pay the crew, and they pay for the fuel. So that seine boat in*

that one day, it makes $4,000 or $5,000 and they go out and they seine and they load their hatches up with sockeye. And they come back in, and they deliver it. They bring in about 36 sockeye per household. And they go out and they long-line [halibut] [John] and them came back, they had 80 pounds of halibut filleted. And they go out and they get crabs. And they came back, and [John] had a whole bag of crabs on his counter. And I'm going, "Whoa. Where did he get that?" He says, "Oh, the Quatsino band, they send this seine boat out all of the time. And they get prawns and they give it to all of the elders and all of the people in the reserve" But that's what they do for their people. And they find funds for it. Why can't our bands here find the same funds to do that here, give [to] our people? (Respondent No.13, current commercial fisherman, [pseudonym]).

Though such a system in the Nuxalk Nation may not provide the social benefits that come from direct engagement in food fishing activities, there may be some positive outcomes if the Nuxalk Band Council were to implement a more organized and inclusive system of harvest and distribution. In addition to improving community food diversity and security, having equitable resource allocations may address current inequalities in the community and reduce feelings of animosity toward individuals who are viewed as taking more fish than they need. Inferential benefits from implementing a communal harvest and distribution policy may include a reduction in the illegal harvest and sale of food fish, and the decreased fishing pressure on local salmon stocks. As the physical, cultural and social well-being of the Nuxalkmc is directly contingent upon marine resources, creating a more equitable and inclusive system will also work to strengthen the community.

Engagement in the local informal fishing economy may also be improved indirectly though community economic development. Despite the importance of the informal economy as a safety-net during episodes of economic instability, this study has demonstrated the vital contributions from the formal economy, by providing necessary

financial capital. As discussed in *Chapter* 3, Ellison et al. (1997:265) indicate that minimum income levels are a predictor for engagement in this system. In his study of an Alaskan Yup'ik Eskimo village, Wolfe notes that "rather than decreasing subsistence use, larger monetary incomes enabled a producer to produce more subsistence foods than a producer with small monetary income (1979:32)", thus stimulating the informal economy. This argument has been confirmed by our findings as the Nuxalk have limited their participation because of financial constraints. Thus, increasing employment opportunities and the economic capacity of the Nuxalk Nation - even marginally through part-time or seasonal employment, may help to stimulate the informal economy. Increased employment opportunities would provide members of the community with disposable income to invest in the harvest of local marine resources and to purchase items needed for production and exchange.[37]

Limitations and Future Directions

This study has contributed to the knowledge of how *policy affects people* by articulating the ways in which the Nuxalkmc have been affected by declining commercial fisheries participation. The uses of informal economy and social capital theory have proven to be useful frameworks for understanding local changes in the community.

One research limitation pertains to the use self-reported qualitative data as the basis for analysis. While the examination of self-reported data allows a greater

[37] Although economic development could greatly benefit the Nuxalk Nation, it is difficult to suggest what type of ventures the community should engage in; this is also outside the scope of this thesis. However, the Nuxalk Nation is currently working to establish an independent forestry company to execute tenures under their Community Forest Agreement. Additional economic opportunities may be realized in the tourism industry, art, or the harvest of non-timber forest products such as mushrooms.

understanding of respondents' lived experienced and perceived changes in the local community, it cannot be used to conclusively determine specific quantitative changes in fish harvest, exchange or consumption.

As the government of Canada sets out to implement the Pacific North Coast Integrated Management Area, there is a valuable opportunity to assess the use participation in the informal economy and social capital as indicators in terms of social, cultural, and economic objectives. Under these conditions, it would be valuable to conduct a longitudinal study of how policies within the PNCIMA affect the local economies (formal and informal), including participation in the informal sector and community perceptions of social and cultural well-being. Such research might help to increase our understanding of strategies to sustain participation in the informal economy, and thereby improve well-being in communities affected by the collapse of their resource-based economy.

As a final point, it would be valuable to develop a quantitative assessment of social capital that spans beyond the informal fishing economy. Though fish (and related resources) are the central item for exchange, a detailed assessment of other goods and services would be beneficial. Similarly, having a more quantitative assessment of the degree of unmet economic need would be useful in gauging the success or failure of initiatives aimed at improving the local informal economy.

