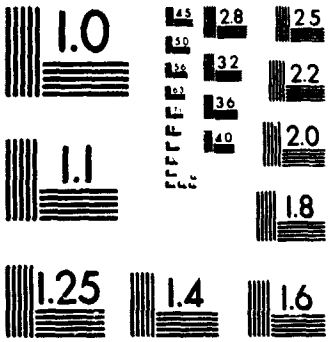


NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

NL 339 (r. 88/04) c

Canada

CO-MANAGEMENT UNDER THE INUVIALUIT FINAL AGREEMENT: BRIDGING THE GAP BETWEEN INDIGENOUS SELF-REGULATION AND STATE-BASED RESOURCE MANAGEMENT IN THE WESTERN ARCTIC?

by

Stephen Nicholas Winn, B.Sc.

A thesis submitted to

The Faculty of Graduate Studies and Research

in Partial fulfillment of

the requirements for the degree of

Master of Arts

Department of Geography

Carleton University

Ottawa, Ontario

January 4, 1991

ISBN 0-315-68850-5

The undersigned recommend to the Faculty of Graduate Studies and Research acceptance of the thesis

"CO-MANAGEMENT UNDER THE INUVIALUIT FINAL AGREEMENT: BRIDGING THE GAP BETWEEN INDIGENOUS SELF-REGULATION AND STATE-BASED RESOURCE MANAGEMENT IN THE WESTERN ARCTIC?"

submitted by Stephen Winn, B.Sc.

in partial fulfillment of the requirements for the degree of Master of Arts.

Ian Willms, Supervisor of Graduate Studies
THESIS CO-SUPERVISOR

for D.H. Anderson and Suzanne Mackenzie
THESIS CO-SUPERVISOR

CHAIR, DEPARTMENT OF GEOGRAPHY

Carleton University

ABSTRACT

Renewable resources management in the Canadian North is characterized by duality. Indigenous self-regulatory institutions and scientific, state-based resource management exist side-by-side, although not without conflict. This thesis asserts that neither system alone can effectively manage Northern ecosystems for sustainability. Co-management, an administrative concept that provides native people with a role in renewable resource management decision-making, is defined. The potential for co-management to bridge the gap between the two systems is framed in a model and subsequently examined with reference to the wildlife and fisheries co-management bodies implemented under the Inuvialuit Final Agreement (a comprehensive land claim settlement signed in 1984) in the Western Arctic region of the NWT. While research results demonstrate that there has been some amelioration of the historical exclusion of Inuvialuit harvesters from decision-making, it is concluded that the regime has not facilitated a full integration of the state-based system and Inuvialuit knowledge of the environment and traditional conservation practices. Barriers to integration such as the bureaucratic structure of the regime and resistance by the government membership to respect and legitimize Inuvialuit self-regulatory practices, are discussed.

ACKNOWLEDGEMENTS

I would like to thank all the people in Inuvik and Tuktoyaktuk who took time out from very busy schedules to talk to a "researcher from the south." I am particularly grateful to the Inuvialuit individuals who shared their insights with me and who taught me that co-management in the Western Arctic is much more than a collection of acronyms.

I would also like to express my gratitude to the Northern Science Training Grant Program for providing research funding. Thanks is also due to the Inuvik office of the Science Institute of the NWT for providing accommodation (an entire house to myself!), study space, a ride to the airport, and access to other resources. Without their assistance fieldwork would not have been possible.

The patience of my two thesis co-advisors - Professor Susanne MacKenzie and Professor Duncan Anderson - deserves considerable recognition. Their willingness to help me and provide guidance, after not hearing from me for months at a time, was greatly appreciated. Professor MacKenzie, I thank you for encouraging me to "come out from hiding" in this thesis. I hope you can see me in it!

Thanks also to the friends who have brought a great deal of light into my life during my stay in Ottawa - Bear, Dale, Heather, Jody, Keith, Lina, Marion, Mona, Nancy, Sonia, Steve, Vanessa.

TABLE OF CONTENTS

BIBLIOGRAPHY

LIST OF FIGURES

LIST OF TABLES

ACRONYMS USED IN THIS STUDY

AEWC - Alaska Eskimo Whaling Commission

CMB - Caribou Management Board

DFO - Department of Fisheries and Oceans

DIAND - Department of Indian Affairs and Northern Development

DRR - Department of Renewable Resources

EIRB - Environmental Impact Review Board

EISC - Environmental Impact Screening Committee

EISRP - Environmental Impact Screening and Review Process

FJMC - Fisheries Joint Management Committee

GNWT - Government of the Northwest Territories

HTC - Hunting and Trapping Committee

IFA - Inuvialuit Final Agreement

IGC - Inuvialuit Game Council

ILA - Inuvialuit Land Administration

IRC - Inuvialuit Regional Corporation

ISR - Inuvialuit Settlement Region

IWC - International Whaling Commission

JBNQA - James Bay and Northern Quebec Agreement

JS - Joint Secretariat

NWT - Northwest Territories

TFN - Tungavik Federation of Nunavut

WMAC (NWT) - Wildlife Management Advisory Council (Northwest Territories)

CHAPTER 1

INTRODUCTION

> This is our land and we have lived here all our lives. We don't want to forget the way the Inuit lived here for centuries and we want to continue for centuries to come. (Unidentified Inuit person in Pearce, 1976:235)

> I also want to make a statement here that may raise concern in some sectors--I really believe that the only way we are going to preserve the habitat, the environment, and wildlife in our part of the country is to put it in the hands of native people--they have the greatest vested interest in keeping the environment clean and in maintaining wildlife populations. We will probably look back 50 years from now and realize how fortunate we were to decide to go into co-operative management. (Bourque, 1987:138)

1.1 The Evolving Role of Native People in Renewable Resource Management in the Canadian North

The framework for renewable resource management in the Canadian North is undergoing rapid change as a result of comprehensive land claim settlements, transfer of authority from the federal government to the territorial governments, and a gradual process of decentralization of management responsibilities and decision-making to regional and local government managers and community wildlife and fisheries harvesting organizations. Much of this change is occurring in the context of the assertions of Northern native peoples of their right to participate in decisions about the allocation of land and the use of natural resources, particularly in those regions they have traditionally inhabited and continue to depend upon for subsistence purposes (Ernerk, 1987; [illegible], 1988:81). Prior to 1970, there was

little or no federal government effort to address concerns for the protection of renewable resource-based economies and lifestyles (Usher, 1979:36-37). Native efforts to affect the outcome of resource development issues focused almost solely on political lobbying, appeals to the judiciary, and attempts to acquire public support - strategies fraught with uncertainties.

In the last two decades,

> Indigenous people of the Arctic seeking to overcome internal colonialism have formed powerful, increasingly effective organizations to pursue their aims and voice their views. Three issues dominate their agenda: (1) cultural survival, (2) protection and retention of the land, and (3) self-government. (Osherenko and Young, 1989:73)

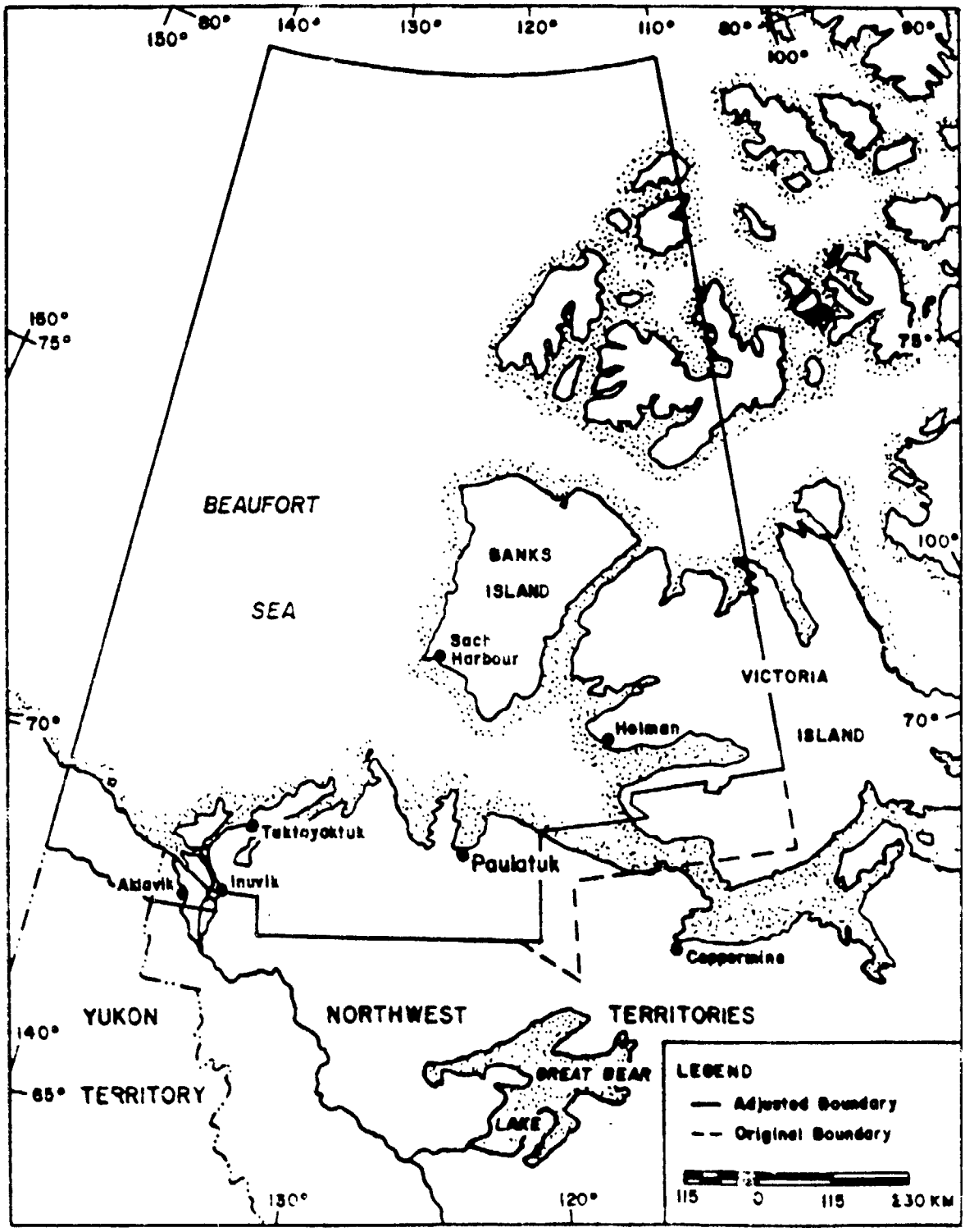
While these three issues are interrelated, this thesis will address the second, a necessary precondition for the fulfilment of the other two. It is my belief that the greatest progress towards conservation of wildlife and fisheries and their habitat is now occurring in the North with the implementation of an institutional innovation, referred to as co-management, that accords native harvesters a strong role in renewable resource management. In addition, the research for this thesis was framed by my belief in, and commitment to, addressing the historical exclusion of native people from the management of wildlife and fisheries. As a contributing factor in the marginalization of a people intimately connected with the land, this historical exclusion can not be ignored in a study of co-management.

Inuit, Indian, and Metis organizations throughout the Canadian North have pursued comprehensive land claim settlements as one means of securing access to land and resources and ensuring the establishment of administrative structures - co-management regimes comprising both traditional users and government representatives - that formalize their involvement in resource/environmental institutions (Council for Yukon Indians, 1984; The Dene Nation, 1984:307-308; Usher, 1986A:75; Ernerk, 1987:135; Canadian Arctic Resources Committee, 1988B:45; Riewe and Gamble, 1988:35). Each of the three comprehensive claims agreements completed to date, the James Bay and Northern Quebec Agreement (1975), the Northeastern Quebec Agreement (1978), and the Inuvialuit Final Agreement (IFA) or Western Arctic Claim (1984), include extensive sections detailing measures to involve native people in renewable resource management (Task Force to Review Comprehensive Claims Policy, 1986:10). The co-management provisions of the third and most recent settlement, often overshadowed by the financial compensatory arrangements, are the foci of this thesis.

1.2 The Co-Management Provisions of the Inuvialuit Final Agreement (IFA)

The area covered by the Agreement, the Inuvialuit Settlement Region (refer to Figure 1.1), generally coincides with those lands traditionally occupied and used by the

FIGURE 1.1: The Inuvialuit Settlement Region, NWT and Yukon



Source: The Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1990:5

Inuvialuit. Similar to the two earlier settlements referred to above, the IFA, enacted as federal legislation in 1984, set out requirements for the creation and operation of several fisheries and wildlife co-management bodies. In addition, the settlement also provides the Inuvialuit[1] (the Inuit of the Western Arctic) with an opportunity to adjudicate the potential environmental costs of proposed renewable and non-renewable resource development projects, such as petroleum exploration and pipeline construction, through their role in two environmental impact assessment structures. The Inuvialuit Renewable Resources Committees (the formal title of the regime) are currently the most comprehensive and entrenched examples of co-management in Canada, and perhaps amongst "First World" countries, although other native groups in the Canadian North are currently negotiating, or have already negotiated, similar regimes.

Four of the five bodies making up the IFA co-management regime have been functioning for at least four years, during which time they have established operating guidelines, submitted recommendations to territorial and federal decision-makers, and dealt with many of the requisites of their respective mandates. Thus, two characteristics - comprehensiveness and temporality - suggest that the IFA co-management regime offers a timely case study of native

---

[1] "Inuvialuit" is used here, as in the IFA, to refer to the Inuvialuit people collectively and the organizations that represent them.

participation in resource management. Front-page coverage in a national newspaper in September, 1989 of a decision made by the IFA co-management Environmental Impact Screening Committee regarding petroleum extraction in the Beaufort Sea, confirms the significance and relevance of such research (see Donville, 1989:A1 and A2).

The Inuvialuit assertion that conservation efforts in the Western Arctic could not be successful unless their people achieved a direct role in decision-making is reflected throughout the IFA, and particularly in the statement of principles for Section 14 (Wildlife Harvesting and Management). Because the co-management regime must overcome a legacy of exclusion that is still an inherent part of the resource management framework, it is uncertain, however, to what degree the settlement has in fact resulted in increased and genuine Inuvialuit participation in decision- and policy-making. This question provides one of two central points for discussion and analysis in this thesis.

Despite arguments to the contrary (for instance, Sieber, 1978:203), I assert here that two systems of renewable resource management are present in the Canadian Near and Far North. In the past decade, the development of a large and growing body of literature has supported this contention (Berkes, 1982; Feit, 1984; Usher, 1986; Andrews, 1988; and Osherenko, 1988). Of the two systems, scientific, state-based institutions predominate. Through their constitutional and

legal authority, they generate and enforce policy and legislation and provide administration at the local, territorial/provincial, and federal levels.

Less formal, but no less valid or vital, is indigenous self-regulation, native systems of renewable resource management that are maintained throughout the North despite having been suppressed by the state system. In the context of this case study, self-regulation refers to Inuvialuit knowledge and experience of wildlife (including fish and marine mammals) which is rooted in culture and traditions, and in turn exemplified by the ways in which hunting, fishing, and trapping activities ensure conservation and avoidance of waste.[2] Interestingly, other disciplines and professions have begun to recognize the need to incorporate native knowledge, culture, and expertise.[3]

While the IFA does not explicitly identify the native form of self-regulation that many believe Inuvialuit hunters, trappers, and fishers continue to practice, it does recognize the existence and value of traditional knowledge and experience and affirms the need for this to be combined with

---

[2] Chapter 3 will provide further definition and clarification of these two forms of management and co-managment. I recognize that the indigenous system discussed here is described in a non-native language and mode of expression. Differences in cultural values, with respect to the indigenous and Western forms of resource managment, are considerable.

[3] For example, Reilly's (1989) discussion of landscape architecture in the Canadian North.

the state-based management system (Section 14(5) of the IFA). In fact, both native groups and numerous academics argue that management of wildlife and fisheries for sustainability can only be accomplished through a hybrid of the two sytems (Caulfield, 1988:61) (refer to Chapter 3 for an expansion of this argument). This definition of co-management - one that extends beyond committees with advisory capacity, limited decision-making power, and minimal cooperation and communication between government officials and native harvesters - is used as a model to analyze and evaluate the efficacy of the IFA regime.

Given the complexity of the co-management regime arising from the IFA, its responsibilities, and the institutional framework of which it is now a part, I decided during preliminary research to restrict the scope of examination. The roles of each of the IFA co-management bodies are reviewed because they are integral to the entire regime. However, my research centred on the Wildlife Management Advisory Council (WMAC (NWT)) and the Fisheries Joint Management Committee (FJMC), the two most active structures to emerge from the resource management provisions of the settlement. Because the two differ considerably with respect to budgeting, assigned tasks, government representation, frequency of interaction and consultation with communities, and potential influence on territorial and federal decision-makers, they operate in slightly different contexts. Furthermore, they provide good

case studies for an examination of viable alternatives to "management by outside regulation" (Berkes, 1981A:167).

It is hoped that the results of this thesis may have significance and relevance for other aboriginal land claim settlements which are currently being negotiated or are nearing promulgation. For example, the Council for Yukon Indians' and the Tungavik Federation of Nunavut's agreement-in-principles with the federal government, covering vast areas of the Canadian North, outline substantial stipulations for native involvement in wildlife management (refer to Indian and Northern Affairs, 1988).

1.3 Primary Research Questions

The primary goal of the thesis is twofold. First, it is intended to determine whether the provisions of the IFA for implementation and operation of a co-management regime have led to direct and meaningful Inuvialuit participation in the design and conduct of research projects, calculation and allocation of harvesting quotas, formulation and enforcement of regulations, and bilateral and intergovernmental discussion on environmental issues, among other key aspects of wildlife and fisheries management. Clearly, the settlement, thus far, has achieved some

> ... amelioration for the Inuvialuit of the alienation and powerlessness which has characterized much of the discourse involving northern communities with regional and federal authorities as well as with industrial interests. (Keith and Neufeld, 1988:93)

However, to what extent the WMAC (NWT) and the FJMC will meet the principles of the IFA and Inuvialuit aspirations for a more equal and tangible role is an important question to be answered.

In this thesis I present a model of co-management where traditional knowledge and conservation practices play an equal role alongside state-based management efforts. Therefore, the second goal of this study is to gauge the degree to which the FJMC and the WMAC (NWT) have integrated state-based resource management with Inuvialuit self-regulation. Despite "a growing awareness of the contribution Native traditional knowledge and management of renewable resources can make to the development of state-based resource management systems ... in the North" (Andrews, 1988:105), very few authors have addressed the question of how such cooperative and integrative processes should work.

1.4 Objectives

The following objectives were established in order to answer the primary research questions:

1) to describe the biophysical, cultural, demographic, and economic characteristics of the Western Arctic in order to provide a context for the subsequent discussion of the co-management provisions of the IFA.

2) to define indigenous self-regulation and co-management and review differences and conflicts between

the two systems of renewable resource management in the Canadian North.

3) to develop a model of co-management that allows for the integration of the two systems.

4) to examine the successes and failures experienced by other co-management regimes.

5) to compile and develop criteria for gauging the effectiveness and efficacy of co-management regimes. The criteria should focus on three important, but related, aspects of co-management: co-management as an institutional component of the renewable resource management framework; overcoming barriers to meaningful native participation; and integrating the two systems of resource management in the North.

6) to review the general provisions of the IFA and describe in more detail the mandates and activities of the WMAC (NWT) and the FJMC and their roles within the institutional framework for resource management in the Western Arctic.

7) to analyze the functioning of the FJMC and the WMAC (NWT) according to the criteria referred to above.

1.5 Research Framework

Given the recent development of co-management and its practical implementation, the absence of detailed research on the topic, and the cross-cultural nature of such inquiry, I

formulated a research framework that would utilize data derived from both field interviews and archival research of several sources. This section outlines assumptions, questionnaire preparation, the interviewing process, and other sources of information used, and concludes with a discussion about the strengths and limitations of the methodological approach. Throughout the following discussion I refer to ethical considerations of Northern research, particularly where it involves interaction with, and the study of the experience of, native people (for an introduction to this issue, refer to Association of Canadian Universities for Northern Studies, 1988).

1.5.1 Assumptions

Research for this thesis was conducted on the basis of two key assumptions. The purpose of this research was not to document the existence of indigenous self-regulation. It was assumed, on the basis of evidence presented in Chapter 3, that Inuvialuit harvesters continue to practice traditional self-regulatory activities. My concerns about the cultural bias and subtle racism of the assumed "need" to document cultural attributes, asserted by native people to exist, are addressed in the concluding chapter.

All Inuvialuit individuals I interviewed were members of the co-management bodies and/or the community Hunting and Trapping Committees (HTCs) and the Inuvialuit Game Council

(IGC). Fieldwork constraints precluded an opportunity to visit each of the Western Arctic communities to interview harvesters who did not actively participate in any of these bodies. Thus, the second key assumption of this thesis concerns the representativeness of the Inuvialuit participants in the co-management bodies and the harvesting organizations. It can not be stated conclusively that the Inuvialuit members reflect the views and interests of all, or even a small segment of, the Inuvialuit population (Interview with P. Usher, April 23, 1989). However, Inuvialuit representation is drawn from the IGC which in turn is comprised of individuals elected by the community HTCs. Inuvialuit representatives are typically involved in hunting and trapping on an ongoing basis and bring to the various structures first-hand knowledge and experience, and an awareness of their community's concerns. I assumed, therefore, that Inuvialuit individuals on the co-management bodies and the harvesting organizations adequately represent many of the interests of the communities.

1.5.2 Interview Process

The questionnaire (refer to Appendix A) was constructed with the intent that it would provide a basis for answers to the primary research questions. Therefore, a large section of the questionnaire was designed to gauge whether the IFA co-management regime has led to increased and meaningful

Inuvialuit participation in the management of renewable resources in the Western Arctic, and to what degree the co-management regime was incorporating Inuvialuit self-regulatory practices. In addition, questions were tailored to provide an information base to which the criteria for evaluation of co-management regimes (refer to Chapter 5) could be applied. Another important goal was to develop a context for analysis through the gathering of information about specific issues and concerns the WMAC (NWT) and the FJMC have dealt with, or are currently addressing.

The questionnaire was designed with the awareness that it would be used to acquire largely qualitative data - in other words, individuals' opinions, beliefs, feelings, and experience about the co-management regime. This is not to say that quantitative data should not have a role in research of this nature; this type of information was collected during fieldwork and is discussed in Section 1.4.3 below.

I was informed by the Joint Secretariat (the organization that provides technical and administrative support to the IFA co-management bodies) that I would not require translators for interviews with Inuvialuit people. When designing the questionnaire, however, I was conscious of the fact that for some Inuvialuit participants in the co-management bodies, English is a second language. I therefore made efforts to use non-technical, non-jargonistic language throughout. Due to a number of factors, which included distance, costs, and

difficulties in contacting people, the questionnaire could not be pre-tested. For this reason, and with an awareness of the broad range of interests and constituencies represented by the participants in the co-management bodies, it was important that the questionnaire be flexible and adaptable to different contexts. The questionnaire also had to account for differences in the mandates of the board, committees, and councils.

In January, 1989 I informed the Joint Secretariat and the Board of Directors of the Inuvialuit Renewable Resource Committees - the chairs of the co-management bodies including the Inuvialuit Game Council - of my research intentions, asked for their approval and support, and sought feedback about the sort of research they thought was needed with respect to the IFA co-management bodies. Additionally, I asked for, and subsequently received, formal approval from the Board of Directors of the Inuvialuit Renewable Resource Committees (the chairpersons of the co-management bodies and the IGC) as part of the requirements of the research license application under the NWT Scientists Act.[4] The terms of the license, specifying certain requirements following the conclusion of research activities, have been adhered to.

I visited Inuvik, the regional centre for the Western Arctic and many of the institutions created under the IFA,

---

[4] Under this legislation, I was granted Scientific Research License No. 9055.

and Tuktoyaktuk in the Northwest Territories during May 3-24, 1989 (the two locations that funding would permit me to visit). Interviews were conducted with some of the members and chairpersons of the FJMC, the WMAC (NWT), the Environmental Screening Committee, the Environmental Impact Review Board, the IGC, several of the HTCs, and staff people with the Joint Secretariat, the territorial Department of Renewable Resources, the federal Department of Fisheries and Oceans, and the Mackenzie Delta Beaufort Sea Regional Land Use Planning Commission. In addition, interviews with individuals knowledgable about co-management and/or the IFA regime were conducted in person or by telephone, following my trip to the North.

Interviews were recorded through two means: If the individual felt comfortable with being recorded on a cassette machine, the interview was taped. If the individual requested that the interview not be taped, I took notes. A total of 24 interviews were conducted during the course of research. During the interview each person was asked how they felt about being referenced and quoted. As a result, the interviews are broken down into three categories: those who requested that their names not be listed in the bibliography and that they not be quoted in the text; those who agreed to be listed in the bibliography but who also requested that they not be quoted; and those who said I could quote anything they said and directly attribute it to them. The interviews were

conducted in bars, coffee shops, hotel rooms, offices, and homes. The location depended upon the wishes of each interviewee. Interviews are listed in the bibliography (excluding those individuals who requested that they not be referenced anywhere in the thesis).

After several initial interviews, rigid application of the questionnaires was discontinued as an inappropriate way of obtaining information. I found that strictly following the questionnaire established too formal an environment. Subsequently, the questionnaire was simply used as a framework for a more informal discourse and sharing of information in a conversational setting. Thus, the interviewing process used in this research falls somewhere between the broad categorization of "formal and informal" interviewing described by Eyles (1988:7). The questionnaire as framework for a conversation provided some structure and ensured that individuals' responses could be compared with one another. In addition, the informal interviewing approach turned out to be beneficial, for as Burgess has noted, it

> allows the researcher 'to probe deeply, to uncover new clues, to open up new dimensions of a problem and to secure vivid, accurate, inclusive accounts from informants based on personal experience' (Burgess, 1982:101). (quoted in Eyle, 1988:8)

During the interviews, individuals were asked to review any questions they had concerns about and suggest any other areas that they thought I should be examining. Issues related to the cross-cultural research approach adopted in this thesis

are discussed in Section 1.5.4.

1.5.3 Other Sources of Information

Information about the functioning of the WMAC (NWT) and the FJMC, as well as the other co-management bodies and the Inuvialuit organizations, has also been drawn from a number of other sources. These included: a) the IFA, which describes the legislated mandates and responsibilities of all the bodies; b) the documents produced by the Joint Secretariat and the co-management board, committees, and councils, such as meeting minutes (I received permission to review these with some restrictions), policy papers, operating guidelines and procedures, and annual reports; and c) the few articles, such as Doubleday (1989), that have been written about the IFA co-management regime to-date. Several interviewees emphasized that the documents referred to above often do not reflect how the bodies operate, how interaction in meetings takes place, and the range of functions actually assumed. Thus, these sources provided an important information base in this thesis and contexts for the study of the primary research questions, but did not play a key role in the analysis of these research questions.

1.5.4 Conclusions About the Research Framework

The importance of qualitative methods is emphasized or alluded to throughout the foregoing discussion of the research

framework. It is my belief that peoples' knowledge of their experience is as valid as quantitative data, and is more appropriate and often more useful in describing, or in attempting to describe, the reality of this experience than statistical techniques. Moreover, the questions posed in this thesis necessitated a research approach that reflected the less tangible elements that I consider to be essential in a study of co-management: the role of indigenous knowledge and conservation practices, and linguistic and cultural barriers to native-non-native interaction. These issues in particular can not be studied through quantitative methods. Accordingly, the analytical orientation in this thesis is primarily qualitative.

The implications of the cross-cultural nature of the research and interviewing must also be considered.

> The gender, class, race, and educational status of the researcher as well as her/his institutional affiliation, may all set up patterns of power and subordination which are part of the general society. (Driscoll and McFarland, 1989:186)

That I, a non-native person, was interviewing native people as part of the research for this thesis, clearly influences all steps of the research process. Although conscious of this, I also recognize that it is impossible for a non-native person to fully understand native experience, nor should they attempt to do so. An awareness of this limitation should underlie any interpretation of the results of this thesis by the reader.

One problem experienced during fieldwork that must be recognized here is an imbalance with respect to the number of government representatives and non-native Joint Secretariat staff I interviewed. In the course of my fieldwork, I did not have the opportunity to interview as many Inuvialuit representatives as I had hoped. As I discovered, the insensitivity of some academics and government scientists who have conducted research in the North has implications for current research efforts. I encountered reluctance among some Inuvialuit people to be interviewed, perhaps because of their past experience with researchers or stories they had heard about southern academics in the Western Arctic.[5] One staff person with the Joint Secretariat observed that Inuvialuit hunters are only starting to talk openly with her on sensitive wildlife management issues after two years of repeated visits to the communities for meetings with the HTC's and community members (Interview with L. Treseder, May 11, 1989). The concluding chapter of the thesis discusses further issues and recommendations with respect to the study of co-management

[5] Compounding this problem is the history of the Western Arctic. Following more than a century of genocide and oppression, the Inuvialuit are, not surprisingly, somewhat distrustful of non-native people. Native people throughout Canada, including the NWT where they comprise the majority of the population, remain a marginalized people. While the Inuvialuit have experienced considerable empowerment as a result of the settlement of their land claim and the establishment of the co-management regime and socio-economic organizations, I still encountered much evidence during my brief visit to the Western Arctic of racism and discrimination on the basis of class and education.

regimes by non-native academics.