Closing Remarks

In the discourse of fisheries and fisheries management, social research perspectives often lie on the sidelines as natural scientists, economists, and resource managers attempt to manage fish populations, balance the demands of resource stakeholders, and maintain financial efficiency. This study has attempted to provide a social research perspective on fishery issues that affect the Nuxalk Nation. Past fisheries research by scholars in the disciplines of sociology, anthropology, political economy and other areas have made significant contributions to fisheries management, demonstrating the importance of recognizing how resource policy not only affects fishing people, but the communities that are defined by their relationship to those resources.

It is my hope that this research has contributed to this body of literature by offering a valuable perspective of the Nuxalk Nation and its struggle to uphold not only the instrumental value of marine resources, but their prominent role in maintaining culture, social capital, social cohesion, and community resilience. As increasing strain is placed on Canada's Ocean resources by development, habitat loss, oil and gas, aquaculture, climate change, and commercial and sport fisheries, the maintenance of healthy and resilient fishery resources is an exceedingly complex challenge. In turn, incorporating economic, social, and cultural objectives for resource-based communities adds yet another layer of complexity to resource management. However, by better understanding the multifaceted ways that policy can reverberate within and even cascade across the very structure and enduring qualities of resource-based communities

– communities like the Nuxalk Nation, we as scholars can positively contribute to the future resilience of our ocean resources and coastal communities. Both are integral to a changing Canadian nation state as First Nations and the political bodies that generate policies undergo changing relations and the understandings that will underpin a different future.

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Appendices

Appendix A: Table of Social, Cultural and Economic Objectives (Fisheries and Oceans 2007)

Social	A society that has a high degree of cohesion, and that has strong community relationships, and social structures is better able to embrace a coordinated approach to managing their relationship with the coastal and ocean environment. It is also better equipped to adapt to and mitigate any effects from a changing environment, and changing policies. Within this context several aspects of the social element may be focused upon, such as building and enhancing social capital; physical and emotional health; levels of trust (e.g. of community leaders, of government bodies and representatives, of other social groups etc.); and public perceptions (e.g. of ecosystem issues, of policies, of the planning bodies etc.).
Cultural	The health and stability of our coastal communities as cultural elements of the Canadian fabric depends on their ability to maintain traditional and historical connections, uses, and values with and of the marine environment. In particular, focus may be rest on aspects, such as languages, culturally distinct groups, non-market values (e.g. aesthetic, folkloric, artistic, and spiritual) and access to traditionally used resources.
Economic	Although some of the following elements may be emphasized more than others depending on the specific context of each region, the purpose of this objective is to support the building of economic opportunities and capacity through innovation, diversification of the economy and long-term competitiveness. This may focus on job creation and improved long-term employment opportunities, development of human capital and entrepreneurship, enhanced earned incomes, skills, technology innovation, capacity building and educational opportunities, and development of alternative industries and technologies.

Appendix B: Interview Questionnaire

A Study of Nuxalk Participation in the Commercial and Food Fisheries

UBC master's research in conjunction with the Nuxalk Marine Use Study

Interview Questions
Draft #3 - Final

Demographics

1) How long have you lived in the community?

2) Do many of your family members live here?

3) Do you have any children?

Section 1: Involvement

First I would like to talk to you about your experience in fishing.

4) Have you been involved in any type of commercial fishing, food fishing activities or shellfish gathering?

If yes: can you tell me more about what you do?
- seasonal, part-time, full-time
- Has the amount of fish you catch changed over the years?

If no: Did you fish in the past? Can you tell me about what you used to do?
- seasonal, part-time, full-time
- time of year
- smoking
- food fishing
- How long ago did you stop fishing?
- How did that change?
- How did those changes affect you?

5) Do you do any other type of work? [Probe for details on what kind of work, how long they have been involved, when they became involved and why].

- seasonal, part-time, full-time
- How many hours per week, or weeks per year
- Do you collect employment insurance (EI) during the year?
- Do you receive any other type of assistance from the government?

Section 2: Participation in Commercial Fisheries – seasonal/ part time/ full time

6) Do you currently own any commercial licenses to fish salmon, ground fish or other types of fish? Which species?

7) If currently involved in the commercial fishery:

   a) How many days did you go fishing this year?

   b) Is this more or less compared to other years?

8) When did you first get involved in fishing? How or where did you get your license(s)? How long did you have your license (s) for?