1.6 Organization of the Thesis

This chapter has introduced the primary research questions, objectives, and methodological framework for the case study examined in this thesis - the co-management regime implemented under the IFA. Chapter 2 describes the environmental, cultural, demographic, and economic characteristics of the Western Arctic. Chapter 3 emphasizes the theme of duality in renewable resource management in the Canadian North and looks at state-based, scientific resource management and indigenous self-regulation in detail. Chapter 4 defines co-management, advocates a model of co-management that integrates the two systems of resource management, and reviews the experience of the older and newly-emerging co-management regimes in the Canadian North. Chapter 5 lists criteria compiled and developed during the course of research for the evaluation of co-management regimes. Chapter 6 briefly outlines all the provisions of the IFA and subsequently focuses on the co-management arrangements implemented under the settlement. The first set of criteria referred to in Section 1.4 are considered with special reference to the FJMC and WMAC (NWT). Chapter 7 applies the criteria regarding barriers to native participation and the integration of the state-based and Inuvialuit systems of resource management to the WMAC (NWT) and the FJMC. Chapter

8 is a discussion of the conclusions of the case study. This chapter also recommends needed changes to the IFA co-management regime and considers future research efforts on co-management. All acronyms used in this thesis are listed following the table of contents.

CHAPTER 2

THE WESTERN ARCTIC

2.1 Introduction

The purpose of this chapter is to introduce the reader to the faunal, cultural, and socio-economic characteristics of the Western Arctic. As a southern researcher preparing to conduct fieldwork in the North, I felt it was my responsibility to learn as much as possible about the Western Arctic. The relationship that the Inuvialuit share with the land is an integral element of their worldview and informs all their concerns, interests, and aspirations in the Western Arctic. In other words, local knowledge and traditional conservation practices are rooted in ties to the land and a broad range of wildlife and fish species that provide major sources of food and income. Any consideration of that knowledge and experience and its role in co-management requires at least a minimal understanding of those ties. Therefore, an overview of the variables above provides a necessary context for Chapters 3 and 4 - a discussion of the state-based renewable resource management framework in the North, systems of native self-regulation, and the evolving concept and practice of co-management.

The Western Arctic, as defined in the IFA in 1984, covers an area of 360,000 km^2 in the Beaufort Sea region (refer to

Figure 1.1) (Delury, 1986:172).[1] It includes much of the Mackenzie Delta region and extends westward from the Yukon-Alaska border of the North Slope to the middle of Victoria Island in the NWT. The northernmost and southernmost points are, respectively, the northern tip of Banks Island in the Arctic Archipelago and 68^0 latitutude. There are six Inuvialuit communities in the Western Arctic; Inuvik (the regional centre) and Aklavik are below the tree-line in the Mackenzie Delta, while Tuktoyaktuk, Paulatuk, Holman, and Sachs Harbour are located above the tree-line in tundra settings.

2.2 The Western Arctic Landscape

Prolonged sub-zero temperatures over much of the year and the absence of solar radiation during winter are major influencing factors for soil regimes, hydrology, the presence and rate of growth of vegetation, and the structure, composition, and complexity of food chains in the Western Arctic. Monthly average temperatures in Inuvik are 13.9^0C in July and -30.9^0C in January (Zoltai and Pettapiece, 1973:7); average temperatures are even colder for Holman on Victoria Island (Condon, 1983A:17). Despite the harshness of the climate, the region is home to a wide variety of flora and fauna that sustained Inuit people for thouands of years. With

---

[1] The area of land traditionally used by the Inuvialuit covers an additional 75,000 km^2 (Lands Directorate, 1984:2).

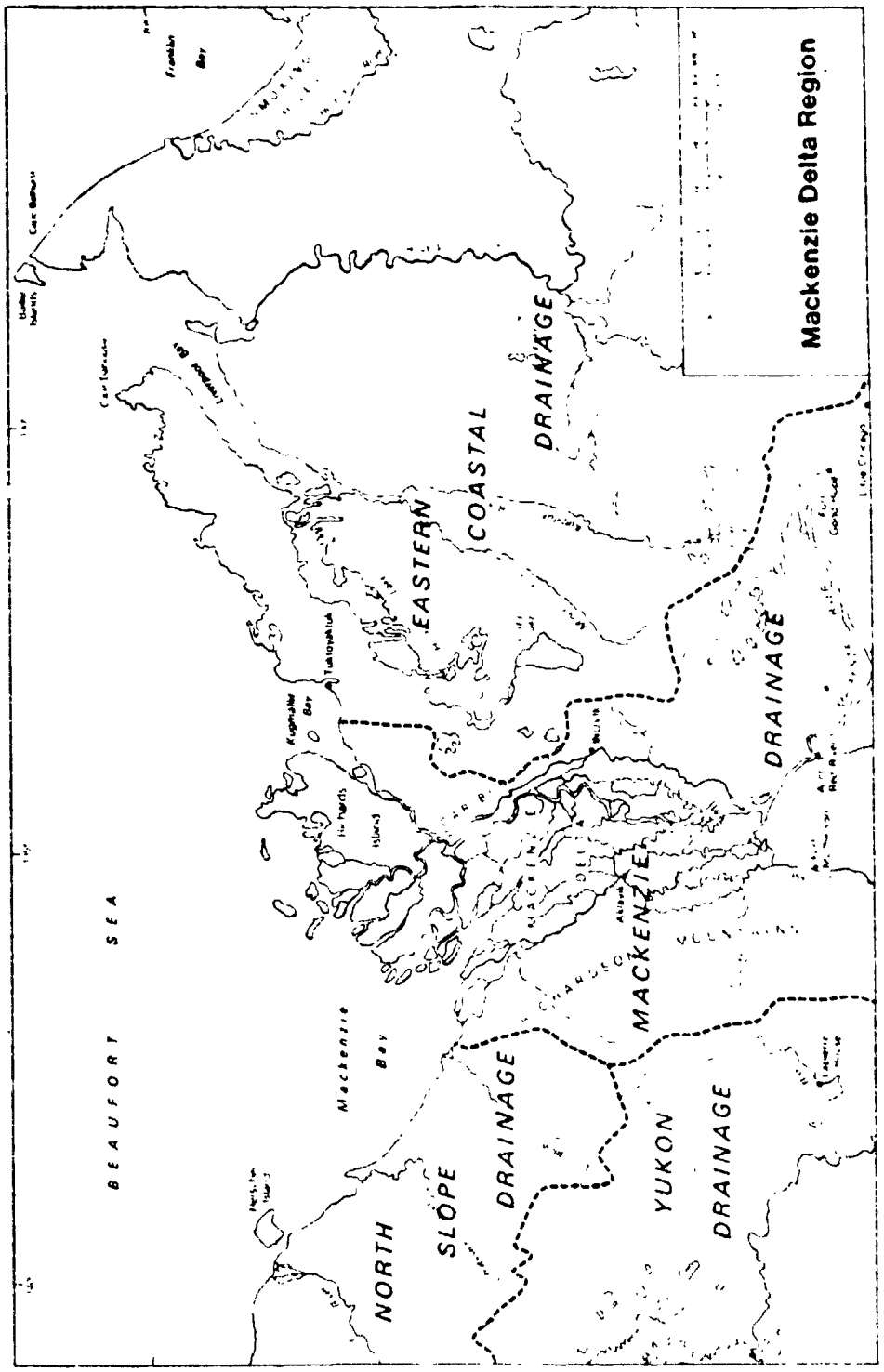
its "diversity of land forms ... and resultant mosaic of plant communities" (Martell et al, 1984:1), the Mackenzie Delta Region is a focal point for wildlife habitat in the Western Arctic. Figure 2.1 illustrates that this area encompasses much of the Inuvialuit Settlement Region, including the three most populous communities. While the grass tundra of Victoria Island and Banks Island, is not as productive as the Delta Region, it does support a number of wildlife and fish species that are the core of the subsistence and commercial harvesting economies of Sachs Harbour and Holman (Condon, 1983A; Friesen and Nelson, 1978).

2.2.1 Wildlife and Fisheries

> Our culture comes from the land. That is how we define ourselves as a people. (An Alaskan native person quoted by Berger, 1985:74.)

There are few accessible literature sources that comprehensively describe the renewable resources of the Western Arctic region. As a result, much of the information included here is drawn from a small number of sources about smaller areas within the region (particularly the Mackenzie Delta). Given the limitations of data-gathering in the North, the reader should also be aware that species population estimates are often more than a decade old and may be subject to considerable innacuracies. In addition, they may not reflect current conditions nor the population fluctuations that characterize many Arctic and Sub-Arctic species. For

FIGURE 2.1: The Mackenzie Delta Region



SOURCE: Martell et al, 1984:148

these reasons, Hartman (1981:33) notes that the scientific data base for the northern environment is poor and leaves many holes and uncertainties regarding land capability.

Andy Carpenter (1987:127), a former Chairperson of the Inuvialuit Game Council, has described the Western Arctic as a place rich in wildlife resources which "can be sustained only because of the huge area of land available for them to occupy." That is one of the paradoxes of the North. Fortunately, the long and frigid northern winters, in combination with relative geographic isolation, have restricted somewhat the immigration of non-native people and accompanying development of the fragile natural resource base. However, with renewed southern interest in oil and natural gas extraction in the Beaufort Sea and native people looking increasingly to renewable resources for security, there is a great need to improve our collective understanding of the Northern environment, and more particularly, sustainable levels of development. I use the term "collective" here because this thesis asserts that a primary reason for the current poverty of scientific knowledge about the Northern environment lies in the past, widespread ignorance or dismissal by the scientific and government communities of the wealth of traditional knowledge within native communities (Usher, 1987). Chapters 3 and 4 emphasize the value and extent of this environmental knowledge base and the need for it to be fully incorporated in co-management efforts.

Both human and natural factors affect wildlife and fisheries populations. Usher (1986A:14) notes that human disturbance of Northern ecosystems takes three forms: "destruction or degradation of habitat, pollution of the environment, or stress on organisms." Of note, is that during the period in which humans have inhabited the North, almost all significant, negative environmental changes have occurred since the arrival of non-native peoples (Usher, 1986A).

Wildlife and fisheries resources in the Western Arctic retain their traditional role as an inherently crucial element in the Inuvialuit economy and culture. In addition, as discussed in Section 2.5.1, a number of researchers have demonstrated that Inuit peoples throughout the Canadian Arctic remain dependent to varying degrees on "country food" for sources of nutrition (Friesen and Nelson, 1978:164; Schaefer and Steckle, 1980; and Usher, 1986A).

The presence of 54 species of mammals, 137 species of birds, and 55 species of fish has been confirmed in the Mackenzie Delta Region (Martell et al., 1984:17, 79, and 149). Of foremost importance in the Inuvialuit subsistence and commercial economies are a number of species at, or near, the top of the terrestrial, fresh-water, estuarine, and marine foodchains. Several of these wildlife and fish species are reviewed in more detail in order to provide a background to the discussions about Inuvialuit harvesting (Section 2.5.1), Inuvialuit self-regulation (Section ??), and the functioning

of the IFA co-management regime (Chapters 5 and 6).

Stocks of beluga and bowhead whales summer throughout the Beaufort Sea (Smith, 1986:160-163). The Western Arctic stock of the bowhead is the largest sub-population of that species (Smith, 1986:161), and its continued survival is essential to the integrity of the global population. Hunted close to extinction by European and American whalers prior to the Twentieth Century, the bowhead remains classified internationally as an endangered species (Braham, 1984). While Alaskan Inuit conduct a sustainable annual hunt of the Western Arctic stock (the 1989 quota was 41), estimated to comprise 7,800 whales, harvesting by the Inuvialuit has been prohibited by the federal Department of Fisheries and Oceans for several decades (Interview with L. Harwood, May 11, 1989; Joint Secretariat, 1989). As discussed in Chapter 7, this prohibition recently developed into a contentious issue when a detailed proposal by the Aklavik Hunting and Trapping Committee to harvest one bowhead for subsistence and cultural purposes was initially rejected by the federal Department of Fisheries and Oceans.

The Inuvialuit have continued their traditional summer harvest of belugas in the shallow estuarine waters of the Mackenzie Delta, where the whales migrate to moult (Martell et al, 1984:22; Smith, 1986:161). According to Martell et al (1984:19), the number of beluga that migrated to the Delta during the 1970's varied from 1,500-2,000 in 1972 to 7,000 in

1979.[2] Recent annual harvests by Inuvialuit hunters from Inuvik, Tuktoyaktuk, and Aklavik have been approximately 130 whales (Fisheries Joint Management Committee, 1989:10).

Both the bearded seal and the ringed seal, present year-round in the Western Arctic, are hunted by the Inuvialuit. Although harvest levels have declined in the last two decades in the Delta region as a result of anti-fur lobbying in the late 1970s and early 1980s[3], the two species are still important to the residents of the three eastern Inuvialuit communities (Martell et al, 1984:28).

Although polar and grizzly bears are hunted for meat, it is primarily their fur which is sought after for the lucrative prices harvesters receive. Both species occupy positions at the top of the foodchains, and therefore occur in very low population densities in their habitat (Martell et al, 1984:56; Stirling, 1986). Not surprisingly, there is often intense competition among Inuvialuit hunters for the limited number of polar bear and grizzly bear tags available each year.[4] Two relatively distinct populations of grizzly bear inhabit the

---

[2] The variations are due to changing ice conditions in the Beaufort Sea and their effect on migration patterns, rather than rapid population changes.

[3] The value of sealskin sales in the NWT declined from $890,278 in 1980-81 to $76,555 in 1983-84 (Bourque, 1986:41). At the same time, government social assistance payments to Inuit coastal communities increased substantially.

[4] The annual number of tags for a species represents the total allowable harvest which is allocated to communities by the territorial government, and in turn, in the Western Arctic, through bodies set up under the IFA.

mainland of the Western Arctic: one is in the Richardson Mountains; the other, the lighter-coloured barren-ground grizzly, roams the tundra of the Yukon North Slope and Mackenzie Delta (Martell et al, 1984:56).

Of the estimated 15,000 polar bears in Canada, approximately 1,200 (most recent data available is for 1974-1977) inhabit the pack and floe ice and coastal areas of the Inuvialuit Settlement Region (ISR)[5] (Martell et al, 1984:33; Sage, 1986:138). The southern portion of Banks Island within the ISR is one of the most important polar bear denning areas in the circumpolar Arctic (Sage, 1986:140; Stirling, 1986:171). In response to growing concerns about threats to the stability of the transboundary Southern Beaufort Sea polar bear population, the Inuvialuit Game Council and the Inupiat (Alaskan Inuit) signed an agreement to ensure sustainability of the shared resource in 1988 (Inuvialuit Game Council, 1988:9-10).

The Western Arctic provides habitat for five subspecies of caribou: European reindeer, Peary caribou, woodland caribou, barren-ground caribou, and Grant caribou. The latter two play a crucial role in the subsistence economies of the mainland Inuvialuit communities. The Bluenose Herd of the subspecies occupies the area east of the Mackenzie River and is estimated to comprise 50,000-80,000 animals (Sage,

---

[5] For the purposes of this thesis and the IFA, the Western Arctic and the ISR share the same boundaries and are used interchangably.

1986:144-145). It is of central importance to the community of Paulatuk (Community of Paulatuk and Wildlife Management Advisory Council, '90:20).

The most widely studied and scrutinzed of the caribou populations occurring in the ISR is the Porcupine Caribou Herd of the Grant Caribou subspecies. Its migratory range is a vast tract of land (over 250,000 km2) crossing two political boundaries, the NWT-Yukon territorial border and the Alaska-Yukon international border (Sage, 1986:148). The ongoing growth of the Porcupine herd, whose current population is estimated at approximately 180,000, is currently threatened by an American proposal to develop oil and natural gas deposits on the sensitive calving grounds of the Alaskan coastal plain (Leblond, 1979; Sheldon, 1988:95). Since the early-1980s, the Canadian federal government has indicated its opposition to the development plan, stating that any industrial activity would significantly impact native peoples, including Inuvialuit subsistence harvesters who have historically depended on the resource (Allison, 1978:223; Sheldon, 1988:99). An Inuvialuit family of four from Aklavik or Tuktoyaktuk will typically harvest 20 caribou a year (Forsyth, 1988).

Other big game species and furbearers harvested by the Inuvialuit include muskox, moose, Dall sheep, hare, arctic fox, red fox, muskrat, beaver, otter, mink, martin, lynx, wolverine, wolf, and ermine (Fabijan, 1989:7). Friesen and

Nelson (1978:165) note that "the arctic white fox is the most important arctic fur-bearer" in the Inuit economy. This is particularly true for the community of Sachs Harbour. The abundance of arctic fox on Banks Island, coupled with relatively consistent high fur prices, has meant that the residents of Sachs Harbour have experienced one of the most stable and prosperous economies in the Canadian Arctic (Usher, 1976A, 1982:49). On the mainland, Inuvialuit hunters supplement lower harvest levels of arctic fox by trapping and shooting beaver and muskrat, which are distributed in the lakes and rivers of the Mackenzie Delta above and below the tree-line (Martell et al, 1984:44-48).

The Inuvialuit harvest 27 of the 137 species of birds that have been recorded in the Mackenzie Delta Region (Martell et al, 1984; Fabijan, 1989); refer to Table 2.1 for a listing of these species. With the exception of three birds that are year-round residents - snowy owls, rock and willow ptarmigan - the harvested species are migratory waterfowl that nest mainly in or near the Mackenzie and Anderson River deltas during the spring, summer, and early autumn. Because the Region is, according to Martell et al, "one of the most productive places in the North for waterfowl," migratory bird sanctuaries were established by the federal Wildlife Service in each of the aforementioned deltas (Martell et al, 1984:82). Despite the less favourable climatic conditions of Victoria and Banks Islands, many of the bird species listed in Table 2.1 also

TABLE 2.1: Species of Birds and Fish Harvested by the Inuvialuit

BIRDS	FISH
Swans	Fresh-water and Anadromous:
Geese	
snow (wavies)	
white front (yellow legs)	char (including land-locked char)
Canada	
brant	
blue goose	Fresh-water:
Ducks	
eider	Broad white fish
scoter (black ducks)	Burbot (losh)
widgeons (whistling ducks)	Lake trout
oldsquaw	Pike (jack fish)
pintail	Grayling
mallard	Lake white fish
gadwall	(humpback)
scaup (golden eye)	(crooked back)
shoveler (spoon bill)	
golden eye (bell duck)	Anadromous:
canvas back	
Green winged teal	Cisco
merganser (pie ducks)	Conni (inconnu)
Loons	Chum Salmon
common (king loon)	
arctic	Marine:
red-throated	
snowy owls	Herring (blue herring)
sand hill cranes	Saffron cod (Tom cod)
Ptarmigan	Arctic cod (rock cod)
rock	
willow	

The names within brackets denote common Inuvialuit names.

Sources: Martell et al, 1984; Fabijan, 1989:7

also migrate further north, albeit in smaller numbers and for shorter durations. Residents of Holman hold an annual two week spring hunt in order to harvest several species of duck and geese as they migrate over the ocean ice (Condon, 1983A:24).

Of the 55 species of fish that occur in the Mackenzie Delta Region, 13 are harvested by the Inuvialuit on an ongoing basis (Table 2.1). Six of these species are exclusively fresh-water, three are exclusively marine, three are anadromous[6], and one occurs in both anadromous and fresh-water forms (Martell et al, 1984). The latter, the arctic char, supports important subsistence and commercial fisheries throughout the Western Arctic (Fisheries Joint Management Committee, 1989).

Given the general lack of comprehensive scientific information about terrestrial mammals in this part of the North, it should not be surprising that even less is known about the fishery resource of the region. Martell et al acknowledges that

> little was known of the distribution and biology of most species in the Region until studies were initiated in response to the proposed Mackenzie Valley gas pipeline and to offshore drilling in the Beaufort Sea. Accordingly, most of the available data has been collected from areas where conflict might be expected. (Martell et al, 1984:149)

Local and regional populations of all of the fish listed in

---

[6] Anadromous fish are defined as marine species that migrate into fresh-water systems to spawn.

Table 2.1 are vulnerable to overfishing due to natural factors imposed by the northern environment, such as slow growth rates, low and fluctuating reproduction rates, and limited sources of food. How communities have responded to overfishing of stocks and population declines resulting from natural factors, in cooperation with the Fisheries Joint Management Committee, is discussed in Chapters 5 and 6.

In summary, the terrestrial-estuarine-marine interface of the Western Arctic region provides habitat for an unusually diverse range of wildlife and fisheries. While industrial development, the establishment of permanent settlements, and the introduction of species has had some impacts on the environment, the region has undergone far less change since the arrival of Europeans than southern Canada. The next section discusses the Inuit peoples who have depended upon, and developed a close relationship with, the rich wildlife and fisheries resources of the Western Arctic over several thousand years. Section 2.4 discusses the continuing and critical role of harvesting in the Inuvialuit economy and culture.

2.3 The History of the Inuit in the Western Arctic

> People have been living in the Beaufort Sea region for at least 4,000 years. (Dome Petroleum et al, 1982:2.5)

As stated earlier, the IFA identifies, in part, an Inuvialuit individual as any person who "is of Inuvialuit ancestry or is considered by reason of Inuvialuit custom or

tradition to be Inuvialuit" (Indian and Northern Affairs, 1985:4). However, the contemporary Inuvialuit population of the six ISR communities are not the direct descendents of the original Inuit residents of the Mackenzie Delta region (Wonders, 1987:666-667). Their ancestors are primarily Alaskan Inuit people who immigrated to the region during the last two decades of the 1800s and the first half of this century.

The original Mackenzie Delta Inuit occupied the Western Arctic coastlands between Barter Island and Cape Bathurst (refer to Figure 2.1), and were estimated to number between 2,000 and 4,000 at the time of initial contact with Europeans (McGhee, 1976:141). While this populous people was culturally distinct, they shared a common ethnic and linguistic background with the Tareumiut and Nunamiut in the west (Baker, 1982:16), and the Copper Inuit in the east (Crowe, 1974:57-58). Five territorial groups, among whom there were some significant differences in tradition, dialect, and sources of food comprised the Mackenzie Delta Inuit population: Kigirktarugmiut, Kupugmiut, Kittegaryumiut, Nuvorugmiut, and Avvagmiut (McGhee, 1976). The presence of unusually productive ecosystems of the terrestrial-estuarine-marine interface enabled the development of relatively large population concentrations for the north and sophisticated cultural and societal attributes that were perhaps unparalleled anywhere else in the Canadian arctic (Crowe,

1974:56-58). Crowe (1974:56-57) estimates that the village of Kittigazuit, now abandoned, located east of Richards Island on the shore of Kugmallit Bay, would grow to 1,000 people during the summer whaling season in the pre-contact period.

The history of interaction between Europeans and Americans and the Mackenzie Delta Inuit exemplifies the most destructive and shameful outcome possible when industrialized cultures encroach on indigenous cultures - it is a history rarely described in detail in historical texts about the north written by non-natives. Hargrave (1971:187-188) discusses several factors that contributed to the rapid depredation and subsequent disappearance of the region's original native population. Foremost, were the tragic implications of the concentrated and closely linked villages of their settlement pattern. The American commercial whalers who wintered in the region between 1889 and 1912 introduced diseases that passed through the Inuit communities with terrible consequences (ibid, 194). Other pressures, such as the widespread introduction of alcohol and other agents of profound cultural change, compounded the impact. "Aboriginal Mackenzie Eskimo culture could probably be considered to have become extinct between 1900 and 1910" (McGhee, 1976:144). The last person of direct descent is thought to have been a Tuktoyaktuk resident who died in 1964 (Hargrave, 1971:193).

While there are still some traces of Tariumiut ancestry in the Inuvialuit, according to McGhee (1976), the majority

of the present population is descended from Alaskan Inuit people who moved into the area as part of whaling crews or who migrated in response to a dwindling wildlife resource base on the Alaskan North Slope. With the exception of bowhead whales, Alaskan Inuit settling in the Western Arctic found bountiful populations of the wildlife and fish species they had traditionally depended upon further west. Morrison (1983:77) asserts that the background of the contemporary Inuvialuit has no bearing on the land claim settlement they negotiated.

> The fact that most of the Inuvialuit are not historically indigenous to the Mackenzie Delta region is not really relevant in any case; given the nomadic character of traditional Inuit life, it is difficult to be specific about who lived exactly where in the prehistoric period.

Furthermore, it should be acknowledged that the Mackenzie Delta Inuit shared close ties with the Alaskan native culture (Crowe, 1974:56).

The Inuvialuit population of Holman is composed primarily of descendents of the Kanghiryuarmiut of Prince Albert Sound, the Kanghiryuatjagmiut of Minto Inlet, and the Puivlirmuit of Dolphin and Union Strait (Condon, 1983A:31). Little, if any, cultural differences marked these three groups of the Copper Inuit. Other residents of the village include the descendents of western Inuit people who settled in Holman during, or soon after, its establishment in 1939 (Condon, 1983A:31). The history of Paulatuk is similar: Copper Inuit in the region gradually abandoned their nomadic life-style over the course

of several decades and settled at the site of the present community in the mid-1960s (The Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1990:8-9).

The Inuvialuit share a common language - Inuktitut - with the other Inuit of the North American Arctic, Greenland, and the Soviet Union (Whittington, 1985A:56). The dialect of the Inuvialuit is Inuvialuktun (Fabijan, 1989:9), and it in turn is comprised of three local dialects, reflecting the history of the region's residents: Uummarmiut, Inuinnuqtun, and Siglit (Wildlife Management Advisory Council (N.W.T.) and Fisheries Joint Management Committee, 1988:1). Despite two slightly different ancestral backgrounds, the Inuvialuit - the Inuit peoples of the Western Arctic - have formed a cohesive cultural bond over the past century. The unity with which the Inuvialuit pursued their land claim settlement is evidence of this.

2.4 Demographic Profile of the Western Arctic

In order to understand the objectives pursued by the Inuvialuit during the negotiation of the IFA, it is important to understand the social and economic realites Inuvialuit face in the six Western Arctic communities. Confronted by unstable socio-economic conditions, the Inuvialuit rely on the renewable resource base as a stable force in their lives. Table 2.2 summarizes relevant population statistics for the Western Arctic for 1986.

TABLE 2.2: Western Arctic - Population, 1986

	Western Arctic	Inuvik	Tuktoyaktuk	Aklavik	Holman	Paulatuk	Sachs Harbour
Population, 1981	5,275	3,147	772	721	300	174	161
Population, 1986	5,735	3,389	929	763	303	193	158
Population Change, 1981-86 (%)	8.7%	7.7%	20.3%	5.8%	1.0%	10.9%	-1.9%
Original Tongue (single response)							
- Inuktitut	580	160	175	65	100	55	25
Proportion, Pop'n	10.1%	4.7%	18.8%	8.5%	33.0%	28.5%	15.8%
Ethnic Origin (single response)							
- Aboriginal*	2,865	1,060	725	530	275	170	105
Proportion, Pop'n	50 0%	31.3%	78.0%	69.5%	90.8%	88.1%	66.5%
Total No. of Census Families in Private Households	1,245	785	180	155	60	35	30
By Size of Family							
2 persons	350	270	25	35	10	5	5
3 persons	295	200	35	40	10	5	5
4 persons	280	180	40	30	20	5	5
5 or more persons	320	140	75	50	25	20	10
Proportion of the Pop'n, aged 19 years and under (%)	n.a.	35.4%	45.2%	44.4%	46.7%	50.0%	51.6%

n.a. - not available

Sources: Statistics Canada, 1987A; 1987B; 1987C

* This data does not include aboriginal people of "multiple origins."

Approximately 9% of Inuit people in Canada currently live in the Western Arctic (Robitaille and Choiniere, 1985:88-90). Whittington (1985A:86) estimates that the Inuvialuit population is 2,500 persons, or almost half of the region's 5,735 residents (Statistics Canada, 1987A:5-1). Given the high Inuvialuit birth rate and the transiency of the non-native population (Robitaille and Choiniere, 1985:16; Whittington, 198~A:56-58), it seems likely that the Inuvialuit proportion of the total population will increase. Upon including Dene/Metis people, who live in both Inuvik and Aklavik, it is apparent that native people comprise the majority of the region's population.

Inuvik, the regional administrative and transport centre for the Western Arctic, resembles similarly functioning towns in the NWT, such as Yellowknife and Hay River, where non-native people make up more than half of the population (Usher, 1986A:25-26). Elsewhere in the region'scommunities, at least two-thirds, and often more, of the population is Inuvialuit. In Holman, the proportion exceeds 90% (Table 2.2). Again, this is reflective of general demographic trends in the NWT. Usher (1986A:26-27) points out that the majority of native people (67.7%) reside in communities of 250-1,500, while most non-natives (74.2%) live in regional towns and cities.

The NWT is characterized currently by a large, youthful

population and high birth rates[7], such that the "resultant population pyramid ... reflects the typical broad-based model of third-world, underdeveloped areas" (Wonders, 1987:665). Table 2.2 verifies that this trend is particularly evident in the Western Arctic: in Paulatuk and Sachs Harbour, persons under nineteen make up more than half of the population. The number of households with five or more people, also listed in Table 2.2, offers further evidence that the ISR communities are experiencing high birth rates. In Tuktoyaktuk, 47.2% of all census families had at least three children (Statistics Canada, 1987B:28). Low or negative population growth rates in Holman and Sachs Harbour do not signify anomalies, but are more likely the outcome of emigration to larger communities in the Western Arctic.

The implications of this demographic profile for Inuvialuit renewable resource use and maintenance of traditional management systems within the communities are manifold. The expanding wage economy of the Western Arctic has not kept pace with the rapidly growing number of young Inuvialuit people seeking employment, particularly in the smaller communities. Thus, the land will continue to be an important source of food, clothing, and income for the Inuvialuit. With respect to the passing down of traditional knowledge and experience about the region's wildlife and

---

[7] According to Wonders (1987:665), in 1981, Inuit women had on average 4.6 children.

fisheries, the Inuvialuit are at a critical point in their history. Some of the knowledge of the Elders, the last Inuvialuit generation born on the land and one that is disappearing quickly, will be lost if it is not taught to the largest segment of the Inuvialuit population - those people aged 19 years and under (Interview with L. Harwood, May 11, 1989). The implications of a large youthful population for the potential number of Inuvialuit participants in the IFA co-management regime are discussed in Chapter 7.

2.5 Traditional and Wage Economies in the Region

It has been suggested by a number of researchers that the economy of the Western Arctic, and in fact all of the NWT, is dominated by two distinct, but equally important modes (Usher, 1978:155; Ross and Usher, 1986:142).[8] Far from being mutually exclusive, each is dependent on the other for its continued viability (see Condon, 1983A:48). As expressed by Berger,

> The development of the northern economy has successively given rise to mixtures of economic activity, to overlapping modes of production, consumption and exchange. (Berger, 1977:121)

On the one hand, are the economic functions imported from southern Canada: government, non-renewable resource development, modern transport, and other commercial services.

---

[8] Whittington (1985A:64) suggests the presence of a third mode in the North - the welfare economy - which "buttresses" the two discussed here.

Modern hunting, trapping, and fishing activities, on the other hand, represent altered forms of traditional subsistence practices carried out by the Inuvialuit in the pre-contact period.

The age of the villages and towns of the North reflects the relatively recent development of wage employment as an essential component of the economy. Notably, the six ISR communities were established this century, all but one after 1930 (National Atlas of Canada, 1974:87). Inuvik dates from only 1956, when it was constucted on a previously unihabited portion of land in the southeast of the Mackenzie Delta (Hargrave, 1971:197). Designed specifically as a government, business, and industrial centre to replace flood-prone Aklavik (Wonders and Brown, 1984), the town possesses the most diversified economy in the Western Arctic (Dome Petroleum et al, 1982:4.6).

Today, wage employment opportunities in the Western Arctic appear to far outweigh wildlife and fisheries harvesting in terms of full-time work and income generation. For example, in 1980, trapping accounted for only 0.6% of total cash income in Inuvik (Dome Petroleum et al, 1982:4.7). However, in the smaller, more peripheral communities, the economic roles of the wage sectors and renewable resource harvesting are much more balanced. Furthermore, the full extent of the latter economic activity is only partially accounted for in economic statistics because resources are

commonly consumed in the home, shared with other families, or used for bartering purposes (Usher, 1982:11; Freeman, 1986:31; Ross and Usher, 1986:78).

Although harvesting of wildlife and fisheries is almost solely the domain of native peoples, the last two decades has seen their increasing inclusion in government, service, and industrial sectors (Whittington, 1985A:64). Clearly, a number of Indian and Inuit peoples in the northern regional and administrative centres have become full participants in the urban economy. Generally, though, the division between the native person as participant in wage employment and the native person as harvester has blurred considerably. In smaller communities, some native harvesters are finding that it is not only advantageous to complement their traditional lifestyle with regular wage-earning opportunities, but that these are also an important means of offsetting the rising costs of hunting, fishing, and trapping. In Holman, Condon (1983A:49) notes that

> every adult male in the settlement engages in varying degrees of subsistence hunting. In fact, some of the most active subsistence hunters in the settlement are wage-earners who must limit their hunting forays to weekends and vacations.

Census income statistics overstate the real purchasing power of the region's residents because goods and services are far higher priced in the North (Beaufort Sea Environmental Assessment Panel, 1984:52). Recently, rising costs associated with renewable resource harvesting and decreasing returns on

some types of fur has caught some trappers in a spiral that seriously threatens their liveliehood (Sibbeston, 1986:154). One Inuvik trapper observed in an interview that continuing declines in the value of muskrat fur - attributed to a campaign by the animal rights movement[9] - would mean that the costs of harvesting would soon exceed any income earned. The outlook is not entirely bleak, however. Participation in trapping in the smaller communities, such as Sachs Harbour, has remained consistent and continues to provide a high proportion of the settlement's aggregate income.

For the past two decades, the petroleum and natural gas reserves in the Mackenzie Delta and Beaufort Sea have been the object of recurring interest by southern multi-national oil companies. There are a number of serious weaknesses in their proposals for the large-scale development of these non-renewable resources. Firstly, many northerners believe that such development has frequently proven incapable of providing long-term and consistent employment for native and non-native persons in the North (Canadian Arctic Resource Committee, 1988A:42-43). The oil and natural gas industry in the Western Arctic has experienced a pronounced cyclical pattern that culminated most recently in a halt to exploratory operations in the mid-1980s as a result of the world-wide drop in oil

---

[9] Some have more appropriately referred to this as the "anti-harvest movement," in the context of native subsistence and commercial hunting and trapping in the Canadian North (Canadian Arctic Resources Committee, 1989).

prices. Moreover, many native people have expressed that they have "a long-term interest in the land and its renewable resources, whereas the interests of non-renewable resource developers are relatively short term" (Canadian Arctic Resources Committee, 1984B:43). Secondly, there are considerable concerns about the potentially disastrous impacts of extractive industries on the renewable resource base (Usher, 1986A:16). Thirdly, the majority of benefits of hydrocarbon development in the Beaufort region will accrue southwards, rather than in the North.

Fenge (1984) aptly summarizes the most compelling issue facing the economy of the Western Arctic.

> Lasting development ... is based on diversity and balance, in which renewable as well as non-renewable resources are valued. Similarly, the issue of development cannot be divorced from the question: Development for whom and by whom? (Fenge, 1984:641)

Development of renewable resources, for and by the Inuvialuit, is emphasized in much of the IFA as a result of their efforts during negotiation of the settlement (Delury, 1986).

2.5.1 Significance of Inuvialuit Subsistence Harvesting

Subsistence harvesting by the Inuvialuit is discussed in further detail in order to provide background on Inuvialuit self-regulation, a topic addressed in Chapter 3. It is argued that a sound subsistence economy based on hunting, fishing and trapping strongly implies the existence of an attendant environmental knowledge base and conservation ethic. This is

an arguement that is expanded upon in the following chapter. Briefly, it is asserted that a people who are dependent on wildlife and fisheries for sources of food, clothing, and income, will tend to have a profound depth of knowledge about those species and will employ that knowledge and experience to harvest the species sustainably (for instance, refer to Freeman, 1985; 1986). According to Ross and Usher (1986:144),

> Where the Native economy is strong, there is great emphasis on the socialization of children through traditional activities, on mutual aid and sharing and on a sense of stewardship of the basic natural resources available to the society.

The focus on aboriginal harvesting rights, habitat protection measures, environmental impact assessment, and wildlife and fisheries co-management in the IFA is clearly indicative of the importance accorded the renewable resource sector by the Inuvialuit (Delury, 1986; Carpenter, 1987). The species listed in Table 2.1 provide the basis for the dual components of the traditional economic mode. The role of commercial trapping in Inuvialuit communities has already been described. The focus here is on the component non-native people least understand and most frequently discount - subsistence harvesting (Berger, 1977:100).

A definition of subsistence has been attempted by economists, lawyers, and anthropologists, among others. Few have met the challenge. Thomas Berger, Commissioner of both the Mackenzie Valley Pipeline Inquiry and the Alaske Native Review Commission, came close when he described subsistence

as a way of life that extends far beyond its visible economic role:

> The traditional economy is based on subsistence activities that require special skills and a complex understanding of the local environment that enables people to live directly from the land. It also involves cultural values and attitudes: mutual respect, sharing, resourcefulness, and an understanding that is both conscious and mystical of the intricate interrelationships that link humans, animals, and the environment. To this array of activities and deeply embedded values, we attach the word "subsistence," recognizing that no one word can adequately encompass all these related concepts. (Berger, 1985:51)

While subsistence is difficult to define, it is an even more problematic concept to measure. Few statistics are available about the precise levels of country food (harvested animals, marine mammals, and fish) consumption or the ratio of country food to store-bought food in Inuvialuit diets. Perhaps the most significant obstacle to quantification is the fact that most, if not all of country food consumed is not reflected in the transactions of the communities' formal economies because it is seldom sold, often shared with relatives and friends, and eaten in the home (Ross and Usher, 1986:78-79).

However, a number of studies have documented that native northerners harvest between 109kg and 440kg per capita of country food annually (Usher, 1982:10), and that country food plays a critical role in their diets (Schaefer and Steckle, 1980). According to Peter Usher (cited in Berger (1977:106)), native people in the Western Arctic (excluding Holman) in the 1973-74 season received more than $800,000 for furs and harvested the equivalent of almost $1,600,000 in food. While

the "officially recorded" amount of country food harvested for the same period in the Mackenzie Valley and Western Arctic was 0.8 million kilograms, the actual production was estimated at 2.2 million kilograms (Ross and Usher, 1986:78). In addition, it is noted that in Sachs Harbour, Holman, and Paulatuk, "virtually all families make their living from the land" (Berger, 1977:106). In their 1982 Environmental Impact Assessment of Hydrocarbon Development in the Beaufort Sea - Mackenzie Delta Region, Dome Petroleum et al (p. 5-11) confirmed that the three latter communities and Tuktoyaktuk are self-sufficient with respect to country food harvesting. The most appropriate evidence, however, comes from the Inuvialuit themselves:

> We will always depend on wildlife for food. If anyone thinks this is nothing more than a romantic notion, try to buy fresh milk, eggs, or a beef steak in any of our communities -- you will appreciate that there are significant economic factors involved. It is generally known that we prefer the food produced on our own lands and in our own waters. That is perhaps a good thing. There is reasonable medical evidence to suggest not only that our foods are healthier, but also that native people suffer serious medical problems when subjected to a southern, sugar-rich diet. Therefore, wildlife resources are essential to our survival. (Carpenter, 1987:128)

The Community of Paulatuk and the Wildlife Management Advisory Council (NWT) (1990:9) state:

> Most community residents still depend on the land, and more than 75 per cent of households derive most or all of their food from hunting or fishing.

Subsistence harvesting performs many other important societal and cultural functions in addition to providing sustenance and meeting nutritional requirements. Despite the

transition from a nomadic life-style to a relatively sedentary settlement pattern, the continued dependence on country food has reinforced both spiritual and practical relationships that Inuvialuit people share with nature. At a time when Canadian Inuit people are experiencing a host of social problems, subsistence hunting and fishing, as well as commercial trapping, may serve to promote and strengthen traditional values of sharing and egalitarianism (Ross and Usher, 1986:144; Feit, 1988B:76). Labour-intensive, time-consuming harvesting and post-harvesting activities typically necessitate the involvement of all members of households (Delancey, 1985:6; Robinson and Ghostkeeper, 1987).

> Subsistence activities link the generations and the extended family into a complex network of associations, rights, and obligations. (Berger, 1985:52)

Inuit people emphasize this point often:

> One of the rules of the Inuit that expresses the communal nature of possessions is that, when a young person kills a big-game animal such as caribou or walrus for the first time, the meat is distributed among the respected members of the community and family members of the first-time hunter. The young person is not supposed to keep any part of this meat for himself or for herself. (Peter Ernerk, quoted in Keith and Saunders, 1989:23)

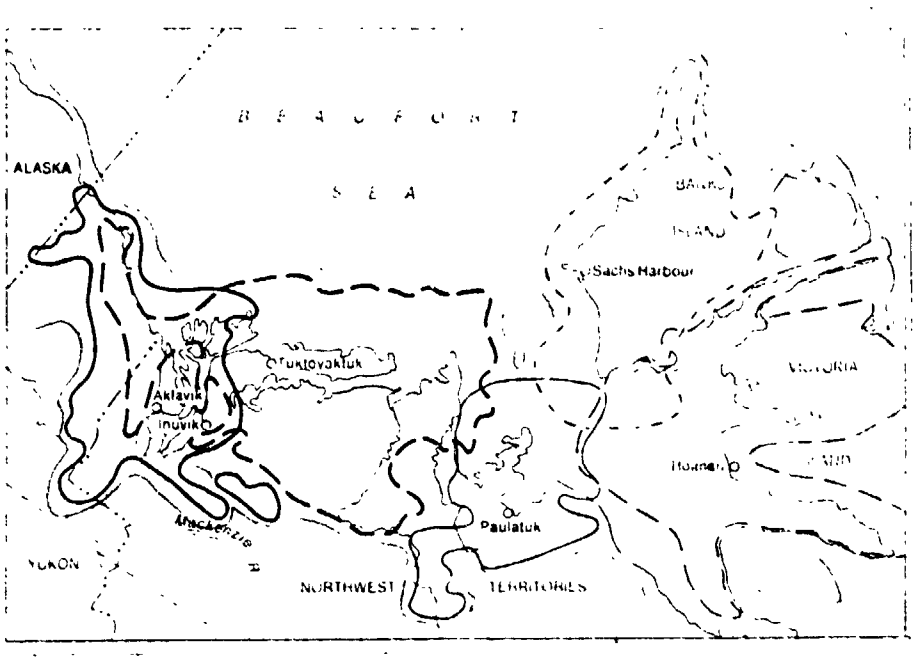
A number of native and non-native people observed in interviews that throughout the Western Arctic, weekends and stays of longer duration spent on the land are eagerly anticipated by entire Inuvialuit families, some of whom maintain their own traditional outpost camps (for example, Interview with L. Fabijan, May 12, 1989).

Freeman (1986:31) comments that technology may have

profoundly altered the outward appearance of subsistence harvesting by northern native peoples, but 'traditional "core values"' are retained. Furthermore, use of skidoos, motor boats, rifles, modern camping equipment, and other consumer goods has facilitated the expansion of the areal extent of Inuvialuit harvesting. This has been particularly important for hunters who can only afford to spend brief periods on the land during breaks in wage employment. Berger (1977:108) explains that current Inuvialuit subsistence land-use is extensive and closely resembles historical occupancy of the region (refer to Figure 2.2).

Despite the impact of considerable change within Inuvialuit society over the last two generations, the cultural roots of pre-contact hunting and fishing practices remain an integral component of the subsistence and commercial harvesting lifestyles. This reflects the continuing importance of a wide range of generally abundnant wildlife and fisheries species that both contribute to income and provide major sources of food. Chapter 3, in part, explores further the relationship between Inuvialuit harvesters and the environment of the Western Arctic.

FIGURE 2.2: Inuvialuit Land Use, 1900-1974



Source: Berger, 1977:108

CHAPTER 3

THE INDIGENOUS AND STATE-BASED SYSTEMS OF RESOURCE MANAGEMENT IN THE NORTH

3.1 The Two Systems of Renewable Resource Management in the Canadian North - Differences and Conflicts

This thesis echoes a growing body of literature in recognizing that renewable resource management in the Canadian North, including the Western Arctic, is characterized by duality (for instance, refer to Andrews, 1988 and Feit, 1988A). The purpose of this chapter is to demonstrate that two systems exist side-by-side, although not without conflict. It is argued that current indigenous self-regulatory practices represent adaptations of highly resilient systems that sustained native people for thousands of years. The state-based system, on the other hand, has been present in the North for less than a century, and consistently active for only seventy years (Usher, 1984:403).

Indigenous self-regulation and state-based renewable resource management ostensibly share similar ends, but differ considerably in means. The following definition of conservation by Peter Green, an Inuvialuit hunter/trapper from the community of Paulatuk, differs only slightly from the range of definitions found in wildlife management textbooks.

> Conservation is ensuring that if we take caribou, there will be caribou the next year and the year after that. The same for everything else. This applies to all uses of the land: if it is used and enjoyed now, it must be left and preserved so that it will be there for the next year and for future years. (The Community of Paulatuk

and Wildlife Management Advisory Council, 1990:6)

How conservation is accomplished through state-based management and indigenous self-requlation, and the world-views within which each system operates contrasts sharply, however. These differences are discussed in detail throughout this chapter. In addition, the presence of two systems has significant implications for co-management which are explored in the next chapter. In this chapter I present evidence to assert that co-management can not simply be considered a bureaucratic arrangement for the participation and insertion of native people in the state-based management framework. I assert that an analysis of the co-management regime implemented under the IFA must also be examined in the context of traditional knowledge.

The gulf that exists between the two systems is the basis for a number of conflicts, the most fundamental of which is the persistent reluctance of many government wildlife managers to recognize, until recently, even the existence of indigenous self-regulation, let alone the value of native knowledge of the environment and conservation practices (Osherenko and Young, 1989:96; Pinkerton, 1989:13-14). The result has been two-fold: government institutions have frequently alienated native harvesters and in the process, excluded a valuable body of knowledge and experience from wildlife and fisheries management (Berkes and Feeny, 1990:52). The indigenous system has, in effect, gone underground,

> being practised more or less covertly at the local level until, in recent years, being revealed by social scientists and reasserted (largely in the context of Native claims) by Native harvesters themselves. (Usher, 1987:7)

In addition, Osherenko (1988:9) suggests that clashes between the two systems result "in serious compliance problems, ecological crises, inadequate research data that can lead to inaccurate conclusions, and unnecessary political and financial costs." It is also evident that in isolation, either system will fail to manage wildlife and fisheries sustainably. Government managers can not make and enforce regulations successfully without the cooperation of native peoples; native customary laws, while governing indigenous harvesting of wildlife and fisheries, can not control external sources of renewable and non-renewable resource development or the use of migratory species outside of their sphere of influence.

The discussion in this chapter of state-based, scientific resource management, particularly its invalidation and oppression of native people and their self-regulatory practices, is highly critical. However, underscoring this discussion is a recognition that "our southern and northern people and their traditions are neither inferior or superior; they are different" (Jacobs, 1988:58). It is important to emphasize that both systems have utility and validity. Co-management, a new administrative concept that provides native people with a role in decision-making, is a recent innovation

in the North American North that offers a possible resolution to the exclusion of native people from decision-making and ineffective management of renewable resources. Whether it will lead to an integration of the two systems, while leaving each intact, is an important question that is explored in this thesis in the context of the wildlife and fisheries co-management bodies established under the IFA.

3.1.1 The Literature - A Contextual Note

The context for the discussion in this chapter and Chapter 4 is derived from alternative perspectives about Western, scientific resource management and literature about the renewable resource management systems of the Indian, Metis, and Inuit peoples of the Canadian North. Of note is the fact that with few exceptions, the available literature is by non-native academics. We must be aware that the definitions, descriptions, and analyses of self-regulation are commonly framed from a culturally-biased, Eurocentric (or other non-native) perspective (Freeman, 1986:30). As a non-native person, I do not represent native experience, and have therefore included the voices of native people on these issues wherever possible.

A number of key authors have spent the past ten to twenty years studying indigenous self-regulation and documenting its presence in the North. More importantly, several of these individuals have recently broadened their original research

about the potential socio-economic, cultural, and environmental impacts of the proposed project (Keith and Neufeld, 1988:91). His recommendation for a ten year moratorium on pipeline construction, which was accepted by the federal government, clearly reflected their views. However, meaningful change in the decision-making process was not rapidly forthcoming.

In 1984, the Task Force on Northern Conservation (1984:12) criticized government inertia, pointing to the lack of political accountability, and the inadequacy of opportunities and formal structures for public participation. This reflected a recognition that consultation on an ad-hoc, issue-by-issue basis was no longer acceptable to northern native people who felt threatened by an impending acceleration of large-scale development projects over which they had little or no say.

To some extent, institutional resistance to granting native people a more participatory role is being overcome presently by the negotiation and settlement of comprehensive land claims. This process will also have a profound and lasting effect on the ways in which renewable resources are managed in the Yukon and NWT. The Western Arctic Claim, for example, provides the Inuvialuit with title to large parcels of land, as well as legislating preferential and exclusive harvesting rights (Indian and Northern Affairs Canada, 1985).

> The state manages for certain levels of abundance on a technical basis, and then allocates shares of this abundance to users on an economic and political basis. The system of knowledge is based on scientific accumulation, organization, and interpretation of data, and management problems are resolved in a technical, ahistorical, and "value-free" framework. This system of management is bureaucratic, which is to say hierarchically organized and vertically compartmentalized. (Usher, 1986A:2)

Consequently, the process for establishing regulations is far removed from harvesters, or the local officers tasked with enforcing them. Given the nature and extent of subsistence activities, enforcement in the Canadian North has been sporadic, often based on uninformed perceptions of the state of a species, and occasionally met with strong resistance with from local harvesters (Feit, 1988A:83-84; Osherenko, 1988:8).

Historically, it appears that federal and provincial government institutions have accorded low priority to the conservation of wildlife and fisheries (Delancey and Andrews, 1988). Similarly, measures to involve native harvesters in renewable resource management have, until recently, been limited solely to consultation, if they have occurred at all (Osherenko, 1988:4). Emphasis on the development of non-renewable resources and non-wildlife resources, such as minerals, petroleum, forests, agricultural land, and river systems, which contribute to a substantial proportion of the national economy, has often overshadowed and invalidated local native interests in the frontier regions of the Near and Far

North (Feit, 1988A:75; Keith and Neufeld, 1988).[1] Centralized authority and top-down decision-making have reinforced this pattern (Usher, 1986A:2). Furthermore, government managers with jurisdiction for environmental protection are confronted by other powerful agencies with conflicting mandates.

One of the most profound distinctions separating the two systems is the way in which each acquires, interprets, and employs information. According to Freeman (1985:265), the state system "is derived from a conventional biological-science based understanding of animal population behaviour and is heavily quantitative in orientation." Sample populations of a species are observed during short fieldwork seasons, and subsequently, data is rigorously manipulated and analyzed using accepted "theoretical models" in order to make inferences about the entire population (Usher, 1986A:107). Freeman (1989A:96) notes that uncertainty, lack of precision, and errors are inherent in such a methodological process. Moreover, the

> orthodox, reductionist, analytic approach used by most biologists is a hold-over from much earlier times when a limited mechanistic view of the universe was applied to all living systems. Rational thinking in those days required linear thinking, whereas 'ecosystems' are sustained in dynamic balance involving cycles and fluctuations anything but linear. (Freeman, 1989A:96-

---

[1] The impact of the W.A.C. Bennett Dam in British Columbia on the Cree Indians of the Peace-Athabasca Delta (Smith, 1986), federal government subordination to southern corporate efforts to exploit oil and natural gas reserves in the NWT over the last several decades, and current pressures to develop mines in the Keewatin District of the NWT (Pelly, 1989:6-7) are clear examples.

97)

The European culture of scientific inquiry has also projected a set of values on the environment that is strictly utilitarian, whereby wildlife and fisheries are viewed as objects of economic value, to be managed so as to achieve an optimal level of exploitation. That scientific resource management has often failed to resolve regional and global environmental problems is related closely to several principles of the dominant Western cultural paradigm. Perhaps most significant is the belief that humans can, on the one hand alter the environment, and on the other, deal effectively with the consequences (Devall and Sessions, 1984:299 and 301). However, the reliance of industrial nations on technology has in the view of many contemporary researchers, in most cases, led to a very narrow approach to resource issues and may be instrumental in causing further environmental degradation (Ophuls, 1977). The situation is compounded because resource management institutions have typically been myopic and reactive - they respond to environmental problems only when these reach crisis proportions. The belated response of North American and European governments to acid rain and its destruction of lakes and forests, and the disposal of toxic wastes are just two examples.

Since it came to predominate in the North, the state-based system has tended to suppress indigenous self-regulation (Usher, 1986A). Education requirements, linguistic and

cultural barriers, and other factors, some of which can be attributed to racism (Frideres, 1983:2-6), have generally excluded native people from renewable resource management institutions in the past, and to a large extent continue to do so.

3.2.1 The Institutional Framework for Renewable Resource Management in the Northwest Territories

Under the British North America Act, 1867 (Section 91-Preamble) and following events over the next two decades, the federal government was accorded proprietary rights and legislative authority for the Canadian North (Mitchell and Sewell, 1981:5-6). For almost a century prior to 1967, "administration of the North was characterized by chaos" (Rees, 1978:46) largely because the centralized and unwieldy Department of Indian Affairs and Northern Development (DIAND), an internal colonial office in all but name, performed almost all bureaucratic functions and "was responsible for the delivery of all services that would have been provided by a province in the South" (Whittington, 1985A:73).

Since 1967, the federal government has committed itself to a transfer of responsibility for a number of areas, including many aspects of renewable resource management, to the territorial legislative assembly and public service

(Wonders, 1981:71).[2] Usher (1986A:31; 1986B:75) comments that while the Department of Renewable Resources (DRR) of the Government of the NWT (GNWT) has quickly grown to resemble its provincial counterparts with respect to policy formulation and the composition of the central bureaucracy, it has endeavoured to decentralize licensing and enforcement, and has allocated limited research responsibilities to a comprehensive network of local and regional offices.

Although devolution has granted the GNWT considerable authority, renewable resource management is plagued by fragmented responsibilities, divided jurisdiction, and administrative duplication (Mitchell and Sewell, 1981:5-10), as is illustrated in Table 3.1. That the federal government, largely through DIAND, also is responsible for administration of all land and water in the NWT, adds another complicating element (Usher, 1986A:89-90). In effect, management of wildlife and fisheries is separated from decision-making affecting the habitat that sustains them. Consequently, conservation measures can be undermined by powerful, southern industrial interests, federal government departments with pro-development mandates such as Energy, Mines, and Resources, and ministerial discretion in the enforcement of environmental regulations and protection. For instance, the federal

---

[2] The transfer of authority is referred to as devolution. The 1966 Report of the Advisory Commission on the Development of Government in the Northwest Territories was the catalyst for devolution and the rapid administrative changes that accompanied it (Wonders, 1981:70).

TABLE 3.1: Management Jurisdiction for Wildlife and Fisheries in the NWT

Category of Wildlife/ Fisheries Species	Human Use	Jurisdiction
Big Game	subsistence/ sport	NWT-DRR, EC-CWS
Fur Bearers	subsistence/ commercial	NWT-DRR, EC-CWS
Small Game	subsistence/sport	NWT-DRR
Large Marine Mammals	subsistence/ commercial	DFO
Seals	subsistence/ commercial	DFO
Waterfowl	subsistence/ sport	EC-CWS
Other Birds	subsistence/ sport	NWT-DRR, EC-CWS
Freshwater, Marine and Anadromous Fish	subsistence/ commercial/sport	DFO

N.B. EC-CWS, DFO, and NWT-DRR are all involved in international wildlife and fisheries agreements/ arrangements. To qualify for inclusion in the table, agencies must have a direct role in management. This table purposely excludes co-management regimes in order to give the reader an impression of the complexity of the institutional framework for renewable resource management without these recent additions.

NWT-DRR - Department of Renewable Resources, Government of Northwest Territories
EC-CWS - Canadian Wildlife Service, Environment Canada
DFO - Department of Fisheries and Oceans (Canada)

SOURCE: Usher, 1986A:20

"Territorial Lands Act and its regulations can be viewed as a mechanism to contain environmental criticism, while serving the process of industrial development" (Keith and Neufeld, 1988:93). Thus, the reductionist, reactive, and conflicting approach of the existing institutional framework acts as a barrier to the achievement of integrated resource management, an oft-repeated, but elusive goal advocated by many public servants, environmental organizations, northern residents, and academics alike. The Task Force on Northern Conservation, commissioned by DIAND and representing federal and territorial government, native,conservation, and industrial interests, defined integrated resource management as

> an active, decision-oriented approach rather than one that is reactive and largely dependent upon regulation. Such management must be based upon research, inventory, and evaluation and result in the making of decisions within the framework of a comprehensive planning system that provides for extensive public input and political accountability. (Task Force on Northern Conservation, 1984:16)

Up until the last two decades, DIAND's paternalistic administration of the NWT excluded native peoples from almost all decisions about land use and resource allocation (Tester, 1981). The Mackenzie Valley Pipeline Inquiry of the mid-1970s marked a long-overdue recognition by the federal government that native people and their representative organizations could no longer be denied a role in northern development issues (refer to Berger, 1977). During unprecedented informal community hearings, Justice Thomas Berger, Commissioner of the Inquiry, listened to the concerns of Dene, Metis, and Inuit

about the potential socio-economic, cultural, and environmental impacts of the proposed project (Keith and Neufeld, 1988:91). His recommendation for a ten year moratorium on pipeline construction, which was accepted by the federal government, clearly reflected their views. However, meaningful change in the decision-making process was not rapidly forthcoming.