9) Are there other types of fish that you used to fish for but don't fish for any more? *[PROBE for details on relationships/traditions that may be present.]*

   - What species?
   - How many licenses did you have?
   - When did you stop fishing these?
   - Why did you stop?

10) Did you have any involvement with BC Packers? If so, to what extent?

11) How did the canneries change the way that people fished here?

12) What kind of relationship did people have with the canneries? [ie. Were they dependent on them financially for loans, leasing of boats, licenses etc.]

13) At any point in time do you remember an opportunity to sell your license (s)?

14) Do you recall any government programs that have affected you? (Prompts: Mifflin, Davis, fleet reduction, buy-backs of licenses).

15) Can you tell me what you remember about the programs? (Make sure you keep information specific to each specific plan – Ex. Start with the Mifflin Plan.)

16) Do you remember if people were talking about these programs at the time? What were they saying?

17) How did you feel about the government buying back licenses?

18) What did you decide to do with your license (s)?

19) How did you make that decision?

20) **If license was sold** – (some of the following questions deal with finances – you may decline to answer any question if you are not comfortable).

a) Did you talk to anyone before you made the decision? **If yes**, who? **If no**, why not?

b) Who did you sell it to? [Government, friend, fellow fisherman (known or unknown), did it stay in the community?]

c) What did you do with the money from the license? [If awkward, reiterate that the respondent isn't required to answer]

d) What do you think would have happened if you had kept your license (s)?

e) Would you make the same decision again?

f) If you had have kept your license (s)– what would you have done with it when you retired ie. Give it to a family member, sell it etc.

g) What do your children do now?

h) Did you do other work after you sold your license (s)?

21) **If license was kept?**

a) Who did you consult with when you made the decision?

b) Would you make the same decision again?

c) When you decide to stop fishing what will you do with your license (s)?

22) Do you remember how many other people decided to sell their licenses?

a) Do you know why they would have made those decisions?

23) Do you think people selling their licenses affected the community? If yes, how?

24) Have there been any changes in the community because of changes in the commercial fishery?

a) Has it affected the social life in the community as well? *[e.g. in regard to informal relationships or more formal organization]*

b) Has it affected family life? [PROBE for inheritance – not passing on the license to the next generation]

c) Has it changed the way of life in the Valley?

d) Have the changes affected your social life as well*? [e.g. Do you meet more or fewer people because of your job?]*

e) Has it affected your family or your relationships to friends?

25) When you **started fishing** (or before the 80s, 90s):

a) What were you fishing for?
   - What kind(s) of fish did you catch?
   - How long did you stay out for?
   - How often did you go?
   - How long were the openings?
   - Besides fishing did you have any other employment?

b) Did anyone go with you?
   - Helpers/ deck hands [is it paid help]
   - driver
   - Family and friends
   - Did they have other employment?

c) What did you do with the catch? [get info on commercial vs. f/s/c]
   - Sell it
   - barter or exchange - with whom?
   - give it away - to whom?

26) When you go **fishing now:**

a) What are you fishing for?
   - What kind(s) of fish do you catch?

- How long do you stay out for?
- How often do you go?
- How long are the openings?

b) Does anyone go with you?
- Helpers/ deck hands [is it paid help]
- Driver
- Family and friends
- Do they have other employment?

c) What do you do with the catch? [get info on commercial vs. f/s/c]
- Sell it
- barter or exchange - with whom?
- give it away - to whom?

27) Did the development of the herring fishery your participation in the commercial fisheries?

28) Have you noticed changes in the amount of fish that is caught? Can you describe to me how the resources have changed?

29) At what point was fishing most profitable in the past? How has the profitability changed since that point?
- How has this impacted you and your family?
- Would you say this is how most people who fish have been affected?
- What has this meant to the community?

30) Do you see future opportunities in the commercial fishery?

31) Would you want your children or grandchildren to participate in the commercial fishery? *[PROBE for details- e.g. because of income, traditional way of life etc., their visions on what the future of commercial fishing will be like.]*

Section 3: Participation in Food Fishery

Now I would like to talk to you about how the food fishery has changed over time, and your own participation in the food fishery.

32) How did you first get involved in the food fishery?

33) How many days did you go fishing this year?
- Is this more or less compared to other years?

34) Do you remember how people used to fish when you were younger?