In 1984, the Task Force on Northern Conservation (1984:12) criticized government inertia, pointing to the lack of political accountability, and the inadequacy of opportunities and formal structures for public participation. This reflected a recognition that consultation on an ad-hoc, issue-by-issue basis was no longer acceptable to northern native people who felt threatened by an impending acceleration of large-scale development projects over which they had little or no say.

To some extent, institutional resistance to granting native people a more participatory role is being overcome presently by the negotiation and settlement of comprehensive land claims. This process will also have a profound and lasting effect on the ways in which renewable resources are managed in the Yukon and NWT. The Western Arctic Claim, for example, provides the Inuvialuit with title to large parcels of land, as well as legislating preferential and exclusive harvesting rights (Indian and Northern Affairs Canada, 1985).

All aboriginal land claims in the territories, including the three currently under negotiation, contain provisions for the implementation of co-management regimes for wildlife, environmental impact assessment, and land-use planning (for instance, the claims referred to in Bankes, 1987; Indian and Northern Affairs Canada, 1988), which on the surface, offer their beneficiaries tangible involvement in decision-making.

For more than a decade, comprehensive land-use planning in the North has been suggested as a means of mitigating the problems discussed in this section and resolving resource conflicts fairly (Fenge and Rees, 1987). According to Rees:

> Land-use planning is a special variation of planning that can contribute to the just resolution of many kinds of land-use conflict. It is specifically designed to guide the allocation of public lands and associated resources among competing uses. ... in deciding among these alternatives, public land-use planning must be sensitive to the spectrum of legitimate interests likely to be affected by final decisions. (Rees, 1987:13)

In the ISR, the Mackenzie Delta Beaufort Sea Regional Land Use Planning Commission (1988) - a body required by the IFA - has sought to establish a forum for equal native participation at all stages, including preparation of community resource use maps and formulation of planning goals and objectives. Whether policy-based land-use planning will fulfil the expectations it has kindled, however, is uncertain. The prospect that this land-use planning may duplicate existing renewable resource management activities or functions of the fledgling co-management bodies must be addressed.

When considering the direct involvement of native people

narrowly define this system of management (Feit, 1989:79). However, common elements observable among Northern native communities include, but are not limited to, the following:

* an inseparable link between management and harvesting;

* the development, over many generations, and the sharing of a vast, integrated, and non-compartmentalized knowledge base of the local/regional terrain and species behaviour and population trends acquired through two sources: harvesting activities, butchering, and consumption, and story-telling and teaching;

* values, ethics, spiritual notions, and customary laws that emphasize harvesting according to need, a feeling of respect for the environment and particularly those wildlife and fishery species relied upon, avoidance of waste, and sustainable use;

* and consensual modes of decision-making within the household and community (Berkes, 1981A:167; 1989C; Delancey, 1985:5; Feit, 1984; 1986:60-61; 1988A; 1989; Freeman, 1985:273; 1989A; Gunn et al, 1988; Osherenko, 1988:4; Riewe and Gamble, 1988; Usher, 1984; 1986A:3, 1987; Whittington, 1985A:65-67).

Reciprocity also frames the relationships of many northern indigenous cultures with their surrounding environment (Feit, 1988A; Berkes, 1989A:73-74). Jacobs' reference of Robert's quote of an Inuit hunter, helps to explain this concept:

> All the creatures that we have to kill and eat, all those that we have to strike down to make clothes for

about the level of local involvement contrast with those of non-governmental observers (see Usher, 1986A, for example). There have been some positive changes in the last two decades that have served to alter the framework of the state-based system in the Canadian North, providing native people with more opportunities to participate in decision-making and assert their interests. These changes are largely attributable to devolution and decentralization of decision-making, the politicization of native peoples, negotiation and resolution of land claim settlements, implementation of co-management, and confirmation of certain aboriginal rights. However, it is apparent that native harvesters in many parts of the North have not achieved the role in decision-making they aspire to and that the process for expanding the present role of indigenous self-regulation will not come from within either the federal or territorial governments. I suggest throughout this thesis that the implementation of co-management regimes that incorporate and legitimate self-regulatory institutions may help to overcome government inertia or bypass it.

3.3 Indigenous Self-Regulation Systems

> ... many Indians ... say that their contribution to the ways in which we all live in the future might be far greater than can now be imagined. With limited needs and a careful protection of resources, they are the peoples who have prospered. Perhaps it is not entirely fanciful to echo the thoughts of every important Indian leader since the first treaties were being negotiated: in the end, they may have to teach us the crucial lessons

of survival. (Brody, 1988:272)

> I am pleased to know there are people down South who are concerned about the environment. We have always been environmentalists; we have always been conservationists. We have always practised that; it is part of our tradition, and now it is being questioned. (Thomas Coon quoted in Keith and Saunders, 1989:16)

Indigenous self-regulation has been variously referred to as traditional management and knowledge of the environment, self-management, customary law, native environmental philosophy or ethics, and ethno-ecology. Several of these terms are used interchangeably in this thesis.

For more than a century, philosophers, anthropologists, artists, and environmentalists have expressed the belief that North American native peoples have an environmental outlook based on respect, reverence, and a perceived spiritual connection to nature (Epes-Brown, 1973; Booth and Jacobs, 1990). However, academic inquiry into how this relationship has been manifest in prudent hunting, fishing, and trapping activities and the pursuit of conservation goals - that is, systems of indigenous self-regulation - dates back only to the mid-1960s. Moreover, the majority of literature on the subject has appeared only in the past decade. This research has coincided with the efforts of Northern native people to record and raise awareness about their traditional resource management systems (see Cohen and Hanson, 1988; Colorado, 1988; Gunn et al, 1988; and Jacobs, 1988:55-56).

Andrews (1988) prepared a bibliography illustrating that indigenous self-regulation has been documented on all the

continents (refer alsc to McNeely and Pitt, 1985 and Berkes and Farvar, 1989), a fact that is reflected in the World Conservation Strategy (International Union for Conservation of Nature and Natural Resources, 1980, sec. 14(10,11)).[3] Cohen and Hanson (1989) have edited an inventory of communities that practice local-level, non-governmental resource management in Canada; the majority of these are native communities.

Recently, social scientists have debated the inevitability of Garret Hardin's (1968) "tragedy of the commons" hypothesis and its accompanying argument about the necessity for "coercive regulation by external authorities" of common property resources such as marine fisheries (Usher, 1987:8; Wheeler, 1988:38). According to this alternative perspective, Hardin's (1968) argument indicates the cultural bias of a Western worldview that overemphasizes competition and individualism and precludes a recognition that other cultures may manage common property resources through cooperative means (Berkes, 1989A:71-72). Berkes (1989A) and others have demonstrated the success of aboriginal groups around the world, as well as peripheral non-native communities, in managing communal property resources for sustainability (McCay and Acheson, 1987A; Berkes, 1989B; and

---

[3] In fact, Indigenous Survival International (1989:199) "recommend that the World Conservation Strategy recognize the need for cultural diversity as much as biological diversity" given the "accrued richness of traditional conservation knowledge."

Berkes and Feeny, 1990). These researchers are currently studying the preconditions and characteristics of how this occurs (Gibbs and Bromley, 1989).

Unlike the state-based management system, which is primarily informed by sources and exercise of centralized authority, indigenous self-regulation is, in Feit's (1988A:74) terms "embedded in local practices and knowledge with respect to world view, [communal] property rights, social authority, and the definition of the sacred." However, both biologists in DRR or the Canadian Wildlife Service and native harvesters acquire information about animal and fish species, systematically interpret that information and make inferences, and subsequently make decisions regarding possible restraints on harvesting. Thus, wildlife management in both systems is a misnomer in that it refers not so much to the manipulation of wildlife populations[4], but to regulation of human use of wildlife (Filion and Parker, 1984:7; Usher, 1986A:109). As suggested in section 3.1, evidence of these similarities may serve to validate indigenous self-regulation, but also obscures fundamental differences between the two systems that more detailed examination and research reveals.

Because self-regulation is practised by culturally distinct, although not entirely disparate groups of native harvesters, it is difficult, as well as inappropriate to

---

[4] Occasionally, wildlife management agencies will "cull" specific animal populations after concluding that natural predator-prey relationships are imbalanced.

narrowly define this system of management (Feit, 1989:79). However, common elements observable among Northern native communities include, but are not limited to, the following:

* an inseparable link between management and harvesting;
* the development, over many generations, and the sharing of a vast, integrated, and non-compartmentalized knowledge base of the local/regional terrain and species behaviour and population trends acquired through two sources: harvesting activities, butchering, and consumption, and story-telling and teaching;
* values, ethics, spiritual notions, and customary laws that emphasize harvesting according to need, a feeling of respect for the environment and particularly those wildlife and fishery species relied upon, avoidance of waste, and sustainable use;
* and consensual modes of decision-making within the household and community (Berkes, 1981A:167; 1989C; Delancey, 1985:5; Feit, 1984; 1986:60-61; 1988A; 1989; Freeman, 1985:273; 1989A; Gunn et al, 1988; Osherenko, 1988:4; Riewe and Gamble, 1988; Usher, 1984; 1986A:3, 1987; Whittington, 1985A:65-67).

Reciprocity also frames the relationships of many northern indigenous cultures with their surrounding environment (Feit, 1988A; Berkes, 1989A:73-74). Jacobs' reference of Robert's quote of an Inuit hunter, helps to explain this concept:

> All the creatures that we have to kill and eat, all those that we have to strike down to make clothes for

> ourselves, have souls, souls that do not perish with their bodies, and must therefore be pacified lest they should revenge themselves on us for taking away their bodies. (Robert (1986:53) cited in Jacobs (1988:52))

In addition, Colorado (1988:56-58) notes that the elders, older community members with considerable life experience, are one of the principle foci of native science, and as holders of the oral tradition, possess much of the cultural, historical, and environmental knowledge accumulated and passed down by countless generations before the arrival of the Europeans.

More specifically, the

> indigenous tradition emphasizes ... flexibility in response to immediate conditions, management practices such as land rotation or sanctuary, and enforcement by means of gossip, ridicule, or avoidance. (Usher, 1986A:84)

As a result, self-regulation tends to respond better to local depletion of wildlife involving community members and/or natural, localized factors (Berkes, 1982:33). This does not suggest serious inadequacies in the system; it simply means that indigenous self-regulatory institutions are not invulnerable to disruption given significant cultural impacts and that traditional users are often unable, or do not wield sufficient power, to influence resource use by non-native outsiders, external degradation of a migratory species, or the incursion of large-scale industrial activities (Usher, 1987:8; Feit, 1988A:84). Nor am I asserting here that indigenous self-regulation has always led to wise use of wildlife and fisheries by native harvesters. As Feit points out,

> A pattern of successes and failures of self-management should not be surprising in so changing an environment as the North. And, lest we judge it too rigidly, we must note that it should not surprise us either that scientifically based, state-mandated management has also had an uneven record of accomplishment in the North. (Feit, 1988A:83)

What is needed in the North, therefore, is not renewable resource management solely by the state system nor its replacement by self-regulatory institutions, but a new framework that integrates the two systems.

However, some academics and wildlife bureaucrats consider that traditional management systems for sustainable harvesting have never existed, or have been irreparably compromised since interaction between native peoples and Europeans first occurred (Guthrie, 1971:722; Sieber, 1978:203; Macpherson, 1981; and Theberge, 1981). Native people have noted that this dismissal is reflective of Western "intellectual imperialism" and acts as a barrier to the integration of two valid and important systems of knowledge (Colorado, 1988:60). It has also been refuted by Freeman (1985:276; 1986:35) and others who assert that, generally, the logical outcome of communities' interrelatedness with the environment is the pursuit and fulfilment of conservation efforts. If native people have accumulated an intricate set of information about a region, and have a socic-cultural, economic, and nutritional dependence on the wildlife and fisheries in that region, it follows that appropriate action - in this case, sustainable use - will be undertaken.

> Inuit have always been dependent upon wildlife. Our cultural and economic survival depends on the availability of abundant and healthy stocks of wildlife. (Ernerk, 1987:137)

In addition, Feit (1988A:84) asserts that local-level self-management more effectively conserves renewable resources in the North than does government. Caulfield echoes this assertion and states that, increasingly, researchers are suggesting that indigenous self-regulation and

> management frameworks in which indigenous systems and state systems work together constructively, may prove to be more effective in addressing Northern resource management issues than are current systems. (Caulfield, 1988:61)

Perhaps the most extensive documentation of the current existence and practice of indigenous self-regulation are Berkes' (1981A; 1982; 1988; 1989A) and Feit's (1973; 1982; 1984; 1986; 1988A) studies of the Chisasibi and Waswanipi Cree of James Bay in Northern Quebec.[5] For example,

> ... information on the composition of beaver colonies is continually collected by Waswanipi hunters from signs of the beaver around the sites, from the sizes and sexes of the beaver caught, and from information collected in the process of butchering beaver. ... When the Cree hunters who were in charge of specific hunting territories were interviewed in land use surveys in the 1970s it was found that they could not only mark on a map beaver lodges occurring in a hunting territory in excess of 300 km2 but many could indicate how many beaver of each age and sex category had been harvested the last time a lodge was trapped, and some could indicate how many of each age group they thought were still to be found at the colony. This inventory often involved a report on 50 to 100 beaver colonies. (Feit, 1988A:78)

---

[5] In fact, Berkes (1988:7-8) describes a process of inquiry for documenting native sustainable resource use practices, and how these can be traced to an accompanying knowledge base and environmental ethic.

> These are precisely the kinds of data that nonnative game managers try to get in order to manage moose and beaver populations. Senior Cree hunters who have returned frequently to the same hunting territories ... have more detailed knowledge of the game populations they hunt and manage than nonnative game managers can usually have for the vast tracts under their management and intermittent observation. (Feit, 1989:79-80)

Similar documentation of the comprehensive knowledge base developed by the Chiasasibi Cree has been done by Berkes (1981A; 1982; 1988). More recently, his research has demonstrated that the attendant Chiasasibi land-use system is an example of a common-property institution that contradicts the "tragedy of the commons" outcome, and confirmed that communal-property resources can be managed for sustainability (Berkes, 1989C).

How prevalent is self-management elsewhere in the North? According to Berkes (1989C:78), the sustainable land-use system and environmental knowledge base maintained by the Chisasibi Cree is not unique among northern native peoples. Moreover, studies have demonstrated that local-level conservation is practised by Indian communities in northeastern British Columbia (Brody, 1988), the Dene/Metis of the Mackenzie Valley (Delancey, 1985; Delancey and Andrews, 1988:161), the Inuit of the NWT (Gunn et al, 1988 and Riewe and Gamble, 1988)[6], and Alaskan native peoples (Feit, 1988A:81; Freeman, 1989B; Langdon, 1989).

---

[6] Self-regulatory practices among the Inuit in the NWT will be discussed further in Section 3.3.1.

Feit, working on the assumption that self-regulation is relatively widespread in the Northn, and highly resilient and adaptable to change (Feit, 1984:443; 1986:61-62; Freeman, 1985:31), argues that we need to examine more closely those conditions that repress it. The most disturbing of these appears to be the lack of awareness within federal and territorial government departments with jurisdiction for renewable resources of the on-going functioning and value of traditional management (Wagner, 1986:345). Some implicit recognition at the ministerial level (for instance, Sibbeston, 1986:157), within the federal and territorial governments (for instance, Government of the Yukon, 1988; Gunn et al, 1988:27), and in land claim settlements[7] has occurred. However, it seems that little of the recent research, discussion, and analysis by the academic community has filtered through to much of the bureaucracy that possesses "day-to-day" decision-making authority. In an Inuit person's words:

> Our knowledge of the environment and resources has been downplayed, and our lack of scientific training has been cited as a reason for excluding us from a meaningful role in management. (Ernerk, 1987:135)

Sadly, the historical failure of government to acknowledge

---

[7] These include the James Bay and Northern Quebec Agreement (sec. 24) (Berkes, 1982:31) and the IFA (Indian and Northern Affairs Canada, 1985:sec. 14(5)). The Dene/Metis Comprehensive Land Claim Agreement in Principle, for example, establishes the objective:

> to respect the harvesting and wildlife management customs and practices of the Dene/Metis and provide for their ongoing needs for wildlife (Indian and Northern Affairs, 1988:53)

and incorporate the indigenous system has led in part to indifference or nescience among some native youth about their peoples' traditional means of managing renewable resources (Usher, 1986A:79-80 and Osherenko, 1988:5), particularly among those in the more urbanized settlements and those who leave their communities for schooling.

In summary, indigenous self-regulatory practices continue to frame the way in which many Northern native harvesters interact with the environment, despite the fact that this system has been repressed historically by state-based, scientific resource management. The repression is regrettable given that traditional knowledge and experience of renewable resources can provide an invaluable contribution to the future sustainable development of the North. Moreover, it can be argued that a denial of indigenous self-regulation, as well as harvesting rights to wildlife and fisheries (necessary for the maintenance of traditional life-styles), is as Freeman (1986) suggests, a denial of fundamental human rights. Therefore, we must look to arrangements such as co-management, that may a) promote indigenous self-regulation; b) encourage the state-mandated system to validate and draw upon traditional knowledge and experience; and c) result in a further integration of the two systems.

3.3.1 Inuvialuit Self-Regulatory Practices

> Knowledge of wildlife is integral to the Inuit culture which is still essentially a hunting culture that has

> depended upon Arctic wildlife for three thousand years. (Gunn et al, 1988:22)

My literature review has revealed that most research on the self-regulatory practices of Inuit hunters and trappers has been far less comprehensive and rigorous in scope than that carried out by Fikret Berkes and Harvey Feit for the James Bay Cree. There has been enough evidence collected, however, to lend credence to the assumption that the Inuvialuit maintained, and still maintain, a system of self-regulation ensuring sustainable use of wildlife and fisheries. Discussion in Section 2.5.1 demonstrated the continuing role of hunting, fishing, and trapping in the Inuvialuit culture and economy.[8] In addition, a number of researchers have done some limited documentation of the knowledge base and current conservation practices of Inuit hunters across the Canadian Arctic (Brody, 1976; Condon, 1983B; Freeman, 1979; 1985; 1989A: 102-103; 1989B; Gunn et al, 1988; Riewe and Gamble, 1988; Wenzel, 1986).[9] Most important of all, according to many observers, is that Inuit peoples throughout the North assert that their tie to the land is of central importance in their lives and their culture, and that their

---

[8] In their study of Canadian Inuit land use and occupancy, Usher (1976A; 1976C) and Freeman et al (1976) indicated that the present extent of hunting and trapping coincides with the areas traditionally used before the permanent settlements were established.

[9] The concluding chapter of this thesis expresses some of my concerns about the need for, and process of, non-native, academic research documenting traditional knowledge.

interconnectedness with the environment accords them access to a wide range of information about wildlife and fisheries and the habitat of harvested species (refer to Thomas Coon's comment at the beginning of Section 3.3; Brody, 1976; Interview with M. Ekootak, May 9, 1989; Gunn et al, 1988; Osherenko and Young, 1989). For example, Peter Ernerk, President of the Keewatin Inuit Association, comments:

> We have always been taught that we cannot disassociate ourselves from our surroundings. We are always aware of the fact that we are merely a part of the natural scheme of things. ... the Inuit have survived in one of the world's harshest environments for thousands of years and have done so without causing irreversible harm to the environment. Dignity, respect, and, in a sense, self-interest guide us and act as our environmental ethics. I would like to clarify this last element of "self-interest." I use the term to show our acknowledgement that, for us to survive as a people, so must our land and our food supply. We do not kill for sport; we kill to eat and support our families. Wastage is frowned upon. (quoted in Keith and Saunders, 1989:23)

I am not arguing here, nor do the Inuvialuit themselves argue, that Inuvialuit culture or lifestyles have remained unchanged in the post-contact period. What I am suggesting is that despite considerable change over a relatively short period of time, Inuit peoples have maintained their tie to the land and the attendant self-regulatory institutions. In fact, almost all interviewees (native and non-native) affirmed the existence of an Inuvialuit system of self-regulation. Condon, who has carried out extensive research in the community of Holman, asserts that

> modern Inuit material culture is still oriented toward the demands of hunting, trapping, fishing, and coping with the extreme cold of the arctic climate. To a large

> extent, traditional skills and knowledge are still relied upon in pursuing time-honoured subsistence activities. (Condon, 1983B:154)

Gunn et al (1988:25) comments that Inuit "Hunters make observations in the course of their travelling and hunting and the intensity of their vigilance may be awe-inspiring." Freeman (1985:271-274) explains how Inuit hunting communities accumulate and interpret information about wildlife and fisheries, and provides three recent examples where Inuit empirically-based knowledge of a species or a local population of a species has proven to be far superior to that of the scientist/manager.

> The Native system assesses deviations from the norm in a qualitative sense: eg. animals become fewer, or fatter, or more excited, there are fewer calves in the herd, more injured bulls, more barren cows, etc. etc. All such information provides important evidence of trends taking place in the status of the population. (Freeman, 1985:275)

Inuvialuit Elders, the last generation born on the land, are the basis of an oral tradition that includes a vast storehouse of knowledge about the land accumulated over hundreds of generations (Gunn et al, 1988:28; Riewe and Gamble, 1988:34-35; Interview with L. Treseder, May 11, 1989). Their continuing influence is a sign that the Inuvialuit are not that far removed from their nomadic past. According to M. Ekootak (Interview, May 9, 1989), a director for the Holman Hunting and Trapping Committee, older hunters in the community are teaching the youth how to utilize all parts of an animal and to respect the animals, fish, and birds they harvest,

thereby avoiding waste. During fieldwork, I heard other first-hand accounts of Inuvialuit knowledge of the ecology and terrain of those lands they have traditionally occupied from both Inuvialuit and government representatives on the co-management bodies and staff people with the Joint Secretariat. According to L. Fabijan (Interview, May 12, 1989), a biologist working for the territorial Department of Renewable Resources, Inuvialuit harvesters are usually the first to observe local population fluctuations, behavioral changes, and variations in the timing and routing of migration patterns. She also spoke of Inuvialuit parents in Tuktoyaktuk, who take their families to outpost camps for extended periods of time, teaching their children about avoidance of waste following harvesting, and the killing of only those animals they intend to use. Another interviewee noted that when the Fisheries Joint Management Committee examined fisheries potential in the Prince Albert Sound region, they relied on the Elders of the nearby community for information about those rivers which supported char runs, rather than test fisheries carried out by biologists (Interview with V. Gillman, May 16, 1989). The potential of the wildlife and fisheries co-management bodies set up under the IFA to further this sharing of information is discussed in Chapter 7.

3.4 The Need for Recording Inuvialuit Knowledge and Conservation Practices

Interestingly, a number of non-native participants in

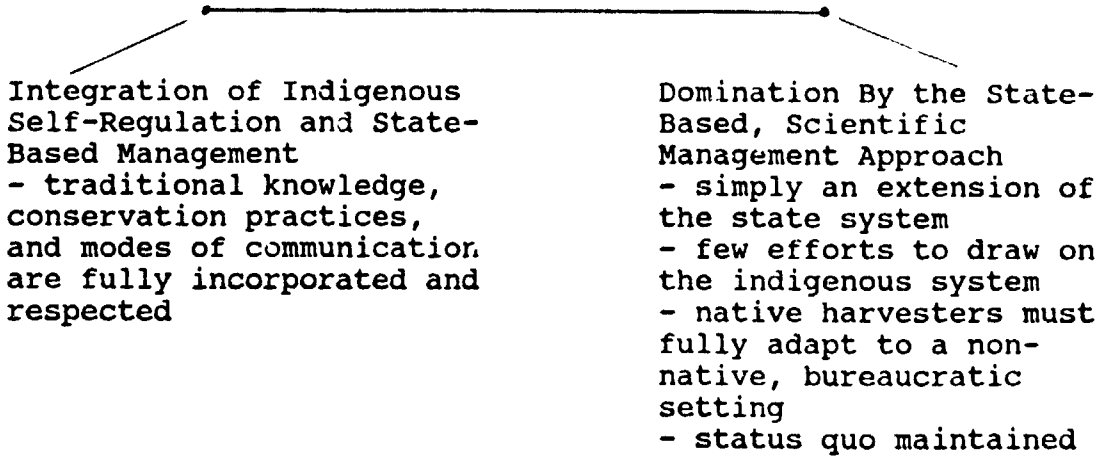


FIGURE 4.2: A Continuum of Co-Management Arrangements

These criteria include the level of authority and political influence wielded, the degree to which governmental members acknowledge, validate, and integrate indigenous self-regulatory practices, and efforts to redress barriers that exclude native people from an equal role. (These criteria will be discussed further in Chapter 5.) For instance, I am arguing that a structure that represented a departure from strictly status quo, science-based decision-making and process would fall towards the left-side of the continuum. On the other hand, it is suggested that one that conformed to the model of co-management set out in the federal government's Comprehensive Land Claims Policy (refer to Indian and Northern Affairs Canada, 1987) would fall towards the right side of the continuum.

Berkes (1981A:166) describes three forms of co-management, or "hybrids," which lead to a combination of the

the IFA co-management regime who affirmed the existence of traditional knowledge, spoke of the need to "get this down in writing." Given the value of self-regulatory institutions and their role in Inuvialuit culture, recording the experience of knowledgable hunters and elders should be of the highest priority. What is not recognized here, however, is that there is a danger that this knowledge will be translated into a non-native scientific structure and form of communication. In other words, knowledge is not legitimized until it is in form that is compatible with the procedures of scientific resource management. In the process of collecting and systematizing traditional knowledge something essential could be lost.

Not surprisingly, Inuvialuit people are extremely hesitant to describe traditional conservation practices and ways to non-natives.[10] In the words of a non-native resource person working for the Wildlife Management Advisory Council and the Inuvialuit Game Council,

> ... the Elders always talk about the right way to shoot an animal, the right kind of animal to shoot. When they cut an animal open, count how many fetuses were in it, they can tell how many they should shoot this year. You just hear these tid-bits here and there, but if you go to talk to them about it they just clam up. Its really hard to get at it, but I think it is there and what we're going to try and do through the Paulatuk Conservation Plan is get people in the community to interview the other people in the community in a systematic way.

---

[10] This distrust is justified given the history of the Western Arctic - the genocide of the Mackenzie Delta Inuit, the movement of Inuvialuit into permanent settlements by the federal government, DIAND'S paternalistic control over Inuvialuit affairs, and the past behaviour of some southern researchers.

(Interview with L. Treseder, May 11, 1989)

While it is critical that traditional knowledge be recorded, there is a parallel need for native people to be not only full participants in the recording, but to organize and carry it out themselves. Fortunately, work of this nature has already been done by the community of Fort Good Hope in the Mackenzie Valley of the NWT (Delancey and Andrews, 1988:161). Currently, the IFA co-management regime is working towards setting up such opportunities. The Paulatuk Conservation Plan, the first local-level plan prepared jointly by community members and the Wildlife Management Advisory Council (NWT), refers to the importance of recording traditional knowledge and self-regulatory practices and incorporating these into all aspects of management (Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1990:31-32). In time, the entire region could perhaps benefit from the efforts of this latter community. Chapter 7 analyzes the regional and community conservation plans as a means of bridging the gap between state-based management and Inuvialuit self-regulation.

CHAPTER 4

THE EMERGENCE OF CO-MANAGEMENT

4.1 Introduction

The co-management regime established in accordance with the IFA is just one of many such arrangements set up in the last decade and a half in response to demands by native people for their full inclusion in wildlife and fisheries management and the use and allocation of lands they have traditionally occupied. Additionally, the emergence of co-management initiatives has paralleled efforts by peripheral communities throughout the North to develop more sustaining, self-reliant economies. This recognition also reflects a growing recognition by centralized government agencies that development must come from within communities, and that planning will fail without the full participation of the communities. Concurrently, northern native people have become increasingly frustrated with centralized regulation of harvesting activities and government authorities have often faced resistance when implementing unpopular management decisions or policies, particularly when these conflict with cultural values or harvesters' own knowledge about the state of a fisheries stock or wildlife population (Pinkerton, 1989B). Thus, co-management could be considered as a means for mitigating these problems.

The literature on the concept and practice of co-

management is limited because the process of formally involving traditional users in resource management, even if just in an advisory capacity, is a relatively new element in the renewable resource management institutional framework.[11] Generally, co-management in North America appears to have been restricted to peripheral geographic regions where native people comprise the majority of the population, subsistence and trapping activities are widespread, and factors such as threats to a wildlife species or a land claim settlement motivates the signing of a shared management agreement. Indeed, as indicated in Section 4.4, co-management is largely a northern experience. While there is a large body of literature documenting indigenous self-regulatory practices throughout the world (for instance, Andrews, 1988), I found little evidence of co-management regimes operating outside of North America. McCay and Acheson (1987B) and Acheson (1989:215-216) suggest, however, that joint management between local users and government authorities of common property resources is not confined to this continent, though it may,

---

[11] Geographers have generated a large body of research concerning public participation in resource management, a practice with a much longer history than co-management (see Sewell and O'Riordan, 1976; Mitchell, 1979:137-147). While this literature will be referred to and offers some relevance, it does not provide an appropriate context for the thesis. The implementation of public participation programs occurs on an issue-by-issue basis when there is a perception that a development project will impact on a region. Thus, public participation strategies generally do not envision or foster an on-going and broad role for interested parties in the decision-making process.

perhaps, take place under less formal arrangements than the North American examples of co-management, such as the James Bay and Northern Quebec Agreement and the IFA regimes.