- Time frame ie. 80s
- Did they fish alone or with other people?
- Who went with them?
- Did everyone in the community fish together, did families fish together, or did people fish alone?

b) What would they do with the fish?

c) How was fish bartered and traded in the past?

d) Is it different now? How?

e) Did they share it – if yes, how? Within the family, band, or given to the family Hereditary Chief?

f) What was the role of the Hereditary Chief in these activities?

g) Is the role of the Hereditary Chief different now? Have changes in fishing affected the role of the chief?

35) In the past were there Ancestral fishing areas that were fished by specific people or groups (ie. 'owned' by certain families or individuals?

- Are any of these areas the same today?
- How have they changed?
- Do you know how these areas came to be?

36) How have community fishing practices changed over time?

a) Has the number of people fishing changed?

b) What do you think has caused these changes?

c) Has access to the resource changed?

d) Do you see favorable opportunities within our Nuxalk food fishery?

e) Do you think something has been lost?

f) Since you have fished, have there been changes in any of these practices? *[PROBE for - causes such as government regulations.]*

g) Have there been changes in how fish is used? *[PROBE for - details on communal use, sharing, social activities related to fish harvesting/consumption etc.]*

h) Has this impacted any cultural practices? In what ways? *[PROBE for- details on how they organize themselves, traditional rules/norms, informal property rights etc.*

37) Have there been any changes in the community because of changes in the food fishery?

a) Has it affected the social life in the community as well? *[e.g. in regard to informal relationships or more formal organization]*

b) Has it affected family life? [PROBE for inheritance – not passing on the license to the next generation]

c) Has it changed the way of life in the Valley?

d) Have the changes affected your social life as well*? [e.g. Do you meet more or fewer people because of your job?]*

e) Has it affected your family or your relationships to friends?

38)When you **started fishing** (or before the 80s, 90s):

a) What were you fishing for?
   - What kind(s) of fish did you catch?
   - How often did you go and how long do you fish for?
   - How long were the openings?

b) Did anyone go with you?
   - Helpers [is it paid help]
   - Driver
   - Family and friends
   - Did they have other employment?

c) What did you do with the catch? [get info on commercial vs. f/s/c]
   - Smoking
   - Canning
   - freezing
   - barter or exchange - with whom?
   - give it away - to whom?

39)When you go food **fishing now:**

a) What are you fishing for?
    - What kind(s) of fish do you catch?
    - How often do you go and how long to you fish for?
    - How long are the openings?

b) Does anyone go with you?
    - Helpers/ deck hands [is it paid help]
    - Driver
    - Family and friends
    - Do they have other employment?

c) What do you do with the catch? [get info on commercial vs. f/s/c]
    - Smoking
    - Canning
    - freezing
    - barter or exchange - with whom?
    - give it away - to whom?

40) In the past were there certain ceremonies or events that took place around fish or fishing? Do these still take place today?

41) Have you noticed changes in the amount of fish that is caught? Can you describe to me how this has changed?

42) What can you tell me about the decline in eulachon?
    a) How has this affected you?
    b) Has this changed the way you share or trade eulachon or eulachon grease? How?
    c) Has this decline of eulachon affected your trade or barter practices?

Appendix C: BREB Research Approval Form

The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road,
Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - MINIMAL RISK

PRINCIPAL INVESTIGATOR:	INSTITUTION DEPARTMENT:	UBC BREB NUMBER:
D. Ralph Matthews	UBC/Arts/Sociology	H07-01415

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:

Institution	Site
UBC	Point Grey Site

Other locations where the research will be conducted:
Interviews will be conducted on Nuxalk Reserve or the in the adjacent town of Bella Coola. Interviewing will take place in boats, band offices, cars and trucks, school offices, restaurants or homes of interviewees depending on where interviewees wish to participate in the interview.

CO-INVESTIGATOR(S):
N/A

SPONSORING AGENCIES:
Social Sciences and Humanities Research Council of Canada (SSHRC)

PROJECT TITLE:
Nuxalk Marine Use - Values and Visions

CERTIFICATE EXPIRY DATE: July 28, 2008

DOCUMENTS INCLUDED IN THIS APPROVAL:		DATE APPROVED: July 28, 2007
Document Name	**Version**	**Date**
Protocol:		
research proposal	draft 1	July 11, 2007
Consent Forms:		
consent form	N/A	July 12, 2007
Assent Forms:		
parental consent form	N/A	July 12, 2007
assent form	N/A	July 12, 2007
Questionnaire, Questionnaire Cover Letter, Tests:		
interview guide	draft 1	July 12, 2007
Letter of Initial Contact:		
cotact letter	N/A	July 12, 2007