The origin of the term co-management is uncertain. A recent anthology of fisheries co-management theoretical development and case studies (Pinkerton, 1989A) neglects to discuss who or what organization first coined the term. "Co-management" appears to have come into common usage as a term to describe joint management of renewable resources by traditional users and government bodies during the mid-1980s in Canada and the United States. The earliest usages I have found of it are Pinkerton's (1987:368) references to government-sponsored studies in Washington State, U.S. and Quebec in 1982 and submissions by Indian groups in British Columbia in 1981 about fisheries management.

As a point of clarification. it should be noted that co-management arrangements have only occasionally been identified as "cooperative management." Setting aside semantic arguments, it is my belief that this term is not appropriate because it presumes cooperative efforts between both actors at the outset. Given the highly-justified mistrust of many native people toward government managers, and the historical reluctance of agencies to share power, it would seem more realistic to consider cooperation a goal to be sought through co-management rather than as something initially inherent to it.

As emphasized in the preceding chapter, this thesis examines co-management in the context of the two systems of renewable resource management that are present in the North. It is interesting that not all researchers have considered co-management from this perspective. However, I argue that analysis in this case study can not preclude a consideration of self-regulation by Inuvialuit harvesting communities. Native people in the North expect that their participation on co-management bodies will extend to the incorporation of their traditional knowledge and conservation practices as well as their concerns and aspirations about wildlife and fisheries (Interviews with several Inuvialuit harvesters; Bourque, 1986, 1987; Carpenter, 1987; Ernerk, 1987; Usher, 1986A).

4.2 Defining Co-Management - Goals and Functions

The following definition of co-management is derived from several literature sources (these are referenced) and my review of the co-management regimes listed in Table 4.1. It is important to note that this definition must be placed in the context of a constantly evolving institution and is therefore more of a description of where co-management is at this point in time. Not every situation where traditional resource users and government authorities work jointly on one or more aspects of wildlife and fisheries management can be described as co-management. In fact, an important element of co-management regimes is the formal nature of agreements

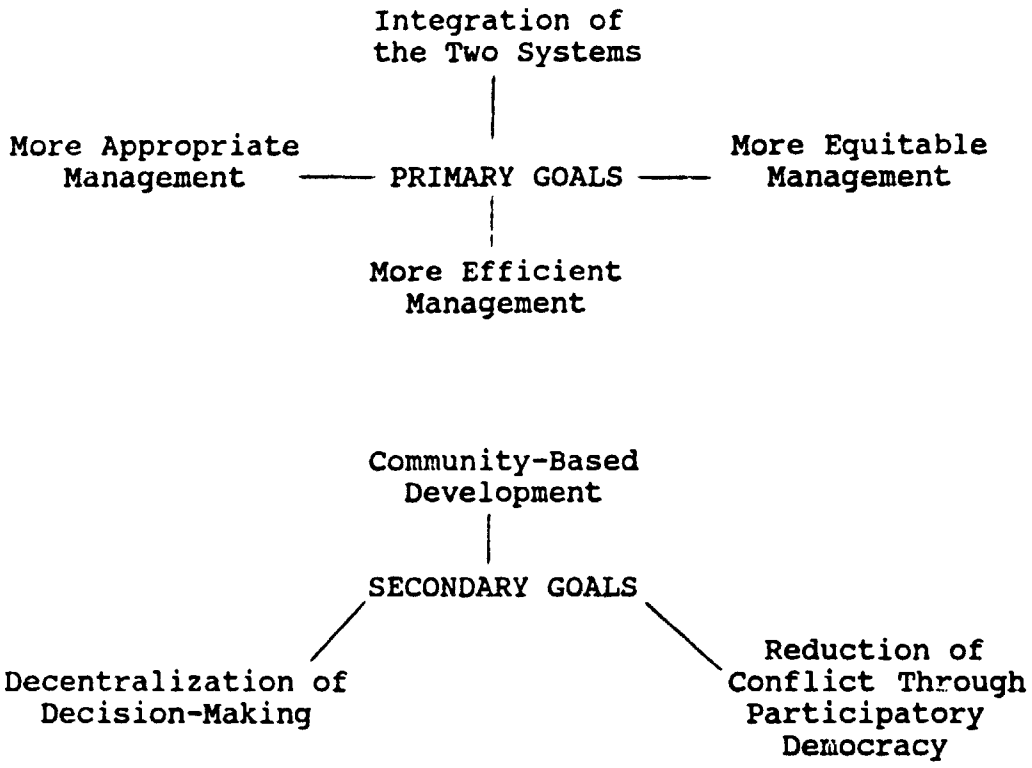
between the two actors - outlining participation, structure, process, and responsibilities - that effect their establishment. More specifically, Feit defines co-management as a

> **working arrangement** between state-mandated agents and individuals or groups of wildlife users who themselves have a role in managing the resources ... Co-management may involve various linkages with self-management systems, or the resource-users who participate in co-management may be individuals whose mandate and authority does not derive from local institutions, but from the appointment to the co-management body itself. (my emphasis) (Feit, 1988A:75)

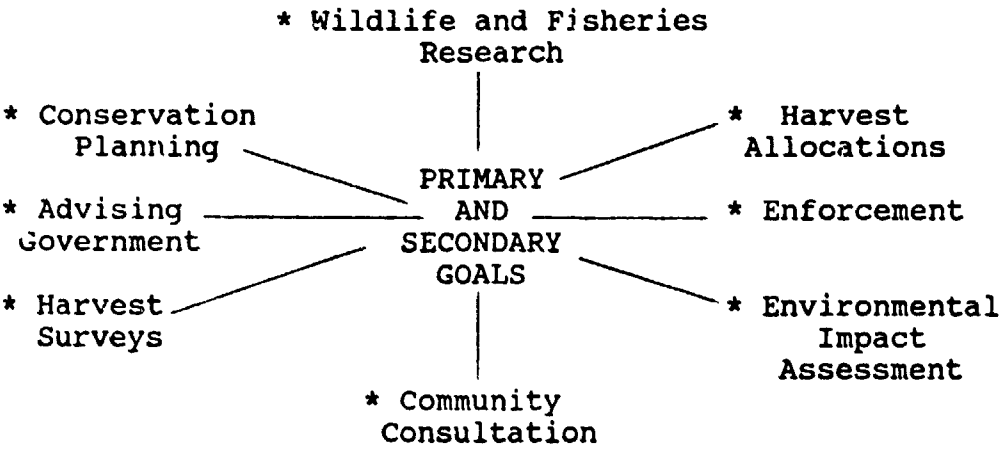
In a review of fisheries co-management regimes throughout North America, Pinkerton's (1989A) volume also indicates that co-management can refer to joint management agreements between government authorities and native, as well as non-native, harvesters of wildlife and fisheries. In the North American North, however, co-management agreements, without exception, have been concluded only with native peoples. For further clarification, I have established a criterium for the purposes of this thesis that at least half of the membership of a co-management body must be native or native-appointed. Thus, any renewable resource management body with less than equal native representation -and there are some - is not a co-management structure, although it may perform some of the same functions.

Figure 4.1 summarizes the general goals and functions of co-management, as specified by Pinkerton (1989B) and a number of other researchers. The emergence of co-management arrangements in the North suggests a growing recognition that

FIGURE 4.1: Goals and Functions of Co-Management



FUNCTIONS:



N.B. The goals and functions listed in this table will likely change as co-management continues to evolve.

SOURCES: Pinkerton, 1989B and others

the prevailing state-based system can not effectively manage resources for sustainability on its own, nor should it do so without the participation of those people with the strongest link to the land. Thus, the overall goals pursued by either or both actors through co-management are a) more appropriate, b) more efficient, and c) more equitable management of wildlife and fisheries (ibid:5). I advocate that an additional goal central to co-management, and one that is closely linked to equity, efficiency, and effectiveness in renewable resource management, is the integration of the state-based and indigenous self-regulatory systems. Section 4.3 discusses in more detail a model of co-management that involves the integration of the two systems.

According to Pinkerton, the first three goals are accompanied by, and linked to, three specific secondary goals or processes:

> (1) co-management as a route to community-based development; (2) co-management as a route to decentralizing decisions enough to address problems effectively; and (3) co-management as a mechanism for managing the consent of local fishermen and reducing conflict through a process of participatory democracy. (Government has the benefit of reduced challenge to its authority, because it shares power and responsibility; fishermen have the benefit of increased participation and influence on management decisions.) (Pinkerton, 1989B:5)

Again, each of these secondary goals can, and should, be considered in the context of a model that integrates the two systems.

Co-management regimes, like any other institution, require structure and process in order to fulfil their

mandates. According to Osherenko, co-management regimes should spell out:

> 1) a system of rights and obligations for those interested in the resource; 2) a collection of rules indicating actions that subjects are expected to take under various circumstances; and 3) procedures for making collective decisions affecting the interests of government actors, user organizations, and individual users. (Osherenko, 1988:13)

These three elements provide the basis for defining regime in the context of co-management (ibid:49). The structure and process of a regime will deeply influence the nature of interaction between its native and non-native membership and the way decisions are made. Accordingly, it is critical that native modes of communication, decision-making, and other cultural process-related traits become part of a regime's functioning. The range of concrete tasks that may potentially be undertaken by a co-management regime stems from, and is shaped by, the primary and secondary goals considered above. These functions include, but are not limited to:

* designing, administering and/or monitoring wildlife and fisheries research programs;

* establishing subsistence harvest quotas, regulating commercial activities, and making other harvest allocation decisions (these may take the form of recommendations to government ministers);

* enforcement of regulations;[12]

* formulating and recommending broad-based policies and specific regulation changes to appropriate ministers (this function is universal to all co-management regimes);

* the review and/or provision of recommendations/advice on any matter of wildlife or fisheries management, including new or existing legislation and inter-territorial or international issues, referred to it by government(s);

* preparation and application of conservation plans;

* participation in, and implementation of species and habitat enhancement and protective measures;

* participation in park management plans;

* assessment of non-renewable resource development proposals;

* cooperation with other co-management regimes;

* responding to community and/or harvesters' organizations' requests for information, action on particular issues, or research on an area's fisheries potential;

* conducting harvest surveys;

* and consulting with communities and their harvesters' organizations on a regular basis on all aspects of its

---

[12] Enforcement should be shared by the co-management body and the user community or devolved to the community, with assistance provided by the co-management body.

mandate (Indian and Northern Affairs, 1985; Feit, 1988A; Indian and Northern Affairs Canada, 1988; Osherenko, 1988; Berkes, 1989C; Pinkerton, 1989B).

This list will likely expand as the role of co-management becomes more clear, and existing, as well as newly emerging, regimes assert their presence in the North. The few detailed studies of co-management have demonstrated that co-management regimes do not always assume these functions, nor are they always successful at those they undertake. However, the former, which Pinkerton (1989B:5-6) refers to as "incomplete" regimes, are not necessarily static. While regimes can, and do fail, others continue to evolve and move towards more comprehensive co-management (ibid:6). Both provide important lessons and suggest necessary characteristics for successful co-management.

In larger regimes, co-management bodies may act as a link between local hunting and trapping organizations and territorial and federal wildlife and fisheries agencies (this has been the case with the IFA regime). In such instances, subsistence and commercial harvesting quotas should be allocated at the local level by community harvesters' organizations. Similarly, full community participation should be an integral part of research efforts, conservation planning, gathering and analysis of harvesting data, calculation of harvesting quotas, and any enforcement of regulations that takes place.

The jurisdiction of co-management regimes is typically confined to a region with specific boundaries, such as those of a land claim settlement or a national park. In only a few instances do these boundaries reflect ecological considerations. This has usually been the case where a wildlife population-specific co-management body has been established (for example, the Beverly-Kaminuriak Caribou Management Board). When the jurisdiction of a regime crosses political boundaries, the participation of two or more governments is necessary.

Co-management bodies are products of the state to the extent that their authority, political influence, and decision-making power within the renewable resource management framework must be legitimated by the state. What is less clear is how a co-management regime is informed by indigenous self-regulation and its native members, and how representative it is of the large number of harvesters who have no direct role (Usher, 1986A:127-128).

4.3 A Model of Co-Management - An Equal Role for Indigenous Self-Regulation

> With so much empirical evidence now suggesting that traditionally-based local-level management can often be effective, and with an equally large literature suggesting that many non-local state-management systems are both costly and often ineffective, why is more effort not directed to re-establishing the conditions whereby local-level management systems can be made to work? (Freeman, 1989A:92)

In this section, I describe and advocate a model of co-

management that builds upon themes currently being addressed by some researchers, notably Berkes (1981A; 1988), Feit (1988A; 1989), Freeman (1985; 1989A; 1989B), and Usher (1986A; 1987). I believe that co-management does, and should, imply more than native participation in decision-making for renewable resource management, more than the insertion of hunters and trappers in the existing institutional framework. Co-management regimes must fully incorporate indigenous self-regulatory institutions (Berkes and Feeny, 1990:51). Throughout, I have asserted that if conservation measures are to be successful in the Canadian North, both state-based resource management and self-management practices must be legitimized and be accorded an equal role. Thus, the goal of co-management in this context is an integration of the two systems of renewable resource management, where each is respected and validated. As Colorado (1988:49) indicates, '"Integration" refers to a blending ... not the domination or extension of ideological control by one culture's science.' Figure 4.2 below, illustrates a continuum, conceptualized for the purposes of this thesis, along which co-management regimes can be located on the basis of several key criteria I both adapted from other researchers and developed myself.[13]

---

[13] This conceptual description of co-management is similar, although not identical to, Arnstein's (1969) "ladder of citizen participation," where each rung of the ladder represents a higher degree of power redistribution between managers and citizens.

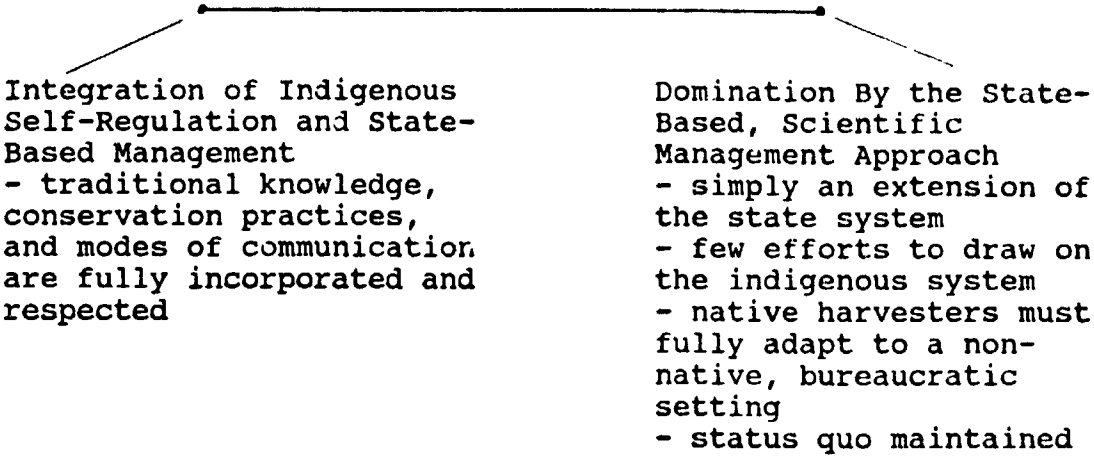


FIGURE 4.2: A Continuum of Co-Management Arrangements

These criteria include the level of authority and political influence wielded, the degree to which governmental members acknowledge, validate, and integrate indigenous self-regulatory practices, and efforts to redress barriers that exclude native people from an equal role. (These criteria will be discussed further in Chapter 5.) For instance, I am arguing that a structure that represented a departure from strictly status quo, science-based decision-making and process would fall towards the left-side of the continuum. On the other hand, it is suggested that one that conformed to the model of co-management set out in the federal government's Comprehensive Land Claims Policy (refer to Indian and Northern Affairs Canada, 1987) would fall towards the right side of the continuum.

Berkes (1981A:166) describes three forms of co-management, or "hybrids," which lead to a combination of the

two systems. Two of these are inadequate, he argues, because they do not provide native people with a meaningful and equal role, nor do they rectify power imbalances. In the first, traditional users participate solely in scientific studies. In the second, government managers establish regulations and quotas, but defer enforcement and allocation to the local level. Thus there is some inclusion of traditional knowledge and experience, but its role is minimized and the state-based approach still dominates. The hybrid approach advocated by Berkes (1981A:166) coincides with the left-end of the continuum. It is an arrangement "which strives to combine self-regulation with regulation from the outside, and scientific resource management with control at the local level" (ibid). This is echoed by Usher who asserts that co-management must aspire to develop

> innovative institutions, arrangements, and practices that genuinely incorporate the strengths of the two management systems and provide effective bridges between them. (Usher, 1986B:78-79)

How many co-management regimes to-date have fully integrated state-based management and indigenous self-regulation? It appears that the model conceptualized and advocated in this thesis has yet to be implemented or tested through existing co-management structures. A review of the co-management regimes listed in the following section, including the IFA regime, demonstrates that many can be located at, or near, the right end of the continuum, although all actively incorporate the knowledge of native participants,

at least in some instances, and several have served to strengthen local-level management practices. That this is happening is perhaps a sign that the model discussed here is not an impossible goal. Section 4.4 examines more closely the practical experience of two of the oldest co-management regimes operating in the Canadian North.

4.4 The Co-Management Experience in the North American North

My research has identified eleven co-management regimes operating in the North American North, all but one having been implemented since 1982 (refer to Table 4.1). These range from single-body structures devoted to management of a particular species to multi-body structures with responsibility for environmental impact assessment and land-use planning, as well as wildlife and fisheries management. Not included in Table 4.1 are the two regimes, which will adhere to the latter pattern, to be established following the final settlement of land claims by the Council of Yukon Indians and the Tungavik Federation of Nunavut (TFN) (the organization representing central and eastern Arctic Inuit). Nor does it include the few, smaller co-management bodies in southern Canada, such as the newly formed Temagami joint stewardship council, half of whose membership will be representatives of the Teme-Augama Anishnabai Indian Band (Eggerston, 1990:A5). The regimes listed in Table 4.1 have experienced varying degrees of success in achieving the goals outlined in Section 4.2.

TABLE 4.1: Co-Management Regimes Operating in the North American Arctic and Sub-Arctic - Canadian, American, and Bilateral

Location	Regime (Year of Implementation)	Literature Sources
NWT/Yukon	Inuvialuit Renewable Resource Committees (1985)	Indian and Northern Affairs, 1985; Delury, 1986; Doubleday, 1989
NWT/Yukon	Porcupine Caribou Management Board (1986)	Osherenko, 1988:14
NWT/Manitoba/ Saskatchewan	Beverly-Kaminuriak Caribou Management Board (1982)	Monaghan, 1984; Osherenko, 1988; any issue of Caribou News
Alberta/NWT	Wood Buffalo National Park (1986)	East, 1986; Waquan, 1986
Quebec	Hunting, Fishing, and Trapping Coordinating Committee (1975); and related co-management sub-agreements	Berkes, 1981A; Berkes, 1982; Feit,1986; Osherenko, 1988; Jacobs, 1988:56-57; Berkes, 1989C; Berkes and Feeny, 1990
Alaska, USA	Co-Management of Bowhead Whales (1981)	Osherenko, 1988:13; Freeman, 1989B
Alaska, USA	Co-Management of Pacific Walrus (1984)	Osherenko, 1988:14; Langdon, 1989
Alaska, USA	Yukon-Kuskokwim Delta Goose Management Plan (1984)	Osherenko, 1988; Blanchard, 1987
Alaska, USA	Subsistence Resource Commissions (1980)	Caulfield, 1988
NWT/Yukon/ Alaska	International Porcupine Caribou Management Board (1987)	Osherenko, 1988:14

For instance, Usher (1986A:128) and Freeman (1989B) have suggested that the arrangement in which the Alaska Whaling Commission participates, exemplifies an effective co-management regime because of the strong role of traditional management practices and the high level of native control. The James Bay and Northern Quebec Agreement co-management regime, on the other hand, has experienced difficulties overcoming barriers to constructive native-non-native interaction and has failed to fulfil some of its mandated functions.

During research I decided it would be uselful to examine in more detail two older, but different, co-management regimes - one that has experienced relative success, the Beverly-Kaminuriak Barren Ground Caribou Management Board, and one that has experienced more mixed results, the Hunting, Fishing, and Trapping Coordinating Committee under the James Bay and Northern Quebec Agreement. These case studies will be referred to in Chapters 6 and 7 in the analysis of the IFA co-management regime for purposes of comparison. Because there is only a limited number of co-management regimes currently in place, it is important to consider the experience and history of those that have been functioning for a number of years. In addition, a review of these two co-management regimes provided some insights into criteria that need to be considered in the evaluation of co-management, generally.

4.4.1 The Beverly and Kaminuriak Caribou Management Board

After several decades of concern about the declining numbers of the Beverly and Kaminuriak Caribou Herds, which occupy northern Manitoba and Saskatchewan and much of the Keewatin District of the NWT, Indian, Metis, and Inuit harvesters and the governments of Canada, the NWT, Saskatchewan, and Manitoba signed an agreement in 1982 to jointly manage both herds (Monaghan, 1984; Osherenko, 1988). Osherenko (1988:17) notes that the Caribou Management Board (CMB) has often been pointed to as an example of a successful co-management regime (for instance, refer to Canadian Wildlife Service, 1989:7; Freeman, 1985:270; Marshall, 1986:27-28). There are number of reasons for this perception. The CMB is perhaps the only existing co-management structure in which native people comprise the majority of the membership - there are five government managers and eight harvester representatives. In addition, the CMB's jurisdiction extends throughout the range and habitat of both herds and is not defined by political boundaries (Osherenko, 1988:15).

Subsequent to the agreement, the CMB, with the use of improved population survey techniques, learned that the herds were stable and growing in size (ibid:18). It therefore turned its efforts to include long-term, pro-active management practices, such as the preparation of habitat and calving-grounds protection strategies, development of education programs, publication of a bi-monthly newspaper distributed

to all user communities, and preparation of a management plan (Canadian Wildlife Service, 1989:7; Monaghan, 1984:424-425; Osherenko, 1988:18-19). The board has experienced reasonable continuity of membership, and decision-making, wherever possible, is through consensus process, reflective of native cultural values. According to Osherenko (1988:20), decision-making has not been characterized by divisiveness or confrontations between native user group representatives and government managers.

> The usual approach of designating a standing technical committee to support the board in the role of a senior management committee has not been followed in this instance. Both user and agency representatives expressed concern that the technical group would be dominated by government personnel, further aggravating the gulf between technical advisor and user perspectives. (Monaghan, 1984:424)

The success of the CMB may reflect the fact that it has yet to be tested by a crisis that a sudden decline in the herds' populations would cause (Osherenko, 1988:20). Similar to other co-management regimes, the CMB is an advisory body in that it recommends action and policy to ministers who hold ultimate decision-making authority. To-date, public authorities have implemented many recommendations, but have failed to respond to the board's advice for needed protection of the herds' habitat (ibid:23). There is some dissatisfaction among native groups, such as the Keewatin Wildlife Federation, with the CMB despite its efforts to forge strong links with the user communities (Curley, 1989:4). Generally, though, the regime appears to have fostered a

spirit of cooperation between government managers and traditional user groups and management of the two herds has been enhanced.

Unfortunately, no conclusions can be made about the degree to which the indigenous self-regulatory and state-based management systems may have been integrated within this regime. Unlike the following case study, literature summarizing research on the CMB has not focused on this question. That is perhaps why the co-management regime implemented under the James Bay and Northern Quebec Agreement has been subjected to a more critical analysis.

4.4.2 The James Bay and Northern Quebec Agreement Co-Management Regime

The co-management regime established under the James Bay and Northern Quebec Agreement (JBNQA) has received mixed judgement from both native and government actors, as well as external observers, concerning its effectiveness to-date. The majority of information about the experience of the JBNQA co-management regime - the oldest example of co-management in Canada - comes from Feit (1986; 1988B; 1989) and Berkes (1989C; Berkes and Feeney, 1990; Drolet et al, 1987), who in the course of their research documenting indigenous self-regulatory practices among the James Bay Cree, have also analyzed the implementation of the wildlife and hunting provisions (including co-management) of the Agreement. In addition, Osherenko (1988) has examined a case study where

some of the problems experienced by the regime have been overcome.

The JBNQA is actually two comprehensive land claim settlements parcelled together as one: the native signatories are the Cree of James Bay and the Inuit of Northern Quebec (Berkes, 1989:190).[14] A key requirement of the JBNQA, the Hunting, Fishing, and Trapping Coordinating Committee is comprised of 16 members equally divided between native people and government (Drolet et al, 1987:389-390). Following the signing of the Northeastern Quebec Agreement in 1978, native representation on the Committee altered with the addition of two Naskapi Cree members, although the proportion of native representation remained at half of the membership (Osherenko, 1988:26). In contrast to the preceding case study, the mandate of the Coordinating Committee is broad and extends far beyond jurisdiction for one single wildlife or fisheries species. Clearly, this is one of the reasons for the problems it has experienced. Generally, the Coordinating Committee acts as an advisory body submitting recommendations to appropriate federal or provincial government ministers on any matter affecting wildlife or fisheries, including regulations, impact assessment of development proposals, research, and harvesting quotas (Drolet et al, 1987:390). In addition, the

---

[14] In this discussion it is important to consider the context under which the JBNQA was negotiated: "the Cree and Inuit signed the Agreement under the pressure of the construction schedule of the James Bay hydro-electric project" (Berkes, 1989C:191).

agreement does provide some recognition and legitimization of the Cree fishing-hunting territories system, a traditional self-management institution (Berkes, 1989C:192; Feit, 1988B:75).

In fulfilling its wide range of responsibilities, the Coordinating Committee has encountered many obstacles (Berkes, 1989C); some of these are summarized in Table 4.2. Many of these problems may be attributed to the reluctance of government managers to share power, the bureaucratic structure imposed on the Committee, the advisory-only role of the Committee, and cultural and language barriers (Berkes, 1989C). Two examples are indicative. Originally, Inuit representation on the Committee was comprised of active hunters and fishers, who brought with them considerable knowledge of the issues and a keen awareness of their communities' concerns. Language barriers and the bureaucratic setting of meetings soon led to a change in representation, with Inuit representatives being those individuals more accustomed to non-native ways and interaction (Osherenko, 1988:26).

> The Coordinating Committee, as the main co-management institution, has the disadvantage of being a white man's [sic] institution run by white man's [sic] rules. This effectively prevents the traditional fishermen-hunters from participating, and limits representation to articulate, southern-educated people who are comfortable in committee settings. (Berkes, 1989C:195)

Despite the establishment of the co-management regime and requests by the Cree and Inuit for needed wildlife and fisheries research after the settlement of the JBNQA, little

TABLE 4.2: Problems Experienced by the Co-Management Hunting, Fishing, and Trapping Coordinating Committee Under the JBNQA

* Interpretation of JBNQA takes too long: Committee cannot get down to business
* Many agenda items persist in successive meetings without solution
* Some members bring their "political agendas" with them
* Committee has no provisions to cover meeting expenses
* Committee has no research funds (except for the harvesting study)
* Committee has no mandate to make decisions
* Many recommendations are rejected by the minister without satisfactory explanation
* The Quebec Ministry of Recreation, Game and Fish is seen as more responsive to recreational interests
* Lack of government incentives to see Committee succeed
* Government representation tends to be low level
* Committee communication difficult because of four languages (Cree, Inuit, French, and English)
* Meeting format alienates traditional hunters-fishermen
* Committee too large, too cumbersome
* Travel distances too great for Native participants
* Lack of good biological data to manage populations
* Lack of operational definition of the conservation principle
* Longer-term issues always put on the "back-burner"

SOURCE: Berkes, 1989C:203

such work was forthcoming from the provincial government.

> It is ironic, after the MLCP [Ministry of Recreation, Game and Fish] assertions during negotiations that effective wildlife management required technical skills only available to governments, that during the first half-dozen years after the signing of the Agreement most of the new management-oriented research should have been done by and funded by native organizations [the Cree Regional Authority and the Inuit Makivik Corporation]. (Feit, 1988B:82)

There have been instances where traditional knowledge and conservation practices have been fully incorporated in management strategies and decision-making. During the mid-1980's, when Inuit harvesters and government managers became concerned about possible declines in regional beluga whale stocks, many of the problems experienced by the Coordinating Committee were overcome by a supplementary, informal co-management arrangement. In fact, Osherenko (1988:31) suggests that this informal arrangement "has proven more efficient than the formal mechanism of the co-ordinating committee." Similar successes have occurred on co-management efforts for the common eider (a duck species) and caribou (Drolet et al, 1987). The full support and involvement of Makivik in eider research ensured the integration of Inuit knowledge with scientific research. The cooperative efforts on caribou management again combined native (Chisasibi Cree) and scientific knowledge and demonstrated that "local authority (hunting leaders, knowledgable elders, the trappers association and the band council) can be effective in regulating and controlling the hunt" (Drolet et al, 1987:396).

In summary, while the Coordinating Committee is still experiencing a multitude of problems almost 15 years after its implementation, there seems to be no doubt that it has, in general, increased Cree and Inuit participation in wildlife and fisheries management in the region (Berkes and Feeny, 1990:53; Feit, 1989). Since the co-management regime began operating, most wildlife populations have remained stable or have increased, fulfilling the conservation goals of the JBNQA (Berkes and Feeny, 1990:53). Those species that have decreased in number - primarily beaver and some species of fish - have been seriously affected by the extensive flooding associated with the hydro-electric power development. As a bridge between state-based management and the Cree and Inuit traditional systems the Coordinating Committee has not been successful, although some steps toward integration have occurred outside the formal regime, or process. In addition, the threat of continued hydro-electric power development in the James Bay region (as part of the massive James Bay II scheme) will impact further on the region's fauna and native subsistence life-styles with their attendant conservation practices; these are problematic issues the Committee can not avoid addressing.

4.5 Concluding Comments

In his analysis of renewable resource management in the North, which differs considerably from one in which only state

institutions are considered, Feit concludes that

> both self-managing and state level managing systems exist, and have a future; and that in a real and practical sense they are now inseparably interlinked, and in many ways they are necessary to each other. (Feit, 1988A:85)

Accordingly, this alternative perspective does not argue for the replacement of state-based management by indigenous self-regulation. It suggests the implementation of new institutions - co-management arrangements - that will continue to apply the practical value of scientific, state-based management, while incorporating, strengthening, and legitimizing the self-regulatory system (Feit, 1988A:84; Freeman, 1989A; Osherenko and Young, 1989).

The experience of wildlife and fisheries co-management regimes to-date has demonstrated that joint management by native harvesters and government authorities can significantly improve and enhance conservation efforts and lead to a more sensitive and holistic approach. Native people assert that the full potential of co-management will not be fully realized until regimes accord the traditional knowledge and conservation practices within harvesting communities an equal role alongside state-based management methods.

Co-management regimes, by definition, do not operate in an institutional vacuum. They operate, or are supposed to operate, as newly integral parts of the framework for resource management in their area of jurisdiction. Herein lies a difficult question upon consideration of the model of co-

management advocated in this thesis. Co-management structures that serve to integrate the two systems of resource management present in the North implies considerable change within the state-based system because co-management regimes and the state-based system (which provides representative participants in co-management) are clearly not mutually exclusive. Co-management that reflects the integrative model requires at the very least, an acceptance of indigenous self-regulation by the state. Where exactly the source of this change will come from is uncertain, but co-management will likely act as a major catalyst if change does occur.

CHAPTER 5

EVALUATING CO-MANAGEMENT REGIMES - SOME SUGGESTED CRITERIA

5.1 Introduction - Why evaluate co-management regimes?

Given the recent evolution of co-management, most studies that have been conducted have often only been able to review and analyze the first several years or less of functioning, and provide general observations. A large number of authors has suggested certain preconditions that lead to, or certain characteristics that reflect, successful co-management, but there is a need to collate and systematize these, and further develop a framework of criteria. The James Bay and Northern Quebec Agreement, Beverly and Kaminuriak caribou, and several fisheries co-management regimes are perhaps the only regimes for which some detailed analysis has occurred.

This thesis reflects my belief that researchers, from whatever disciplinary background they approach the study of co-management, must now begin to expand this inquiry. Much of the literature todate has confined its scope to simply conceptualizing co-management and recommending its implementation as a resolution of conflicts between the state-based system and indigenous self-regulatory systems of resource management. Co-management regimes are implemented in order to achieve specific goals and objectives, such as conservation of wildlife and fisheries and a clear avenue for native participation in management decision-making.

Clearly, an evaluative framework is required in order to gauge the degree to which these goals and objectives are accomplished and to adjudicate the general effectiveness of co-management. The purpose of such a framework is to identify and assist ineffective regimes and enhance those that are working well.

The fact that two extensive co-management regimes covering vast tracts of land in the territories, in addition to the regime present in the Western Arctic, may soon be implemented with the final settlement of the Council of Yukon Indians and Tungavik Federation of Nunavut land claims, places some urgency on this research. The participants in these, and other future regimes, could learn a great deal from the experience - both positive and negative - of co-management regimes currently operating in the North American North. Admittedly, every co-management structure operates under a distinct set of conditions and circumstances, but there is no need for **all** past failures and problems to repeat themselves.

> The real question for the future ... is not whether co-management regimes will increase in number and scope but whether the organizations created to implement them will work effectively. (Osherenko, 1988:44)

Therefore, this chapter outlines criteria I compiled and developed in order to evaluate the efficacy of the Inuvialuit Final Agreement (IFA) co-management regime and the degree to which it has led to direct and meaningful participation of Inuvialuit people in renewable resource management, and assess its potential for bridging the gap between the two systems in

the Western Arctic. In addition, the Inuvialuit fully and irreversibly surrendered their aboriginal title in the Western Arctic in return, in part, for a commitment by the federal and territorial governments for the establishment and operation of wildlife, fisheries, and environmental impact assessment co-management bodies. It is important, therefore, to begin evaluating the experience of this regime.

The reader should be aware that some of these criteria must be considered in the context of the model of co-management presented in Chapter 4. Thus, they may require or address characteristics, functions, and aspects lacking in most or all co-management regimes currently operating in the North American North. Also, the criteria included here do not encompass all factors that might be considered in a fully comprehensive evaluation. This is because their development is an inductive process in the sense that it involved the examination of a few examples of co-management to produce a general evaluative framework for studying the remainder (Pinkerton, 1989B:6-7). As such, the criteria represent an important first step that should be tested and built upon in further research efforts on co-management. In addition, they will be made available, along with the results of this research, to the co-management bodies under the IFA.

5.2 Successful Co-Management - What criteria need to be considered?

The following criteria reflect much of the discussion

about co-management included in the previous chapter. The literature review carried out for the purposes of this thesis, in addition to my own research and conceptualizing about co-management, led to a division of the criteria into three general areas of focus:

- co-management as an institutional component of the renewable resource management framework;
- overcoming barriers to meaningful native participation;
- and the integration of the two systems of resource management in the North.

Not surprisingly, many of the criteria require change within the state-based system, given its historical exclusion on native people from decision-making in renewable resource management. There is considerable overlap in some of the criteria because these areas are interrelated. However, I considered it important to organize and categorize this evaluative framework in order to more easily facilitate their application in a case study such as this. A co-management regime can, and should, be studied in several contexts: In a practical sense, what is the mandate of the co-management body and is it fulfilling that mandate? What power or decision-making authority does the body have? What strategies are being employed to overcome the language and socio-cultural barriers to a meaningful native role in co-management? At a more theoretical level, is the co-management body adhering to,

or moving towards the model advocated in this thesis, or does it represent just a slight compromise on the part of government managers in providing native people an advisory role in renewable resource management?

Literature sources for compiled criteria are referenced. Most significant are recent studies by Pinkerton (1989B), who lists specific propositions that tend to characterize successful fisheries co-management, Canadian Arctic Resources Committee (1988B), Caulfield (1988), Ernerk (1987), Gallagher (1988), Kelly (1983), Osherenko (1988), and Usher (1986A; 1986B; 1987). Each of these authors emphasize that it is important to consider which "preconditions are favourable to developing co-management and which arrangements are most favourable for maintaining it" (Pinkerton, 1989B:26). Other criteria mentioned below are those I generated myself following a review of the literature about definitions of co-management, research about existing co-management regimes, and the development of the model in Section 4.3. Priorization of the criteria was not attempted as many of them can be considered of equal importance in an evaluation.

5.2.1 Institutional Analysis of Co-Management Regimes

With respect to an institutional analysis of co-management regimes, I refer to the mandate, structure, and functioning of co-management and its role within existing renewable resource management institutions. The following

criteria address key practical preconditions to successful co-management which are identified in the literature or which I have identified during the course of my research:

a) Co-management bodies must have access to the funding that is needed for the fulfilment of their mandates (Canadian Arctic Resources Committee, 1988B:54; Caulfield, 1988:55). Funding must also be available for the full participation of the membership, particularly their native representation (Kelly, 1983:132).

b) Successful co-management regimes tend to arise from agreements that are formalized, legal, and multi-year (Pinkerton, 1989B:27).

c) Co-management is more efficient in areas where the network of native communities is relatively small, communities maintain close ties, and all communities are well-represented by effective umbrella organizations (Pinkerton, 1989B:27-28).

d) With reference to the Beverly-Kaminuriak Caribou Management Board, Monaghan (1984:425) and Osherenko (1988:21) note that continuity and commitment of the membership may be a major factor in its success.

e) The success of a co-management regime is dependent upon the degree of cooperation between its members, which in turn is dependent upon, among other factors, the willingness of the membership, particularly the government managers, to forego vote-taking in favour of

a consensual mode of decision-making (a process characteristic of northern native cultures (Usher, 1986A:3)). Decisions reached by consensus will tend to ensure that the views of each actor are taken into consideration and will present observers, government agencies, and harvesters with an impression of an unified, cooperative structure. Such decisions may also be more readily accepted by the latter three groups.

f) Co-management should enhance communication, cooperation, and a sense of collectiveness among native communities participating in a co-management regime (Pinkerton, 1989B:29).

g) The functions of a co-management regime should include, but may not be limited to, exclusive responsibility, or participation in, the following: species-specific research, harvesting data collection (compatible with native values), allocation of harvesting quotas, enforcement of regulations, preparation and application of species specific and/or regional and community conservation plans, direct community consultation, policy-making, environmental impact assessment, and advising government on legislation and international issues. In addition, criteria in Section 5.2.3 emphasize that co-management must extend the scope of renewable resource management to incorporate elements of the indigenous system.

h) In a direct reference to the IFA co-management regime, Pinkerton observes that

> co-management operates best when decisions about harvest levels, regulations, and allocations are made on the same level (not centralized away from) as the level on which information is collected on technical terms such as the health of the stocks. Pinkerton (1989B:28)

This requires that co-management bodies share responsibility for management activities with local-level harvesters' organizations. When co-management bodies fail to further decentralize decision-making to the communities, they risk perpetuating a hierarchical system where harvesters continue to occupy the bottom rung.

i) For a co-management regime to be successful it must have a direct role and influence on decision-making by higher-level government managers. To not have such authority and influence would seem to contradict one of the fundamental purposes of co-management. This suggests that a co-management regime must become a part of the framework for renewable resource management rather than an addition to it. To date, however, most co-management regimes have received no more than advisory status, although most land claim settlement-based regimes require government decision-makers to give serious consideration to their recommendations. It is important to measure, therefore, how often ministers or government officials use their discretion to reject or modify the recommendations of co-management bodies, and to study

their reasons for doing so.

j) Co-management regimes will tend to be both more successful and equitable when they enhance the role of native people in the allocation of renewable resources **and** in the evaluation of non-renewable resource development, particularly where development will impact on subsistence and commercial harvesting activities (Canadian Arctic Resources Committee, 1988B:43 and 54; Pinkerton, 1989B:29). Co-management bodies with mandates to conduct environmental impact assessments of development such as hydrocarbon extraction and transportation, should become an integral part of all regimes. Feit (1988A:84) suggests that the mandate of co-management bodies should include the regulation of non-native consumptive and non-consumptive users of wildlife and fisheries if conservation plans are to be successful.

k) The efforts of a co-management body will tend to be undermined if government agencies with jurisdiction for wildlife and fisheries ignore or downplay its role. Similarly, where a government agency resists relinquishing some renewable resource management functions to a co-management body after the implementation of a co-management agreement, duplication will result and which may impair the effectiveness of the body. Pinkerton suggests that successful co-management

will result "where the government bureaucracy is small and its mandate is fairly regional or local" (1989B:28).

l) Where co-management regimes operate in the same area or have overlapping or adjacent jurisdictions, cooperative arrangements should be made to avoid duplication and to ensure a holistic and mutually-beneficial collective approach.

m) The process for negotiation and preparation of a co-management agreement will affect how the regime is implemented and subsequently operates. Thus, a process in which native negotiators are cast as unequal or are under considerable pressure (for instance, the circumstances under which the JBNQA was settled), will likely result in a flawed co-management regime characterized by power imbalances or other similar problems.

n) An evaluation of co-management should at least consider native property rights to wildlife and fisheries, and the environment that sustains them. While agreements that have created co-management regimes have granted native people renewable resource management and harvesting rights, Usher (1984; 1986A; 1987) asserts that without property rights, native access to, and interests in, wildlife and fisheries can be eroded.

Clearly, a wide range of sometimes disparate factors need to be considered in an evaluation of the practical functioning

of a co-management regime. While priorization of these criteria is difficult, those of most immediate significance relate to the goals of co-management listed in Table 4.1: the degree of cooperation among members, fullfillment of a body's mandate, decentralization of decision-making to the communities, influence on government decision-makers, and a role in environmental impact assessment. In conclusion, it is recognized that this is an incomplete list. As co-management regimes continue to emerge, evolve, and acquire experience, this list of criteria should grow.

5.2.2 Native Participation in Co-Management Regimes

Generally, the nature of the newly developing relationships among the people involved in co-management, the participating native harvesters and government managers, and the level of their commitment and willingness to cooperate, will profoundly shape a regime (Pinkerton, 1989B:29). According to Pinkerton (1989B:29), these new relationships and roles that are created and persist provide the "ultimate test" for successful co-management. While this chapter demonstrates that other factors may be equally important, there is no doubt that the degree of trust, or lack of it, that emerges between the participants of a co-management regime will be a key determinant of its success.

Keith and Neufeld (1988:92-93) emphasize that federal authorities must be prepared to redress the exclusion of

legitimate actors, particularly native peoples, from participation as equals in policy-making, planning, and management. In addition, co-management regimes must make strong efforts to mitigate the sense of powerlessness expressed by many northern native communities following decades of failure by the federal government to provide them with a meaningful role in decision-making affecting the natural resource base (Keith and Neufeld, 1988). Many observers have noted that often, bureaucrats jealously guard their authority, and are unwilling to share it with other agencies or the people whose activities they regulate (Ernerk, 1987:136; Feit, 1988B:87; Osherenko, 1988:44; Morrell, 1989:247; Pinkerton, 1989B:24).

That government participants in co-management must overcome this legacy, and perhaps more problematically, its related history of marginalization and racism, is evident in the following native perspectives on the implementation of co-management agreements:

> More than goodwill is required to translate words of agreement into action. ... Certainly, when Indian people are expected to sit at the same table and plan conservation measures with the same people who earlier were active in suppressing our rights, it is evident that much work has to be done. (Kelly, 1983:132)

> What is so offensive about implementing our [Nunavut Wildlife Management Board] agreement-in-principle? ... I can see no reason except for a lack of political will by government and continuous reluctance to turn over some measure of control to the people most affected by resource-management issues. (Ernerk, 1987:136)

Barriers to native participation must also be addressed

at the board or committee level within co-management regimes. These could stem from linguistic and socio-cultural differences, and/or racist attitudes on the part of participating government managers. In her study of three co-management arrangements in the North American Arctic, Osherenko (1988:41-42) identifies several preconditions for ensuring that "government administrators and indigenous users ... form a partnership in which the user groups gain a sense of ownership and responsibility for the system's success." In other words, Osherenko asserts that native representatives must be full and equal participants, and respected as such. These preconditions are embodied in the following three criteria:

a) Does the co-management regime enjoy "strong support from and a link to the villages" (Osherenko, 1988:42)? Successful co-management requires not only the direct involvement of native harvesters on boards and committees, but also the participation and cooperation of their communities. Co-management bodies must maintain a frequent level of contact with community organizations, as well as the community residents at large, in order to keep harvesters informed and to receive broad-based support. More importantly, co-management bodies must ensure that community needs, aspirations, and realities fully inform their agenda and priorities and their work (Canadian Arctic Resources Committee, 1988B:54). In a

large region, they must be particularly aware of differences between participating native groups and/or the specific circumstances of each community. A board or committee that neglects to incorporate the interests of native harvesters also fails to meet a key goal of co-management. Contact can be maintained through newsletters, community visits, and the direct involvement of residents in activities such as research projects and the preparation of species conservation plans.

b) Full native participation must be an integral part of all key aspects of a co-management regime. Caulfield (1988:55) cites two frequent obstacles that must be dealt with: government managers who are overly protective of broader (often non-native) interests, and the reluctance of governmental participants to share decision-making power. Osherenko (1988:42) stipulates that harvesters "must be granted a decision-making role in shaping and operating the regime from research design to enforcement." Peter Kelly, Regional Vice-Chief for Ontario, Assembly of First Nations, asserts that

> First Nations people must be involved in all aspects of management, from research and planning to policy and law planning. An advisory role for Indian people is simply not enough. (Kelly, 1983:133)

That this involvement must include traditional knowledge and self-regulatory practices is addressed in Section 5.2.3.

c) Where cultural and linguistic barriers to native

participation exist, co-management regimes must recognize these and adopt strategies to overcome them (Stenbaek-Lafone, 1981; Osherenko, 1988:42), or risk disempowering the people they are meant to serve. In a review of "Native Participation in Land Management Planning in Alaska," Gallagher (1988) emphasizes a lack of awareness among government administrators about differences in communication and decision-making styles between native and non-native peoples, and the use of appropriate forums for encouraging native participation. A bureaucratic setting and mode of interaction is not appropriate for co-management meetings, nor does it promote an equal relationship among governmental and native representatives. As co-management regimes become bureaucratized, they tend to become less accountable to the communities (Pinkerton, 1989B:31). With respect to the case study, potential barriers to participation are important given that most meetings are held in Inuvik, most Inuvialuit members have to travel away from their communities, and the language used in meetings is English. (See Mitchell (1979:263), Stenbaek-Lafone (1981), and Reilly (1989) for more information on this issue.)

Usher identifies one further criterion that must be considered in this section:

d) Co-management structures must represent the

collectivity of harvesters, rather than special interest groups within the communities as has sometimes been the case (Interview with Peter Usher, April 21, 1989). Usher, with some pessimism, suggests that the existing trend ... decentralization in the Northwest Territories

> is to devolve some powers to, or at least to gain the participation and involvement of, agencies or individuals who, although either being Native themselves or acting in the Native interest, may not actually represent the interests of harvesters as such, or be able to make binding commitments on their behalf. To the extent that such agencies or individuals are seen by harvesters as having been co-opted by an alien and unacceptable system, non-compliance and non-co-operation will result. Usher (1986B:78)

Generally in the past, native-non-native discussions on renewable resource management issues were in non-native languages and required native people to learn and adapt to non-native ways of communication and decision-making. The criteria discussed in this section suggest that equal representation of native harvesters on co-management bodies is meaningless unless there is also equal participation. Barriers that preclude equal participation can not be ignored or minimized. In the context of the IFA co-management regime, the need for new, non-bureaucratic styles of communication and interaction are discussed in Chapters 7 and 8.

5.2.3 Co-Management - An equal role for indigenous self-regulation?

According to the model of co-management advocated in this thesis (refer to Section 4.3), co-management regimes, and in

particular, their governmental membership, must recognize, respect, and legitimize indigenous self-regulation (Feit, 1988A:85), in addition to native political aspirations, harvesting needs, and culture. I assert throughout this thesis that the experience and knowledge base of native people, and their self-management strategies for the sustainable use of wildlife and fisheries, can make an invaluable contribution to renewable resource management in the North. Indeed, as some would argue, successful conservation of renewable resources is dependent upon a successful integration of the state-based and indigenous systems (Berkes and Feeny, 1990; Canadian Arctic Resources Committee, 1988B:56; Feit, 1988A; Freeman, 1989A; Indigenous Survival International (Canada), 1989; Usher, 1986A; 1987). At a practical level, failure of co-management regimes to incorporate at least some aspects of the indigenous system will impair the process of joint management between native harvesters and government managers.

> The differences between the scientific/technological education of the southern-trained scientist and the more experiential "school of nature" training of the northern user also makes communication difficult. (Stenbaek-Lafon, 1981:198)

On a positive note, government attitudes towards native harvesters have improved in some instances over the past decade. Usher (1987:9) notes: a) that most managers now acknowledge that native people are capable of learning and applying scientific management techniques; and b) that

harvesters routinely compile an invaluable and comprehensive set of empirical data about wildlife and fisheries and their habitat. Usher adds a qualification, however:

> It is not yet generally acknowledged, however, that Native harvesters' culture and experience provide them the tools to integrate and organize those data into an effective management strategy. There remains, therefore, a substantial gulf between the concept of co-management based only on the first two propositions [referred to above], and that based on all three. (Usher, 1987:9)

Given that I advocate a form of co-management that strives to fully integrate the state-based and indigenous self-regulatory systems of resource management, it is crucial to consider tangible measures of the degree to which this goal is achieved. Criteria that address the role of indigenous self-regulation in co-management, derived from my own research and the literature, include:

a) How often does a co-management body fully draw on the knowledge and experience of native members in day-to-day decision-making and activities? (This question is linked to several of the criteria in the preceding section.) For instance, is the knowledge of hunters about caribou migration routes or char run population sizes respected? Similarly, how often do the conservation measures implemented by a co-management body reflect traditional conservation practices rooted in the communities?

b) Another important consideration is the willingness of government participants to broaden their conceptions of what constitutes "legitimate" information gathering

techniques and interpretation to include non-Eurocentric paradigms and traditions. Freeman (1989A) argues that co-management must incorporate native experiential and empirically-based knowledge and move

> away from the highly abstract modelling techniques currently in vogue among managers - techniques that depend upon large inputs of unknown, and often unknowable, data. ... this traditional-based approach is especially significant as it relies upon data and techniques of analysis that local resource users can control and utilize in real time, so as to take locally sanctioned corrective actions with a minimum of delay. (Freeman, 1989A:103)

That there are considerable barriers to this process of integrating two knowledge systems is reflected in the comments of one interviewee, who observed that non-native biologists are often surprised at the intelligence and knowledge of Inuvialuit hunters and trappers (Interview with L. Fabijan, May 14, 1989).

c) Co-management should foster a higher degree of trust between harvesters and government and a "willingness on the part of government to allow a range of self-management responsibilities to be assumed by" local-level native organizations (Pinkerton, 1989B:30).

d) Given the problems and frequent failure of exclusive regulation of harvesters by the state, a co-management regime must strike an equitable balance between enforcement by the regime and enforcement by the communities. At each level, enforcement of quotas and other conservation measures must fully incorporate and

reflect traditional ways.

e) With respect to fisheries co-management, Pinkerton suggests that regimes

> operate more favourably where the mechanisms for conserving and enhancing a fishery can at the same time conserve and enhance the operation of a cultural system. (Pinkerton, 1989B:27)

In other words, a co-management regime that incorporates indigenous self-regulation, as a "cultural system", will serve to promote and reinforce traditional knowledge and conservation practices at the community level.

f) There must be an awareness among all actors that co-management systems can co-opt native harvesters who end up serving the interests of government management at the expense of their communities (refer to criterium (d) in Section 5.2.2). As there must be an awareness that the experience of native harvesters can be subsumed by the rigidity and intolerance of other world views and knowledge bases that often characterize scientific management techniques/methods. The result is the exclusion not only of native interests in wildlife and fisheries, but also the contribution of native knowledge of the environment and traditional conservation practices (Keith and Neufeld, 1988:95).

In summary, a number of researchers have observed that existing co-management regimes have focussed little effort on incorporating local-level wisdom into decision-making. McDonald (1988:70) acknowledges that many co-management bodies

represent an integration of token, limited elements of indigenous self-management into state institutions. Usher (1986B:73) also argues that to-date, co-management has conformed to the state-based model whereby "Native harvesters merely provide data, and the state system continues to do the managing and allocation." In Chapter 7, the IFA co-management regime is considered on the basis of the criteria listed above.

5.3 Summary

The preceding criteria are summarized in Table 5.1 to facilitate easier referral while the reader is considering Chapters 6 and 7, which applies this evaluative framework to the provisions of the IFA for co-management of wildlife and fisheries. Some of the criteria are general in the sense that they refer to the philosophical underpinning of co-management regimes - ie. scope, direction, process, etc. Others will be more useful in facilitating assessment of the structure, operation, and functioning of co-management bodies. The organization of this framework into three broad areas - co-management as an institutional component of the renewable resource management framework; overcoming barriers to meaningful native participation; and the integration of the two systems of resource management in the North - reflects a need to i) identify some of the factors that characterize successful co-management; ii) broaden the analysis of co-

TABLE 5.1: Criteria for the Evaluation of Co-Management Regimes

Institutional Analysis	Meaningful Native Participation	Integration of the Two Systems
* adequate funding	* community contact	* harvesters' knowledge and traditional conservation practices
* formal agreements	* sharing power in management	* managerial respectfulness
* area of jurisdiction	* cultural and language barriers	* level of trust
* continuity of membership	* representing all harvesters	* enforcement by communities
* cooperation among members		* strengthening culture
* enhance ties among communities		* avoiding co-optation
* functions and activities		
* decentralization of decisions		
* direct decision-making role		
* environmental impact assessment		
* duplication of management		
* adjacent co-management regimes		
* negotiation of a co-management agreement		
* property rights		

management regimes to address the role of indigenous self-regulation; and iii) develop a more thorough basis for evaluating co-management.

CHAPTER 6

THE CO-MANAGEMENT PROVISIONS OF THE INUVIALUIT FINAL AGREEMENT

6.1 Introduction

The Inuvialuit Final Agreement (IFA) is an extremely complex document, linking many different themes and goals. The co-management provisions can not be considered in isolation. Therefore, the other provisions of the settlement are briefly reviewed, including extinguishment of aboriginal title, land grants, financial compensation, economic development, wildlife harvesting rights, and environmental protection measures. The focus of this chapter, however, is a general overview of the IFA co-management regime and more specific discussions about the Wildlife Management Advisory Council (WMAC) (NWT) and the Fisheries Joint Management Committee (FJMC), their functions and roles, differences between the two bodies, and how they fit into the overall framework for renewable resource management in the Western Arctic. The primary purpose here is to determine whether the opportunities presented by the co-management regime, and in particular the FJMC and the WMAC (NWT), have led to increased and more meaningful Inuvialuit participation in renewable resource management. Accordingly, analysis will incorporate those criteria listed in Sections 5.2.1, and to a lesser degree, 5.2.2 (see also Table 5.1). Hereafter, references to the IFA will exclude the bibliographic citation (ie. Indian

and Northern Affairs, 1985) and refer only to the relevant section of the agreement (ie. sec. 7(102)(a)(i)) for the sake of brevity.

6.2 Background to the Settlement

The Inuvialuit Final Agreement (IFA), signed and legislated in June, 1984, is the third comprehensive land claim settlement between the federal government and an aboriginal organization, and was considered a model by the federal government for the two other claims currently at or near the agreement-in-principle stage of negotiation in the NWT and Yukon (Gottesman, 1986). Comprehensive claims are negotiated on the basis of unextinguished aboriginal rights to lands traditionally used and occupied. In 1973, "the tradition of treaty-making was renewed in the form of a comprehensive land claims policy" (Indian and Northern Affairs Canada, 1987:5) by the Department of Indian Affairs and Northern Development after a precedent-setting Supreme Court case in British Columbia strengthened the legal conception of aboriginal rights (Hunt, 1978:5).[1]

---

[1] It is not the purpose here to define "aboriginal rights," or the more problematic term "aboriginal title." However, with reference to the clearly articulated native perspective, Gottesman (1986:246-247) states that the inalienable connection of Indians, Metis, and Inuit to the environment - which they express as aboriginal title - "is the source of aboriginal rights," such as self-government, proprietary hunting, fishing, and trapping rights on traditional lands, and preservation of language and culture.

The Western Arctic, in addition to most of the NWT, Yukon, British Columbia, Labrador, and Northern Quebec, had not been covered by a treaty during the treaty-making process which ended in the early-1920s (Cassidy and Bish, 1989:13-14). Initially, the Inuvialuit, represented through the Committee for Original Peoples' Entitlement (COPE)[2], were part of the overall claim of the Inuit Tapirisat of Canada (ITC) which covered the traditional lands of the Inuit throughout the Canadian Arctic (Whittington, 1985A:86). Subsequently, COPE "submitted its own claim in May 1977 in light of anticipated imminent pipeline construction in its area of interest" (Office of Native Claims, 1984:96).

The federal government and COPE signed an agreement-in-principle in October, 1978 on many provisions of the claim and reached agreement the following year on the selection of 85% of lands for which the Inuvialuit would hold surface rights (Office of Native Claims, 1984:96). Following the breakdown and suspension of further negotiations over the next several years, the two sides resumed formal discussions in January, 1983. The chief negotiator for COPE was Robert Delury, while the federal government was represented by Simon

---

[2] COPE was formed by the Inuvialuit in January, 1970 in response to oil exploration efforts in the Mackenzie Delta and Beaufort Sea (Osherenko and Young, 1989:83). That the Canadian oil and gas industry is "concerned" about the IFA is reflected in Keeping's (1989) legal analysis of the implications of the settlement for non-renewable resource development in the region.