Other Documents:		
support letter of the nuxalk nation	N/A	July 12, 2007

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board and signed electronically by one of the following:

_
Dr. Peter Suedfeld, Chair
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair
Dr. M. Judith Lynam, Associate Chair
Dr. Laurie Ford, Associate Chair

Appendix D: BREB Consent Form

Dept. of Sociology
6303 N.W. Marine Drive
Vancouver, B.C. Canada V6T 1Z1

Tel : 604-822-2878
Fax : 604-822-6161
www.soci.ubc.ca

THE UNIVERSITY OF BRITISH COLUMBIA

January 2008

Consent Form

Project: *Nuxalk Marine Use Study*

Principal Investigator: Dr. Ralph Matthews, Dept. of Sociology,
University of British Columbia ph. (604) 822-4386

Co-Investigator: Ms. Lenore Burke, Institute for Resources, Environment and Sustainability, University of British Columbia

Purpose:
This research project is a partnership between the Nuxalk Band Council and The University of British Columbia to examine marine use activities in the Nuxalk territory. The purpose of this project is to evaluate the impact that changes in fishery license policy over the past 25 years have had on fishermen and other members of the Nuxalk community. We are also interested in discussing the importance of the food fishery to Nuxalk families and members of the Nuxalk community as a whole. The main goal of this study is to assist in the development of a marine use plan by the Nuxalk Nation that reflects the goals of the community. This project has been approved by the Nuxalk Band Council.

Study Procedures:

We are interested in talking to resource workers, elders, and other members of the Nuxalk Nation who are interested in talking about marine issues. You have been invited to participate in this research because we are interested in your experience with marine use in the Nuxalk territory. This talk may take 1 ½ - 2 hours of your time. Questions will mainly focus on how you personally use the marine environment in the Nuxalk territory, what changes have taken place regarding how you use the resource, and how

management policies such as fisheries licensing have affected you. Please feel free to ask any further questions about the procedures at any time during the interview.

Confidentiality:
The researchers commit to keeping your identity in strict confidence. Your name will be removed from our research materials, and you will never be identified in any publications or other research material. Hard copies of our data will be kept under lock at UBC, and electronic copies will be password protected. The only persons who will have access to this data are Dr. Matthews and the other investigators and research assistants on the project.

Remuneration/Compensation
You will not be paid or reimbursed for participating in an individual interview.

Contact Information about the study:
You may contact Professor Ralph Matthews (604-822-4386) with any further questions in respect to this study.

Contact Information about the Rights of Research Subjects:
You may contact The University of British Columbia Research Subject Information Line (604-822-8598) with any questions or concerns about my treatment or rights as a research participant.

Consent:
You understand that your participation in this study is entirely voluntary and that you may refuse to participate or withdraw from participation at any time without penalty or offence. By giving consent you do not waive any legal rights.

Your signature below indicates that you consent to participate in this study, and that you have also received a copy of this consent form.

_____
Name of Participant (Please Print)

_____
Signature of Participant Date

Appendix E: Nuxalk Nation Consent Form

LETTER OF CONSENT

A Study of Nuxalk Participation in Commercial and Food Fisheries To Support The NUXALK MARINE USE PLAN 2008 & UBC STUDENT THESIS

The Nuxalk Nation has embarked on a marine use planning process for our Nuxalk Ancestral Territory. The Nuxalk Marine Use Plan will provide:

- A Nuxalk vision for our Nuxalk Marine and Rivers Environments
- Values and perspectives on Nuxalk Ocean and River resources
- Goals, objectives and strategies for management of our Nuxalk Ocean & River resources and uses
- Nuxalk special management areas that will protect Nuxalk fishing areas and other culturally important areas
- Assert Nuxalk and educate 3rd party interests (Canadians, British Columbians, and other 3rd party interests of our Nuxalk Hereditary Rights & Title to rightfully manage and protect our marine and river resources

As Nuxalkmc, and as a holder of our History and Knowledge, we are asking for your assistance. Your knowledge will help us better understand our interactions within our Nuxalk Marine and River environments, both currently and historically, being lawful stewards of the land. The information you share holds the key to true Nuxalk autonomy. Furthermore, the information collected in this study will better enable us to collectively assert the management of our lands and tell the rest of Canada and British Columbia what is required to properly manage and sustain our Nuxalk Culture and Natural Resources for our future generations.