Reisman (later, Canada's chief negotiator for the Free Trade deal with the United States) (Indian and Northern Affairs Canada, 1985:115). The Inuvialuit's Western Arctic Claim was formally settled by COPE and the federal government in 1984. The COPE ratification process involved a successful referendum in which all Inuvialuit of voting age had an opportunity to vote on the proposed settlement (Indian and Northern Affairs Canada, 1985:36). The area covered by the settlement, depicted in Figure 1.1, generally coincided with the lands traditionally occupied and used by the Inuvialuit.

6.3 Primary Provisions of the IFA

The paramount importance of wildlife harvesting rights and environmental protection is entrenched in many of the provisions of the IFA. Maintaining their ties to the land and the preservation and enhancement of renewable resource-based economies underscored Inuvialuit demands during the negotiation of the claim. Indeed, contrary to popular belief and the media's emphasis on the financial compensatory elements of land claims, many consider that the IFA "focuses on land and wildlife rather than cash" (Canadian Arctic Resources Committee, 1988A:14). Thus, discussion of the provisions of the settlement in this chapter refers to the compensation and other economic issues, but emphasizes the renewable resource protection and management provisions.

6.3.1 Extinguishment of Aboriginal Title

In return for certain/limited rights and benefits (considered distinct from aboriginal rights) provided by the IFA, the Inuvialuit agreed to

> cede, release, surrender and convey all their aboriginal claims, rights, title and interests, whatever they may be, in and to the Northwest Territories and Yukon Territory and adjacent offshore areas, not forming part of the Northwest Territories or Yukon Territory, within the sovereignty or jurisdiction of Canada. (sec. 3(4))

Clearly, this decision was not made easily by COPE nor was it made without considerable concerns about the implications of the clause. Elsewhere in the NWT and Yukon, other native organizations criticized the Inuvialuit for accepting the extinguishment condition, arguing that it set a dangerous precedent for their own land claim negotiations with the federal government (Whittington, 1985A:87). However, it appears that COPE had little choice on this issue if it was to achieve a speedy settlement given the rigidity of the comprehensive land claims policy in place at that time (refer to Department of Indian Affairs and Northern Development, 1984). The unfairness of the requirement is reinforced by the fact that aboriginal land rights "were recognized and affirmed" in the 1982 Canadian Constitution (Burnett, 1984:35), and is an indication of the federal government's desire to erase aboriginal title throughout northern Canada

(Keeping, 1989).[3]

6.3.2 7(1)(a) and (b) Lands

Under the IFA, the Inuvialuit were accorded title to 35,000 square miles of land (approximately 91,000 square kilometres) (sec 7(1)). This amounts to approximately 20 percent of the land and water the Inuvialuit traditionally used and occupied (Osherenko and Young, 1989:98). Often referred to collectively as the "7(1)(a) and (b) lands", the land selection is broken down into: six blocks of 700 square miles around each of the six Inuvialuit communities and a block of 800 square miles in the Cape Bathurst area (for a total of 5,000 square miles), including sub-surface mineral resources (sec. 7(1)(a)(i) and (ii)); and an additional 30,000 square miles in the Western Arctic, less sub-surface resources (sec. 7(1)(b)).

Given that the Western Arctic is 360,000 square kilometres, the amount of land granted to the Inuvialuit is an indication of the federal government's reluctance to give native people control over petroleum and natural gas deposits or a direct role in their extraction. According to Merritt,

> this exclusion is accomplished by: rejecting sub-surface title in the hands of aboriginal peoples or confining

---

[3] The most recent amendment to the federal government's comprehensive land claims policy states that "alternatives to extinguishment may be considered provided that certainty in respect of lands and resources is established" (Indian and Northern Affairs Canada, 1987:12).

> sub-surface title to small areas of limited mineral potential. (Merritt, 1984:81)

As we shall see in Section 6.3.6, a mitigating factor lies in the provisions of the IFA for Inuvialuit participation in two joint environmental impact assessment bodies, which are now part of the approval process for any non-renewable resource development proposals, including petroleum and natural gas extraction and transportation, in the Western Arctic.

6.3.3 Financial Compensation for Surrender of Title

The IFA was negotiated on the basis of a federal comprehensive land claims policy whose goal was to "exchange undefined aboriginal land rights for concrete rights and benefits" (Department of Indian Affairs and Northern Development, 1984:63). Accordingly, in return for agreeing to the cessation of their aboriginal rights, the Inuvialuit received 45 million dollars, valued as of December 31, 1977, from the federal government (sec. 15(2)). Although not without importance with respect to its economic role, the financial compensatory provision comprises a relatively small portion of the IFA.

6.3.4 Economic Development

In recognition of the economic problems and barriers faced by the Inuvialuit, the IFA established two key economic goals: "full Inuvialuit participation in the northern Canadian economy" (sec. 16(2)(a)); and "Inuvialuit integration

into Canadian society through development of an adequate level of economic self-reliance and a solid economic base" (sec. 16(2)(b)). Similar to other sections of the IFA, the provisions for economic development, while not precluding Inuvialuit participation in the development of non-renewable resources, are often closely linked to conservation and the sustainable use of wildlife and fisheries. Delury (1986:171) notes that this is because the Inuvialuit consider renewable resources, as they have always done, as the most reliable and secure source of economic development. In addition, discussion in Section 2.5.1 indicated that wildlife and fisheries harvesting performs important social and cultural functions, as well as an economic role.

A number of wholly-owned and administered Inuvialuit structures were accorded responsibility "for the management of the compensation and benefits received by the Inuvialuit pursuant" to the IFA (sec. 6(1)). These included the Inuvialuit Regional Corporation, which holds all of the voting shares in the development, investment, and land corporations and administers Inuvialuit "7(1)(a) and (b) lands through the Inuvialuit Lands Administration (sec. 6(1)(a)). In effect, the Inuvialuit Regional Corporation is responsible for all matters other than wildlife, the domain of the Inuvialuit Game Council. During negotiation of the land claim, the Inuvialuit decided to ensure that administration of financial affairs would be separate from the administration

of their interests in, and concerns about, wildlife and fisheries (Interview with N. Snow, May 16, 1989).

Upon implementation of the IFA, the federal government allocated a $10 million Economic Enhancement Fund to the Inuvialuit Development Corporation (sec. 16(8)(a)) and established a $7.5 million Social Development Fund to address "social concerns such as housing, health, welfare, mental health, education, elders and the maintenance of traditional practices and perspectives within the Inuvialuit Settlement Region" (sec. 17(2 and 3)). In addition, both the federal and territorial governments agreed, where the Inuvialuit submit the best bid or proposal, to award contracts for the supply of goods and services (sec. 16(8)(b)) or approval for resource development on Crown lands (sec. 16(10)) to the Inuvialuit.

6.3.5 Wildlife Harvesting Rights

While specifying that the Inuvialuit do not have any proprietary interests in wildlife, the IFA does accord the Inuvialuit with "the preferential right to harvest all species of wildlife, except migratory non-game birds and migratory insectivorous birds, for subsistence usage throughout the Western Arctic" (sec. 14(6)(a)). Additionally, and for greater certainty, the Inuvialuit have the exclusive right to harvest furbearers, including black, grizzly, and polar bears and muskoxen, anywhere in the Western Arctic (sec. 14(6)(b)

and (c)), the exclusive right to harvest game on Inuvialuit lands and elsewhere if agreed upon (sec. 14(6)(d)), and rights similar to the preceding on the Yukon North Slope (sec. 12(24-40)). With respect to fisheries, the Inuvialuit have preferential rights "to harvest fish for subsistence usage including trade, barter and sale to other Inuvialuit" (sec. 14(31)) and first priority to harvest marine mammals (sec. 14(29)).

Preferential and exclusive harvesting rights, while providing specific rights of access to wildlife and fisheries, do not give the Inuvialuit the power to protect those resources. Usher candidly points out that:

> The right to hunt in an inanimate landscape is clearly not a useful one. If native Northerners are to defend their essential interests in their resource base, and the environment that sustains it, then they will have to have property and management rights in wildlife. (Usher, 1987:6)

The IFA provides the Inuvialuit with the latter, but not the former. This is an issue that demonstrates the importance of the two co-management bodies accorded responsibility for environmental impact assessment. The next section outlines the management rights granted to the Inuvialuit under the IFA.

6.3.6 Environmental Protection and Renewable Resource Management

The present and potential roles of wildlife and fisheries in the Inuvialuit culture and economy are referred to directly and indirectly throughout the IFA, largely because COPE considered renewable resources the crux of the settlement, and

therefore, heavily emphasized this element during the negotiation process (Keeping, 1989:47; Whittington, 1985A:86). The IFA states that a fundamental goal of the settlement

> is to protect and preserve the Arctic wildlife, environment and biological productivity through the application of conservation principles and practices (sec. 14(1)).

To this end, the IFA sets out several provisions to facilitate the achievement of this goal, including land-use planning, co-management, and protection of the Yukon North Slope. Where large-scale resource extraction and transportation occurs in the settlement region, the IFA accords the Inuvialuit a role in environmental impact assessment and provides compensatory arrangements for impacts on wildlife and fisheries. Additionally, the IFA formalizes and clarifies the roles and mandates of several Inuvialuit organizations involved in wildlife and fisheries management.

Wildlife Compensation

Through the IFA, the Inuvialuit sought not only to protect renewable resources in the Western Arctic, but also to provide some mechanisms for compensation in the event that development in the region damages wildlife populations and negatively affects harvesting activities. The joint Environmental Impact Review Board (to be discussed in more detail below) has the authority to review all proposed developments in the Western Arctic and make recommendations to government for the implementation of mitigative and

remedial measures to minimize impacts on harvesting (sec. 13(11)(a)) and "an estimate of the potential liability of the developer, determined on a worst case scenario" (sec. 13(11)(b)). Where a developer fails to compensate after causing actual wildlife harvest loss, the federal government is required to assume that liability (sec. 13(16)).

The IFA describes the types of compensation Inuvialuit can have access to (sec. 13(18)) and outlines the process for mediation and arbitration of wildlife harvest loss claims (sec. 13(19-25)). It is conceivable that the requirement that Inuvialuit claimants must prove "on a balance of probabilities ... that the actual harvest loss or future harvest loss or both results from development" in order to succeed before the Arbitration Board (sec. 13(21)(b)), may deter some Inuvialuit with justifiable claims and suggests and perpetuates a multitude of legal loopholes developers can employ. At the very least, it places considerable institutional barriers to native participation in the process.

Yukon North Slope

For a number of reasons, protection of the environment of the Yukon North Slope was considered a high priority issue by COPE. Accordingly, the IFA states that the area "shall fall under a special conservation regime whose dominant purpose is the conservation of wildlife, habitat, and traditional native use" (sec. 12(2)). The negotiation of the

IFA was the culmination of fifteen years of conflicting development and conservation proposals for the North Slope (Livingstone, 1986:6). It provided for the establishment of a National Park in the western portion of the North Slope (sec. 12(5-15)), a Territorial Park to comprise all of Herschel Island (sec. 12(16-19)), and a zone of controlled development in the remainder of the North Slope (sec. 12(23)).

Given the unique bio-physical characteristics of the North Slope and its location in a jurisdiction apart from the remainder of the Western Arctic (the Yukon Territory), the IFA required the establishment of a separate co-management Wildlife Management Advisory Council (North Slope) (sec. 12(46-56)).[4] Further protective measures for the North Slope are provided for in the Porcupine Caribou Management Agreement (a co-management arrangement), the Council for Yukon Indians' Agreement-in-Principle with the federal government on their comprehensive land claim, and the land-use planning arrangements included in a federal-territorial agreement (Livingstone, 1986).

Community-Based Land-Use Planning

In the NWT portion of the Western Arctic, the IFA requires that

for the purpose of coordinating land use planning for the

[4] The Wildlife Management Advisory Council (North Slope) is mentioned here, but is not the focus of analysis in this thesis (see Section 1.2).

> Beaufort Sea Region, there shall be area-specific groups dealing only with the Inuvialuit Settlement Region and that native participation, including Inuvialuit participation, in each group shall be equal to government participation (sec. 7(82)).

In accordance with the settlement and an agreement between the federal and territorial governments for northern land-use planning, the Mackenzie Delta-Beaufort Sea Regional Land Use Planning Commission was established in April, 1987 (Mackenzie Delta-Beaufort Sea Regional Land Use Planning Commission, 1988:1-2). Two key objectives of the Commission are "to arrive at a fair balance of land and resource use throughout the Mackenzie Delta-Beaufort Sea region" and "to advise on preferred or priority use of specific areas" (Mackenzie Delta-Beaufort Sea Regional Land Use Planning Commission, 1988:6).

While the Commission is comprised of equal native and government representation and shares similar goals and objectives with the co-management bodies, it differs considerably from the latter with respect to structure, authority, and activities (Interview with W. Erickson, May 15, 1989). In addition, it appears that the Commission is meant to complement the renewable resource framework as a policy-based instrument, rather than serve as an integral component of it. In response to concerns expressed by the Inuvialuit leadership, the participants involved in the process of developing the regional plan made it clear that the final document would not supersede the co-management regime or any of the other provisions of the IFA (Interview

with W. Erickson, May 15, 1989).

The Renewable Resource Co-Management Regime

In the context of this thesis, the most important principles in the IFA are those that acknowledged the demands of the Inuvialuit for their meaningful participation in renewable resource management. These principles reflected a growing awareness by federal, and in particular, territorial government authorities, that to exclude native people from decision-making regarding wildlife and fisheries was "a recipe for failure" of policies and programs (Canadian Arctic Resources Committee, 1988B:48).

> It is recognized that one of the means of protecting and preserving the Arctic wildlife, environment and biological productivity is to ensure the effective integration of the Inuvialuit into all bodies, functions and decisions pertaining to wildlife management and land management in the Inuvialuit Settlement Region. (sec. 14(4))

Because the IFA is legislation and places commitments on the federal and territorial governments, it provides the Inuvialuit with the security of a legal and permanent co-management arrangement.

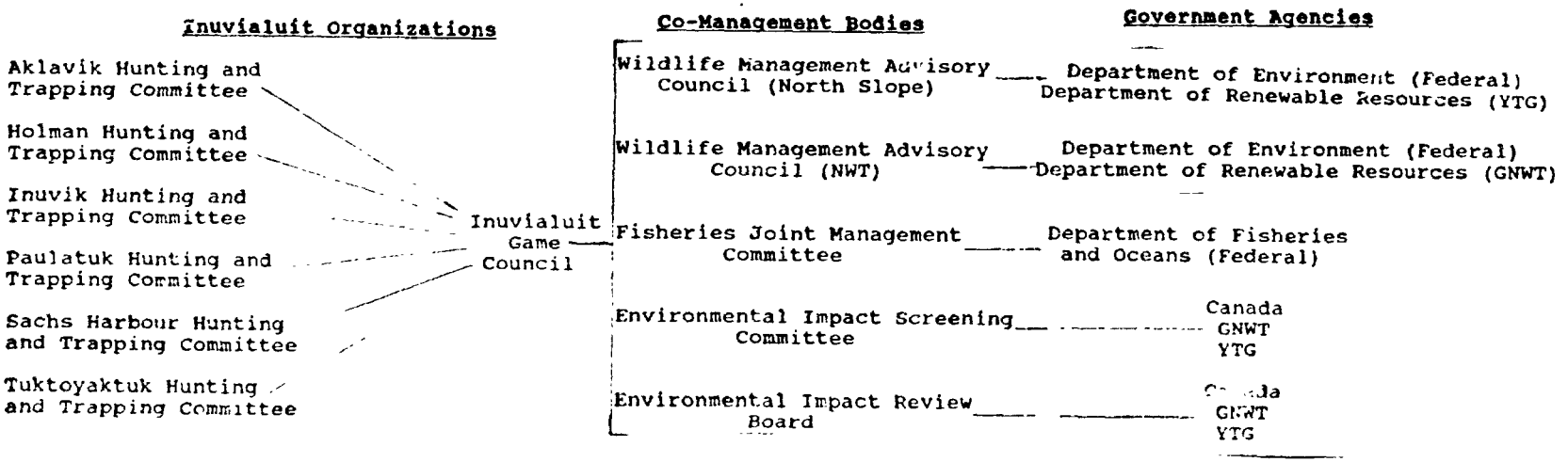
The James Bay and Northern Quebec Agreement set up a single co-management structure for all areas of renewable resource management (see Section 4.4.3), while the Beverly-Kaminuriak Caribou Management Board functions as a co-management body for two populations of one wildlife species (see Section 4.4.2). In contrast, an Inuvialuit role in

resource management was provided for in the establishment of five distinct co-management bodies: two are responsible for wildlife management, one is responsible for fisheries management, and two are part of the environmental impact assessment process. There are also provisions for the representation of other native groups in the Settlement Region or adjacent regions when shared wildlife and fisheries are being considered (for instance, sec. 14(62)). Of the eleven Inuvialuit participants in the co-management regime I interviewed, several emphasized repeatedly the importance of this regime in ensuring their people an active voice in renewable resource management and in the scope and speed of non-renewable resource development.

Figure 6.1 depicts the five co-management bodies and their linkages with government agencies and key Inuvialuit organizations (the latter are discussed in the following section). The Wildlife Management Advisory Council (North Slope) is briefly discussed above.

Not referred to in the organizational diagram are the Research Advisory Council (sec. 14(80-86)), which has yet to be established, and the Joint Secretariat. However, the former is not identified as a co-management structure here because Inuvialuit representatives will comprise less than half of its membership (sec. 14(82)) (refer to the definition of co-management in Section 4.2). Some discussion about the role it will fulfil has taken place, but the body has yet to

FIGURE 6.1: Organization of the Renewable Resource Co-Management Regime Established Under the IFA



GNWT - Government of the Northwest Territories
YTG - Yukon Territorial Government

Additional agencies/organizations with links to the IFA co-management regime include the Joint Secretariat, the Research Advisory Council, other Inuvialuit organizations such as the Inuvialuit Regional Corporation, the Porcupine Caribou Management Board, Dene/Metis organizations, and a large number of inter-governmental committees.

Source: Wildlife Management Advisory Council (N.W.T.), 1988:4

be established (Interview with N. Snow, May 16, 1989). It is likely that the Inuvialuit do not consider the Council to be a high priority issue while the co-management bodies are still evolving. Similarly, the Joint Secretariat, the organization set up to provide technical and administrative support to the IFA co-management regime, is not a co-management body, although it has assumed a central role which is described in the next chapter. The implications of this role are also addressed.

Interestingly, the IFA represents perhaps the first legal validation, if only indirectly, of indigenous self-regulation in Canada:

> The relevant knowledge and experience of both the Inuvialuit and the scientific communities should be employed in order to achieve conservation. (sec. 14(5))

This theme - an integration of the scientific, state-based system and Inuvialuit indigenous self-regulation - is explored in the following chapter in the context of the Wildlife Management Advisory Council (NWT) and the Fisheries Joint Management Committee.

Inuvialuit Renewable Resource Organizations

The role and responsibilities of the Inuvialuit Game Council (IGC), which had been operating for several years prior to the settlement of the land claim, were formalized under the IFA. Its purpose is to "represent the collective Inuvialuit interest in wildlife" (sec. 14(74)). Thus, the

IGC administers all Inuvialuit renewable resource harvesting rights granted under the IFA on "7(1)(a and b) lands" and crown land in the Settlement Region (Interview with N. Snow, May 16, 1989). The membership of the IGC is comprised of thirteen individuals, seven of whom vote as Directors - an elected chair (a Director) and two representatives from each of the six community Hunting and Trapping Committees (one voting member, a Director, and one non-voting member) (Inuvialuit Game Council, 1988:4). As Figure 6.1 illustrates, the IGC plays a critical role in the co-management regime because it provides all Inuvialuit representation on the five co-management bodies (sec. 14(74(a)), as well as the Canadian Porcupine Caribou Management Board (Interview with N. Snow, May 16, 1989); it also participates in a number of other bodies on specific renewable resource issues in the Western Arctic, such as ocean dumping and environmental monitoring (Inuvialuit Game Council, 1988:18). Additionally, the IGC has a wide range of responsibilities with respect to specific areas of wildlife and fisheries management including

> advising government on wildlife [and fisheries] policy, legislation, regulation and administration, allocating quotas among Inuvialuit communities and assisting the joint management bodies established under the I.F.A. in carrying out their duties. (Inuvialuit Game Council, 1988:1)

With the implementation of the IFA, it appears that the IGC has moved from its peripheral position in management in the Western Arctic, to play a more central role with a direct avenue to, and participation in, decision-making.

Most interviewees observed that while differences of opinion regarding wildlife and fisheries issues among the communities remain, the IGC is working as an effective umbrella organization for harvesting communities and is strengthening Inuvialuit cooperation and a sense of collectivity, both important criteria for successful co-management (refer to (c) and (f) in Section 5.2.1). That local communities have their own harvesting organizations improves opportunities for balanced Inuvialuit representation on the co-management bodies. The six Inuvialuit Community Corporations were required to establish community Hunting and Trapping Committees (HTCs) that would represent local-level interests in wildlife and fisheries issues and provide for a local-level role in several aspects of management and regulation (Doubleday, 1989:217-218). The activities of the HTCs, as specified under the IFA, include: advising the IGC on community needs and interests with respect to harvesting and management, sub-allocating harvesting quotas (sec. 14(76)(d and e)), assisting in harvest data collection (sec. 14(76)(h), and, on request, assisting the Wildlife Management Advisory Councils (NWT and North Slope) in carrying out their responsibilities (sec. 14(76)(i)). The fact that the HTCs are, to some degree, subordinate to the wildlife and fisheries co-management bodies is discussed in Section 6.7 and Chapter 7.

6.4 Environmental Impact Screening and Review Process

Like many provisions of the IFA, the Environmental Impact Screening and Review Process (EISRP) is complex (some might say unnecessarily convoluted) and not easily understood upon initial reading. The framework and practical implementation of the EISRP is worthy of a separate research inquiry, as noted by several interviewees. The purpose here, therefore, is to provide a brief overview of the Process and how it has operated to-date. However, interview results with participants in the two co-management bodies mandated to carry out environmental assessment - the Environmental Impact Screening Committee (EISC) and the Environmental Impact Review Board (EIRB) - will be referred to throughout this chapter and the next in the context of the entire co-management regime. With southern-based, multi-national industrial interests currently looking northward to the Mackenzie Delta and Beaufort Sea, it appears that the EISRP will be a crucial part of the regime over the next ten years (Interview with R. Cockney, May 10, 1989).

Generally, all proposed development projects in the Inuvialuit Settlement Region (see Figure 1.1) that are likely to cause negative environmental impact must be screened (sec. 11(1)) because the IFA is paramount legislation (Interview with G. Wagner, May 9, 1989). Development proponents are required to submit project descriptions which are scrutinized by the EISC to "determine if the proposed development could

have a significant environmental impact" (sec. 11(13)). Following screening, the EISC must contact the government agency with jurisdiction for authorizing the project and indicate that the development may proceed without further assessment (sec. 11(13)(a)), the proposal must be referred to the EIRB or another appropriate government review process (sec. 11(13)(b) and (15)), or the proponent must submit another project description (sec. 11(13)(c)). If the EIRB receives a proposal, it must hold a public review (sec. 11(16)) and

> on the basis of evidence and information before it shall recommend whether or not the development should proceed and, if it should, on what terms and conditions, including mitigative and remedial measures. The Review Board may also recommend that the development should be subject to further assessment and review and, if so, the data or information required. (sec. 11(24))

Because the recommendations of the EIRB are not binding on government decision-makers (sec. 11(27)), the body acts in an advisory capacity as an adjudicator of development projects. Government authorities are not wholly unaccountable, however. They must respond within 30 days if the Board's recommendations are modified or rejected outright, indicating their justification for doing so (sec. 11(29)). Such accountability provides the EIRB with some indirect political power (Interviews with R. Cockney, May 10, 1989; G. Wagner, May 9, 1989).

Given a number of ambiguities about the precise role of the EISRP, there is considerable uncertainty about how the

Process fits in with existing environmental review procedures within the territorial and federal governments. According to several interviewees, these ambiguities have continued to present problems despite several years of functioning by the EISC and the EIRB. Between May 1, 1987 and April 30, 1988, the EISC screened 30 projects: 21 projects were approved; 3 projects were referred for further assessment; and 6 project descriptions were returned to the proponent as deficient (Environmental Impact Screening Committee, 1988:12-15). Up until May, 1989, the EIRB had not referred a development proposal to public hearings and a formal review, although it had received several applications from the EISC (Environmental Impact Review Board, 1988; Interview with C. Templeton, May 23, 1989). Most applications were still pending because developers had yet to submit project descriptions and environmental impact statements as required by the EISRP; the remainder had been cancelled. It is interesting that 2 of the 3 projects requiring further assessment were referred to review processes other than the EIRB (within the federal and territorial governments), presumably to bodies or agencies where there would be no provision for equal Inuvialuit representation or, perhaps, any Inuvialuit representation. Other inconsistencies have occurred since development proposals were first submitted under the EISRP. In one instance, an oil well project was originally referred to the EIRB because the EISC decided it posed environmental risks.

Subsequently, the proponent, in close consultation with the Department of Indian and Northern Affairs, scaled down the project and resubmitted it to the EISC, which gave approval to the new proposal (Interview with C. Templeton, May 23, 1989). It appears that the federal government was attempting to circumvent, or actively work against, the IFA in order to promote development in the region.

The former chairperson of the EIRB, observed that there was a general lack of awareness among government institutions about the requirements of the EISRP and that staff within some federal agencies have resisted sharing responsibility for environmental review with the two co-management bodies (Interview with C. Templeton, May 23, 1989). Similarly, it appears that some of the corporations involved in non-renewable resource exploitation in the Western Arctic remain largely unaware of this process for the review of proposed projects, although both bodies are making efforts to make both government agencies and potential private proponents aware of their obligations under the Process (Interview with G. Wagner, May 9, 1989). In September, 1989, three large petroleum companies were forced to postpone work on a joint $34 million exploration well in the Beaufort Sea when their proposal was referred by the EISC to the EIRB for a public review, a decision they objected to strongly (Donville, 1989:A1 and A2). The companies had expected to start drilling October 1, 1989; clearly, they were ignorant of the full implications of the

requirements for environmental assessment under the IFA. The example also serves to illustrate, however, that the Inuvialuit can now play a direct role in the evaluation, rate, and scope of non-renewable resource development. Equally important is that the EISRP, upon achieving greater visibility and recognition, will likely enhance the role of the other co-management bodies within the renewable resource management framework. Without this Inuvialuit voice in the use of non-renewable resources, both Inuvialuit participation in wildlife and fisheries management and the achievement of conservation goals would be undermined.

It was beyond the scope of my research to fully assess the degree to which development proposals bypass the EISRP. This is an important area of inquiry for future research efforts on the IFA co-management regime. Such results would be of value to the Inuvialuit, whose life-style and economies would be the most affected by an environmental disaster in the Western Arctic and/or inadequate mitigative and compensatory arrangements in the event of reductions in wildlife and fisheries populations. Future research will also likely be able to evaluate the experience of public hearings and formal reviews and the response of government licensing authorities to the EIRB's recommendations about development proposals. This may be the true test of environmental impact assessment under the IFA.

6.5 Fisheries Joint Management Committee

The Fisheries Joint Management Committee (FJMC) and the Wildlife Management Advisory Council (WMAC) (NWT) are the most active co-management bodies under the IFA, and with their mandates for fisheries and wildlife management, represent the core of the regime. Moreover, they serve as the primary avenue for Inuvialuit participation in all aspects of wildlife and fisheries management in the Western Arctic. Both bodies were established in 1986, and while they are still evolving, each has a history that can be studied and analysed and that provides some indication of the full role they will eventually assume. The remaining sections of this chapter provide a review of the membership and responsibilities of these co-management bodies, an examination of their functioning with respect to some of the criteria outlined in Sections 5.2.1 and 5.2.2, and a discussion of differences between the two. It is particularly useful to consider how the FJMC and WMAC (NWT) have interpreted their mandates and broadened their activities, accordingly.

6.5.1 Structure and Mandate

The scope of the Fisheries Joint Management Committee (FJMC) includes **both** fresh-water, anadromous, and marine fisheries and marine mammals. It was identified earlier (Chapter 2, and particularly Table 2.1) that those species most important in the Inuvialuit subsistence and commercial

economies and on which the FJMC and the WMAC (NWT) focus their attention. According to the FJMC's most recent annual report, the body has addressed issues and concerns about bowhead and beluga whales, ringed seal, arctic charr, broad whitefish, lake trout, cisco, innconu, and marine shellfish, among other species (Fisheries Joint Management Committee, 1989).