We assure you that all the information you wish to share within this study will be used by the Nuxalk Marine Use Planning technical staff for: A) enhanced management objectives; and, B) as part of University of British Columbia Student, Lenore Burke's Thesis, information released upon review and approval of the Nuxalk Marine Use Planning Board. Any further dissemination, distribution of this information will require prior written consent of interview participants. All individual information, especially your personal information will be kept in the strictest of confidentiality, unless otherwise authorized by yourself. Information provided by you and other knowledge holders may be combined in the future to represent the collective knowledge of our Nuxalk Nation.

Some of the questions may be personal in nature. Examples of such questions may include: a) Your relationship with your family and the environment, b) Nuxalk values and stories, which speak of Nuxalk use and connections with the land. The information collected for this study is invaluable and each question was selected with special attention to its importance to marine use planning, and better understanding our current Nuxalk fishery conditions. We respect that you may not wish to answer all the questions we present. Please feel comfortable in answering only those questions you consider appropriate.

Your participation is greatly appreciated and we will respect your time, working with you to create and interview timeline that agrees with your availability.

In signing this letter of consent we mutually agree that all aspects of the interviewees' privacy and concerns are to be respected and adhered to. No information gathered from this interview will be released beyond the Nuxalk First Nation without the written consent of the interviewee (you).

I, _____, agree to the terms and conditions of this
(Please Print Name)
interview as provided in this letter of consent. In return for my participation I will receive respect for my privacy. Upon request for this information to be released beyond the scope of our Nuxalk Marine Use Plan 2008, and outside the purpose of Lenore Burke's UBC Thesis, I will be required to send a written and signed letter, authorizing such a release of information. The Nuxalk Marine Use Interview Coordinator will also be signing this letter of consent.

Nuxalk Fisheries Interview Coordinator, _____, UBC
(Please Print Name)
Student,_____, mutually agree to respect the time and
(Please Print Name)
privacy of the interviewee and the confidentiality of the information provided by the interviewee.

Signed on the _____day of_____, and the year of _____.

Interviewee (Signature) _____

UBC Student (Signature) _____

Nuxalk Marine Use Interview Coordinator (Signature) _____

Appendix F: Snuneymuxw First Nation Food Fish Distribution Policy

Snuneymuxw First Nation

Policy for the distribution of Food Fish:

Sockeye Salmon

2009

DISCLAIMER:

This policy has been developed to provide a guideline for the dispersal of sockeye food fish allotments for resident and non-resident members. This policy is subject to change at any time by the Snuneymuxw Chief and Council as well as the Fisheries Coordinator and Fisheries Guardian. Sockeye deliveries are catch-dependant and as such may vary in provision date. The Snuneymuxw Chief and Council, the Fisheries Coordinator, and the Fisheries Guardian are not responsible for the dates and or times of delivery of said fish prior to its arrival on reserve land. Delivery and distribution times will be provided when possible, and notifications will be issued in the event of delivery failures.

Quantity of Sockeye:

Sockeye allotment by piece is determined upon notification by the harvester of the quantity of fish caught. The amount of sockeye caught by the harvester may vary. The Snuneymuxw Chief and Council, the Fisheries Coordinator, and the Fisheries Guardian are not responsible for the quantity of fish brought in by the harvester at any given date.

The FSC Sockeye allotment is distributed by **household**, not on an individual or person-by-person basis. Members must be 18 years of age and living separately to qualify for household allotment.

Section 1. ***Resident members.***

Resident members are members confirmed to live on Nanaimo Indian Reserves 1, 2, 3, or 4.

Sockeye for resident band members will be delivered to individual homes by pre-determined band personnel.

Resident band members who are not available for delivery must pick up their allotment. Band members are not permitted to sign for fish other than their own unless authorized by the Fisheries Coordinator or Fisheries Guardian by July 31st. This is required due to past occurrences of fraudulent pick-ups.

Proof of residency in the form of a hydro bill or other registered mail bearing name and address is required by all members **at the time of pick-up**, in addition to photo ID (BC ID card, driver's license, or status card). This is to ensure that no members living in the same household can claim individual allotments.

Members living in distinct suites with separate kitchen facilities within a house will be granted a household allotment separate from the other suite or suites, upon *prior authorization* by the Fisheries Coordinator or Fisheries Guardian. Please contact the Fisheries Coordinator or Fisheries Guardian prior to July 31st to confirm your suite as a separate household.

Members living in distinct suites with separate kitchen facilities within a house will be granted a household allotment separate from the other suite or suites, upon *prior authorization* by the Fisheries Coordinator or Fisheries Guardian. Please contact the Fisheries Coordinator or Fisheries Guardian prior to July 31st to confirm your suite as a separate household.

Section 2. ***Non resident members.***

Non resident members are Snuneymuxw band members who do not live on Nanaimo Indian Reserves 1, 2, 3, or 4. Non resident members must contact Fisheries staff prior to pick up to inform them of their desire to pick up a food fish allotment.

Band members are not permitted to sign for fish other than their own unless authorized by the Fisheries Coordinator or Fisheries Guardian by July 31st. This is required due to past occurrences of fraudulent pick-ups.

Proof of residency in the form of a hydro bill or other registered mail bearing name and address is required by all members **at the time of pick-up**, in addition to photo ID (BC ID card, driver's license, or status card). This is to ensure that no members living in the same household can claim individual allotments.

Members living in distinct suites with separate kitchen facilities within a house will be granted a household allotment separate from the other suite or suites, upon *prior authorization* by the Fisheries Coordinator or Fisheries Guardian. Please contact the Fisheries Coordinator or Fisheries Guardian prior to July 31st to confirm your suite as a separate household.

Section 3. ***Authorizing another member to pick up your Sockeye:***

Face-to-face confirmation is requested before July 31st for all members who are planning to have someone else pick up their fish. Photo ID (BC ID card, driver's license, or status card) and proof of residency in the form of a hydro bill or other registered mail bearing name and address is required at time of meeting with the Fisheries Coordinator or Fisheries Guardian.

Members who live a significant distance away and are not able to meet face-to-face must contact the Fisheries Coordinator or Fisheries Guardian to arrange for alternate means of identification. This is to ensure that no one may claim an allotment that is not rightly theirs.

Letters, faxes and phone calls will be accepted as proof of authorization ***only for the elderly and disabled***. For the purpose of this policy, an elderly person is an individual 65 years in age or older, and a disabled person is an individual markedly unable to function as a consequence of physical or mental illness.

Section 4. ***Picking up your allotment.***

(a) **Number of allotments to be picked up by any member:**

Members may not pick up any more than **two** household allotments other than their own. This is now required because in previous years, members waiting in line have taken fish for many people at one time, leaving not enough for others waiting in line. This has caused conflict which we would like to avoid by ensuring a more even dispersal.

(b) **Location and priority of pick up:**

Sockeye allotments are to be distributed from the Long House parking lot as in previous years. Members will take a number upon arrival and be given their fish when their number is called, following proof of identification. Photo ID (BC ID card, driver's license, or status card) may be requested at this time. Proof of residency is required in the form of a hydro bill or other registered mail bearing name and address.

All ***elderly and disabled*** members will be given fish first regardless of number. For the purpose of this policy, an elderly person is an individual 65 years in age or older, and a disabled person is an individual markedly unable to function as a consequence of physical or mental illness.

Band members may wait in the parking lot or kitchen until their number is called.

(c) **Members who must pick up their Sockeye at a later date:**

Members who request late pick up will be given fish **only as it is available after it has been distributed to members on the original delivery date**. If there is no fish remaining for late pick up, the member may have to wait for the next delivery to receive their allotment.

Arrangements for the late pick up of fish must be made prior to October 31st of delivery year. The Fisheries Coordinator or Fisheries Guardian must be contacted at least one to two weeks prior to pick-up date to confirm. Allotments for members who *fail to pick up* or do not make arrangements will be reserved for the Nation's ceremonial purposes.

Members who make arrangements for pick-up prior to October 15th will not be charged for storage and freezing. Members who fail to make arrangements by October 15th will be charged a glazing and storage fee based on the weight of the fish and the duration of storage.

*To confirm interest in receiving a food fish allotment, or to arrange a meeting for the purpose of authorizing another member to pick up your fish, please call the Fisheries Stewards Juan Moreno, or Joe Seward at (*250)740-2300. All correspondence can be sent to:

Snuneymuxw First Nation

668 Centre Street
Nanaimo, BC V9R 4Z4
Phone: 250.740.2300
Fax: 250.753.3492