Of the IFA co-management bodies, the FJMC has the smallest membership - five members: a chairperson[5], who is selected by the membership, two Inuvialuit representatives appointed by the IGC, and two representatives of the federal Department of Fisheries and Oceans (DFO) (sec. 14(62)) (Interview with B. Bell, May 8, 1990). Each member has one vote, although the chairperson can only vote in the event of a deadlock (sec. 14(63)). The implications of this clause, which also applies to the WMAC (NWT), are discussed later in this chapter. As specified under the IFA, the primary responsibilities of the FJMC include (sec. 14(64)):

* reviewing information on the state of fisheries in the Western Arctic (a and b);
* determining current harvest levels (c);
* regulation of public fishing on "7(1)(a and b) lands" through the development and maintenance of a registration

[5] Up until May, 1989, the chairpersons of the co-management bodies had all been non-Inuvialuit individuals.

system (d-f);[6]

* allocation of subsistence quotas among the six community HTCs (g);

* determining the reporting requirements and the role of the community HTCs in the regulation of subsistence harvesting and the collection of harvest data (h);

* recommending Inuvialuit harvest subsistence quotas, and regulations regarding commercial and sport fishing on "7(1)(a and b) lands" to the minister of DFO (i);

* and advising the minister of DFO on all aspects of fisheries management from the local to the international level (j).

6.5.2 Activities

Several of the responsibilities listed above, as well as the principles of the co-management section of the IFA (sec. 14(1-5)), are somewhat vague. They have been interpreted by the FJMC to include a range of activities that generally coincides with the overall functions of co-management listed in Figure 4.1.[7] Enforcement of regulations is a minor part of the FJMC's activities, though, and is carried out only with respect to the registration system the body is working on in

---

[6] Refer to criterion (1) in Section 4.2.1 in this context.

[7] The mandate of the FJMC excludes environmental impact assessment which is carried out by two other bodies under the IFA.

association with the Inuvialuit Land Administration (sec. 14(64)(d-f); Fisheries Joint Management Committee, 1989:6). The minimal role of the FJMC in this aspect of regulation has meant that Inuvialuit harvesters not involved with the HTCs and who might not be familiar with the responsibilities and activities of the body, have recently began to recognize the distinctions between the FJMC and DFO, the federal enforcement agency for fisheries (Interview with L. Harwood, May 11, 1989).

Not explicitly stated above are the research projects and community consultation strategies that quickly became important parts of the FJMC's activities after its establishment (Interview with B. Bell, May 8, 1989). The FJMC has conducted, or participated in, extensive fisheries and marine mammal research throughout the Western Arctic, particularly for arctic charr and beluga whale populations (Fisheries Joint Management Committee, 1987; 1989). In fact, the research programs undertaken by the FJMC account for 50-60% of its annual budget, reflecting its perceived role as a major actor in increasing the knowledge base of those fisheries and marine mammals in the region upon which the Inuvialuit depend (Interview with L. Harwood, May 11, 1989). For instance, the FJMC has expended considerable money and time on a Beluga Management Plan, the idea for which originated in the four mainland communities - Paulatuk, Tuktoyaktuk, Aklavik, and Inuvik.

The entire membership of the FJMC goes on an annual tour of the six Western Arctic communities, when financially possible, in order to hear first-hand the needs and concerns of Inuvialuit harvesters (Fisheries Joint Management Committee, 1989:23). The administrator (the regional manager of DFO), resource person, and chair of the FJMC also attend some of the community HTC meetings to enhance this exchange of information and concerns about issues (Interview with L. Harwood, May 16, 1989). Because of the relative remoteness of the Inuvialuit communities from one another and the fact that the Inuvialuit emphasize oral communication over written communication, these links are crucial. According to a number of interviewees, this sharing of information subsequently, and in connection with input from the body's Inuvialuit members, forms the basis of much of the agenda of the FJMC. For instance, arctic charr test fisheries were carried out in 1987 on the east coast of Banks Island and between 1987 and 1989 on the Hornaday and Brock Rivers in response to requests from the communities of Holman and Paulatuk respectively (Fisheries Joint Management Committee, 1989:12 and 14).

In the last two years, communities have been increasingly involved in research programs to the point where projects have been completely contracted out to a community by the FJMC (Interview with V. Gillman, May 16, 1989). The Holman HTC has carried out several such projects employing only community members, with the exception of limited external assistance

with fieldwork and analysis of the collected data. The level of community consultation maintained by the FJMC, together with the participation of local-level harvesters in test fisheries and other research projects, indicates that the body is striving to be accountable to the communities. Moreover, it suggests that the FJMC, in this case, is fostering "a sense of ownership and responsibility for the system's success" among Inuvialuit harvesters (Osherenko, 1988:41; also refer to Section 5.2.2).

The calculation and allocation of harvesting quotas, although mandated under the IFA, is an area of co-management the FJMC has not yet had to engage in. Currently, there is no apparent need in the Western Arctic for species-wide quotas for the harvesting of fish or marine mammals because stocks are generally healthy and harvesting falls well within sustainable limits (Interview with L. Harwood, May 16, 1989). This has not precluded the need to address local-level population declines. In at least three instances, community HTCs have worked cooperatively with the FJMC to close subsistence fisheries on rivers where stocks have declined due to overfishing or natural factors (see Section 7.2.3 for further discussion).

Similar to the Beverly-Kaminuriak Caribou Management Board, the FJMC has yet to be tested by a difficult issue such as a sudden and precipitous decline in the population of a marine mammal species. Such an issue may disclose flaws

stemming from the body's advisory capacity. Many decisions made by the FJMC, other than those related to research, are simply recommendations to government ministers who retain final discretionary authority (sec. 14(65)). In effect, this limits the full involvement of Inuvialuit harvesters, through the conduit of the FJMC, in fisheries management.

6.6 Wildlife Management Advisory Council (NWT)

6.6.1 Structure and Mandate

While the FJMC has jurisdiction throughout the Inuvialuit Settlement Region, the jurisdiction of the Wildlife Management Advisory Council (WMAC) (NWT) excludes the Yukon North Slope (sec. 14(47)) (refer to Figure 1.1) for reasons outlined above in Section 6.3.6. The membership of the WMAC (NWT) consists of seven individuals: three Inuvialuit representatives appointed by the IGC, one representative of the federal Canadian Wildlife Service, two representatives of the Department of Renewable Resources (DRR) of the Government of the Northwest Territories (GNWT) (sec. 14(46)), and a chairperson (sec. 14(54)). The chairperson is appointed by the GNWT, with the consent of the IGC and the federal government. Voting procedures are the same as for the FJMC (sec. 14(55)).

According to the IFA, the purpose of the WMAC (NWT) is to provide advice to government ministers on all issues "relating to wildlife policy and the management, regulation

and administration of wildlife, habitat and harvesting for the Western Arctic Region" (sec. 14(60)). Specifically, the body is mandated to (sec. 14(60)):

* review and advise government, and other bodies where appropriate, on wildlife management issues including legislation, habitat protection, and international agreements (a, e, f, and g);
* prepare a wildlife conservation and management plan for the Western Arctic (b);
* determine and recommend harvesting quotas for the Inuvialuit and other native peoples (c and d);
* and request the participation of the HTCs in regulating subsistence harvesting and collecting subsistence harvesting information (h).

Wildlife species the WMAC (NWT) has focused its attention on in the last several years coincide with those currently important for Inuvialuit subsistence harvesting, including polar and grizzly bears, barren-ground caribou, moose, various species of migratory geese and waterfowl, muskox, and wolf (various interviews; Wildlife Management Advisory Council (NWT), 1988; Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1989). For instance, these species, in addition to those referred to in Section 6.5.1, figure prominently in an ongoing harvest survey involving the IGC, WMAC (NWT), and FJMC (Fabijan, 1989).

6.6.2 Activities

Generally, the WMAC (NWT) appears to be fulfilling the mandate set out for it in the IFA, particularly its responsibilities for calculating harvesting quotas, recommending regulation changes, and advising government on policy (Interview with L. Treseder, May 11, 1989). The WMAC (NWT) reviews all requests for regulation changes from the HTCs and refers these to either the appropriate government authority or the IGC (Interview with R. Binne, May 17, 1989). According to one Inuvialuit representative on the WMAC (NWT),

> Before the IFA was settled, regulation changes would take a long time or never happened for years, but now since the IFA, the local HTCs can request changes to certain things regarding game and hunting and trapping. So we've got the vehicle now - the WMAC - which is equal participation with the territorial and federal governments.

Neither the WMAC's (NWT) formal mandate nor the additional activities it has assumed, however, include all the functions listed in Figure 4.1. As a result, the full potential of co-management for community participation in several key areas of wildlife management, including research, has not been realized.

Because the WMAC (NWT), unlike the FJMC, does not have the financial resources to conduct an annual tour of the six communities, it has had to maintain a frequent level of communication with the IGC in order identify Inuvialuit aspirations and concerns throughout the Western Arctic. Discussion between the WMAC (NWT) and the IGC led to

> the establishment of a much closer working relationship with the IGC than was perhaps envisaged in the IFA. The WMAC (NWT) now serves to advise the IGC on a continuing basis. (Wildlife Management Advisory Council (NWT), 1988:2-3).

Members of the WMAC (NWT) attend many of the meetings of the IGC to provide technical advice and register current Inuvialuit interests and concerns. Subsequently, the WMAC (NWT) holds its own meeting immediately afterwards to address IGC requests, such as an increase in a harvesting quota or a change in hunting seasons, among other issues. Meeting locations are typically rotated among the six communities, thereby providing HTCs without direct representation on the WMAC (NWT) occasional opportunities for consultation (Interview with R. Binne, May 17, 1989). Although it is not required to do so by the IFA, the WMAC (NWT) performs an annual review of wildlife research programs proposed by the federal Canadian Wildlife Service and the territorial Department of Renewable Resources (Wildlife Management Advisory Council (NWT), 1988:9). The review is important because the WMAC (NWT) does not have a project budget to carry out research in the Western Arctic. It does at least allow the Inuvialuit a limited amount of pro-active input into the research process. Both government agencies have responded favourably to requests from the WMAC (NWT) and the IGC, which originated at the community level, in planning research efforts (Wildlife Management Advisory Council (NWT), 1988:9; Interview with L. Treseder, May 11, 1989). However, the

absence of a research capacity within the WMAC (NWT), has prevented it from developing the sorts of ties that the FJMC have forged throughout the region, and has precluded extensive local-level participation in wildlife research.

Despite budgetary constraints, the WMAC (NWT) has been able to complete several projects that have benefitted the communities. A renewable resource directory, outlining all the agencies and organizations with jurisdiction for renewable resource management in the Western Arctic, was prepared to provide the communities with a central source of information about who they could contact for information on specific matters (Interview with L. Treseder, May 11, 1989). While useful to the HTCs, such a project also represented a one-way exchange. Perhaps the most effective means of directly involving Inuvialuit harvesters in wildlife co-management and promoting a more balanced exchange is contained within the Inuvialuit Renewable Resource Conservation and Management Plan for the Western Arctic. The first of six accompanying community conservation plans was completed in March, 1990 by residents of Paulatuk and the WMAC (NWT) (The Community of Paulatuk and the Wildlife Management Advisory Council (NWT), 1990). This has to some degree mitigated the problems referred to above in Paulatuk. The contents of the regional and community plans are discussed in more detail in Section 7.2.2.

The advisory capacity of the WMAC (NWT), in addition to

other aspects of its functioning, is discussed below in a comparison of the FJMC and the WMAC (NWT).

6.7 Comparing the FJMC and the WMAC (NWT)

According to the current chairperson, the budget of the FJMC has allowed it to fulfil most of its mandate and carry out a wide range of research programs (Interview with B. Bell, May 8, 1989). With future funding somewhat insecure, there is a possibility that the FJMC may overextend itself and have to cut-back some of its activities. For instance, the body was not able to conduct a community tour in 1989 due to limitations of funding (Fisheries Joint Management Committee, 1989:23). The WMAC (NWT) is operating under far more serious financial constraints - it has the smallest budget of the IFA co-management bodies (Interview with L. Treseder, May 11, 1989). In terms of facilitating direct community involvement in management, the most serious implication may be delays in the preparation of local-level conservation plans for the five other communities in the region.

A smaller membership, the involvement of just one government agency (DFO), and a requirement that government appointees avoid inserting DFO policy in their input, has allowed the FJMC to develop a "more informal and relaxed" format for meetings, than the other, larger co-management bodies (Interviews with V. Gillman, May 16, 1989; L. Harwood, May 11, 1989). These factors appear to have also facilitated

the development of a cooperative and less bureaucratic approach to decision-making that usually, but not always, frames the FJMC's deliberations (Interview with B. Bell, May 8, 1989). The WMAC (NWT), while also attempting to employ a consensual mode of decision-making in its meetings, has experienced some problems regarding the commitment of the territorial government membership (Interview with L. Treseder, May 11, 1989). Initially, the high level GNWT bureaucrat appointed to the WMAC (NWT) was unable to attend the majority of meetings, and only one government manager attended as a representative of DRR. Now, at least some of the government membership of, or participants in, the FJMC and WMAC (NWT) are local government officials directly involved in local and regional management and administration (Fisheries Joint Management Committee, 1989:19; Interview with A. Elias, May 16, 1989). Clearly, this has improved communication and enhanced cooperation between local management agencies and the communities because these individuals, rather than the managers in Yellowknife (DRR's central office), tend to have more familiarity with the issues facing the region (Interview with R. Binne, May 17, 1989).

Cooperation between the two actors is an important pre-requisite for the success of a co-management body (refer to criterion (e) in Section 5.2.1). Although both bodies strive to operate by consensus and avoid a voting process (all interviewees stressed this point), divisions between

government and Inuvialuit members can arise when the co-management bodies are addressing sensitive issues. At these times, one Inuvialuit representative noted that government managers are less willing to respect and listen to the Inuvialuit perspective, particularly when it does not coincide with "scientific" information (one instance where this has occurred is reviewed in Chapter 7). Discussion of bureaucratic matters also serves to exclude Inuvialuit participants, whose involvement in the co-management regime stems primarily from their concern with specific wildlife and fisheries management issues that affect hunters and trappers in the communities, not budgeting or administration.

The role of the chairpersons of the co-management bodies is not clearly specified in the IFA and has, therefore, been open to interpretation. This question is particularly important because the chairpersons may vote in the case of a deadlock between the evenly divided membership of the government and Inuvialuit representation. One former chairperson asserted that it was their role to vote with the Inuvialuit in such instances (Interview with C. Templeton, May 23, 1989). The accountability of the FJMC's chairperson is enhanced because she or he is appointed by the four members of the body, rather than the federal government (sec. 14(62)); Interview with B. Bell, May 8, 1989). The WMAC's (NWT) chairperson, on the other hand, is appointed by the GNWT with the consent of the IGC and the federal government, and could

be perceived to be somewhat more independent (sec. 14 (54)). According to several participants in the WMAC (NWT) and FJMC, the current chairpersons of both bodies see their roles as facilitators who must ensure the balanced participation of all members (Interviews with B. Bell, May 8, 1989; L. Harwood, May 16, 1989; L. Treseder, May 11, 1989; and two Inuvialuit representatives). It is less clear where they stand on the matter of voting, although both have voted with Inuvialuit representatives in the few cases where voting has been necessary (this was determined from a review of the meetings minutes of both the FJMC and WMAC (NWT)). One Inuvialuit representative expressed the concern that, while all the chairpersons have considerable experience regarding renewable resource issues in the North, many are southerners and are not always aware of Inuvialuit concerns and interests on specific issues from the outset. Given that the current chairperson of the WMAC (NWT) is an official of DRR (Interview with R. Binne, May 17, 1989) and the current chairperson of the EISC is a former employee of a major petroleum corporation , it is noteworthy that an Inuvialuit individual has yet to be appointed as a chairperson to any of the IFA co-management bodies.[8] Accordingly, neither the direct involvement of an individual in renewable resource management, nor potential conflict of interest, can be considered as grounds for

[8] However, in 1988, the chairperson of the Board of Directors of the Joint Secretariat was an Inuvialuit individual (Environmental Impact Review Board, 1988:3).

excluding someone from the position. Indeed, in the late 1970s, the chairperson of the Coordinating Committee under the JBNQA was a Cree hunter/trapper (Berkes, 1989C:195).

Generally, the FJMC and the WMAC (NWT) are fulfilling the most important parts of their required mandates, in addition to the roles and activities they perform that are not explicitly described or listed in the IFA. Several interviewees noted that the two bodies are still evolving and will likely assume the remainder of their mandated responsibilities in the next several years. Of the two bodies, the FJMC's activities more fully reflect the list of co-management functions outlined in Figure 4.1. Only the FJMC conducts research - information gathering that focuses on community needs and interests, with emphasis placed on hiring community members. The WMAC (NWT), on the other hand, has concentrated on developing a close working relationship with the IGC. In fact, the WMAC (NWT) already plays a crucial role as a forum for the sharing of information by both the Inuvialuit and wildlife management agencies, the DRR and the federal Canadian Wildlife Service. With its mandate and greater resources, however, the FJMC is making the strongest efforts to build strong communication links with harvesters in the communities through an annual tour and the contracting out of research to the communities, as well as consulting with the IGC on a consistent basis. Because the WMAC (NWT) reviews management agency research programs rather than conducting its

own research, it is clearly more removed from the communities.

In Section 4.2, I outlined that co-management bodies must share responsibility for regulation of wildlife and fisheries harvesting with those people who have the most influence on hunting, fishing, and trapping - the native harvesters. Not only do Inuvialuit harvesters have a right to be directly involved in regulation, but, as argued throughout, conservation is most effective when carried out within the communities, for the communities. According to Doubleday (1989) and Pinkerton (1989B:17 and 28), however, the IFA co-management regime frequently excludes the balanced participation of Inuvialuit local-level harvesters because the FJMC and the WMAC (NWT) retain almost full responsibility for several key wildlife and fisheries management activities (see Section 5.2.1). The experience of the co-management arrangement under the James Bay and Northern Quebec Agreement demonstrates the value of deregulation and sharing of management functions with local-level harvesting organizations (Berkes, 1989C; Pinkerton, 1989B:17 and 28). In contrast, the IGC and the HTCs

> can only provide harvest data to higher bodies and enforce regulations that come down from them. These Inuvialuit/government joint bodies centralize the power to regulate, allocate, and control public access ... Regulation of the fishery [and wildlife] and developments which affect fisheries [and wildlife] appear to be more influenced by government in this case, *because regulation is not decentralized.* (Pinkerton, 1989B:17-18)

This centralization of regulatory activities within the co-management bodies, in effect, replaces the original state-

dominated system with another hierarchical framework. Equal Inuvialuit representation is provided for on the FJMC and the WMAC (NWT) and this certainly provides harvesters with a voice in regulation. However, newly participating Inuvialuit harvesting organizations are at the bottom of the tier and are primarily responsible for implementation of regulatory measures, sub-allocating harvesting quotas, and assisting the co-management bodies (a requirement under the IFA).

Similarly, the program set up under the IFA to collect wildlife and fisheries harvest data - the Inuvialuit Harvest Study - is dependent upon the full cooperation of local-level harvesters, but is administered by the Joint Secretariat rather than the IGC. The Harvest Study employs Inuvialuit field workers in each of the six communities and has been widely accepted by the harvesters (Interview with M. Fabijan, May 15, 1989). The Study has experienced a high level of success in terms of cooperation and the accuracy of data collection. It also signifies, however, another instance where the communities assist the co-management regime rather than having an instrumental role in how it operates.

While the IGC has received authority for allocation of wildlife harvesting quotas among the communities, the FJMC is responsible for both recommending (to the minister of DFO) and allocating aggregate fish and marine mammal quotas, although it has not been necessary for it to do so yet. The WMAC (NWT) has made recommendations to government authorities for quotas

and both bodies have made recommendations for regulatory changes. Many other aspects of regulation also fall within the purview of the co-management bodies rather than having been partially, or fully, devolved to the regional and local Inuvialuit organizations. To-date, the formulation of recommendations for quotas and regulatory changes has been done in close consultation with the IGC, and the HTCs where specific communities are involved (see discussion in Sections 7.2.1 and 7.2.3).

However, there is a danger that this process will not always be so interactive because it is not entrenched in the IFA and because decisions regarding regulation are formally removed from the Inuvialuit organizations. In addition, there is perhaps a danger that the IGC and the HTCs may become an arm of the FJMC and the WMAC (NWT), with respect to regulatory activities, "taking the heat" for unpopular quotas they are responsible for allocating but have not calculated. In fact, the regional conservation and management plan states that allocation of harvesting quotas

> is the responsibility of the IGC, as such it will be important for them to convey the reason for particular allocations to the affected communities through the HTCs. (Wildlife Management Advisory Council (NWT) and Fisheries Joint Management Committee, 1988:10)

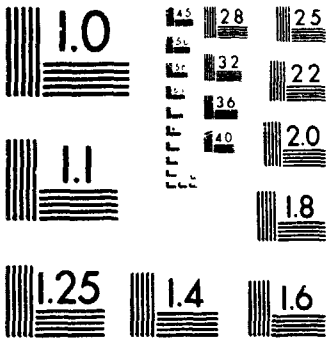
Like uncertainties about other functions of the co-management regime, the questions outlined above may not be answered until wildlife and fisheries population crises emerge and severe restrictions on harvesting are necessary. I suggest, though,

that the centralization of harvesting regulation within the co-management bodies contradicts Osherenko's requirement that

> government administrators and indigenous users must form a partnership in which the user groups gain a sense of ownership and responsibility for the system's success. To acquire a stake in the success of the regime and a reason to comply with its rules, user groups must take part in a collective decision-making process in which all parties concur with major decisions. (1988:41-42)

It also appears evident that the failure of the IFA to further deregulate wildlife and fisheries management will influence the degree to which the FJMC and the WMAC (NWT) integrate Inuvialuit knowledge and experience of the land in their activities and decision-making.

Neither the WMAC (NWT) nor the FJMC have final decision-making power, except in the realm of research and allocation of harvesting quotas (with respect to the FJMC), because submissions and advice referred to government agencies are simply recommendations that may be adopted or rejected at the discretion of ministers. It appears that the FJMC has slightly more influence on government authorities than the WMAC (NWT). Under the IFA, the minister of DFO is obligated to respond to a FJMC recommendation within thirty days, and if she or he modifies or rejects the recommendation, provide reasons for doing so (sec. 14(66) and (69)). If we conceptualize that integration of indigenous self-regulation and state-based management within co-management also means that a co-management body has some autonomy and independent



decision-making power[9], then the FJMC would fall slightly to the left of the WMAC (NWT) on the continuum described in Section 4.3. This lack of decision-making power, which poses a number of questions about the influence of the co-management bodies on sensitive issues, is discussed further in the next section and the following chapter.

6.8 The Evolving Role of the IFA Co-Management Bodies

According to the IFA, the EISRP is not meant to replace or supersede environmental assessment by government authorities in the Western Arctic (sec. 11(32)). Most likely, is that the purpose of the Process, from the perspective of the territorial and federal governments, is to complement existing development review polices and provide the Inuvialuit with a more direct role in assessment on **advisory** bodies. With respect to wildlife and fisheries management, the collective role of the WMAC (NWT) and FJMC is similar, but these bodies have also had some management functions devolved to them. The IFA describes the formal mandates and responsibilities of these co-management bodies, but does not always reflect the reality of what they actually do or how they operate. It appears that the FJMC and the WMAC (NWT) play far more than an advisory role with their involvement in,

---

[9] In other words, for a co-management body that integrates indigenous self-regulation and state-based management to have a direct and tangible influence on renewable resource management institutions it would have to have more than advisory capacity.

and initiation of, management plans and research. There are grounds to suggest that, because the FJMC and the WMAC (NWT) work closely with the IGC and to a lesser degree with the communities, they present unified (government-Inuvialuit) positions that ministers must recognize and incorporate in their consideration of recommendations. The resulting premise is that these recommendations could not easily be rejected by ministers. According to a staff-person with the Joint Secretariat, any minister who rejected or significantly altered the recommendations of a co-management body "would be really skating on thin ice - there would have to be a compelling reason for them doing so" (Interview with G. Wagner, May 9, 1989). One Inuvialuit representative commented about how the co-management bodies could respond to a territorial or federal government minister's rejection of a recommendation:

> I always go back to the fact that the IFA has statutory authority. If a minister's decision is going to be bad for the environment or hunting and fishing rights, then I think we could go further to oppose that decision. That's the way I see it. (Interviewee requested anonymity)

In this light, it could be argued that the bodies, and indirectly the Inuvialuit, do wield limited political power in renewable resource management in the Western Arctic. Ultimately, however, the IFA co-management bodies do not possess real decision-making power and as the next chapter explains, with reference to a specific example, government ministers can override a body's recommendations, even when

doing so contradicts the principles of the IFA (refer to Section 7.2.4).

According to Doubleday (1989), the WMAC (NWT)

> is virtually a model for joint or [sic] management structures in that its authority is broad, encompassing wildlife and habitat management, setting of quotas, and policy and legislative review. In theory, this body should have the capacity to make Inuvialuit views known from the local to the international level, and at all levels in between, as well as ensuring equal participation by Inuvialuit in all wildlife matters. Doubleday (1989:214-215)

Generally, the IFA co-management regime has experienced some measure of success according to some of the criteria outlined in Sections 5.2.1 and 5.2.2. It is evident that the co-management bodies have given the Inuvialuit a greater and more meaningful voice in decision-making for renewable resource management, as many interviewees - both Inuvialuit and government representatives - emphasized. Certainly, the level of communication between harvesters and government managers has risen significantly. One Inuvialuit representative on the IGC commented that "everything changed after the IFA ... government must now listen to the Inuvialuit." The division of environmental impact assessment and wildlife and fisheries management among several bodies has avoided some of the unwieldiness and meeting format and organizational problems associated with the Hunting, Fishing, and Trapping Coordinating Committee, the single co-management structure under the James Bay and Northern Quebec Agreement. There are still a number of flaws, however, that limit the full

incorporation of Inuvialuit participation and interests. Moreover, it is less clear that the functioning of the WMAC (NWT) and the FJMC will lead to an integration of the state-based system and traditional Inuvialuit self-management practices. The following chapter briefly reviews several case studies in order to address this question and outlines some of the barriers to integration, many of which also coincide with barriers to effective Inuvialuit participation within the regime.

CHAPTER 7

THE FJMC AND THE WMAC (NWT): INTEGRATING INUVIALUIT KNOWLEDGE AND STATE-BASED MANAGEMENT?

7.1 Introduction

Initially, a primary goal of this thesis was to assess whether the FJMC and the WMAC (NWT) are facilitating a bridge between the state-based management of federal and territorial agencies and the knowledge and experience of the land that resides in the six Inuvialuit communities of the Western Arctic. Following discussion in the preceding chapter, it would appear that, on the surface, the IFA co-management regime operates largely in the context of state-based, scientific resource management. The failure of the IFA to more fully deregulate the administration of harvesting rights and the confinement of the co-management regime to an advisory role exemplifies this. Comments made by the Inuvialuit representatives I interviewed indicated that the co-management bodies have empowered harvesters to some degree, however. For instance:

> Before it used to be, wait and see what the government says. But now with all these boards and committees, we're finding out that we can use those to change things, to make new regulations, and for land management. (Interviewee requested anonymity)

Additionally, opportunities for the inclusion of Inuvialuit knowledge and community-based conservation practices in wildlife and fisheries management have undoubtedly expanded with the implementation of the IFA. A more appropriate

question might be, therefore: What are the prospects for a **movement towards integration** of the two systems of renewable resource management within the FJMC and the WMAC (NWT)? Consideration of such a question must include an ar lysis of what is preventing greater movement towards an integration of the two systems.

7.2 An Examination of Four Case Studies

In order to assess the degree to which the FJMC and the WMAC (NWT) may have moved towards an integration of the state system and Inuvialuit self-regulation, or its potential for doing so, several prominent issues that the bodies have dealt with were selected for examination. These ca e studies focus on several areas of the bodies' functioning where there is considerable potential for a bridging of the two systems: calculation of harvesting quotas, conservation planning at both the regional and community level, and the new process for regulatory change. At the same time, these case studies centre on key renewable resource management issues that are of considerable concern to Inuvialuit communities in the Western Arctic. While wildlife and fisheries research is another important aspect where integration can evolve and is referred to as such in this chapter (also see discussion in Chapters 5 and 6), it should not be emphasized as the sole channel for the incorporation of local wisdom in renewable resource management. I have argued throughout this thesis

that indigenous self-regulation must be integrated at all levels. Analysis will incorporate the criteria discussed in Sections 5.2.2, and more importantly, 5.2.3. I will also be discussing barriers to Inuvialuit participation in the co-management regime. It is my contention that the integration of the two systems within co-management depends, in part, upon government representatives fully respecting the native membership and the efforts taken to redress barriers that might preclude full and equal native participation. Information presented in these case studies is drawn from documents produced by the co-management regime, interviews conducted during fieldwork, and meeting minutes of the FJMC and the WMAC (NWT).

7.2.1 Tuktoyaktuk's Grizzly Bear Quota

An important obligation of the WMAC (NWT) is the calculation and recommendation of wildlife harvesting quotas to the territorial DRR. It is also an area of management where the people who are closest to the land and who are dependent upon wildlife should have an integral role. The following example indicates that the process for determining harvesting quotas can, and should, provide for the direct input of harvesters, in addition to the Inuvialuit representation on the WMAC (NWT). The participation of local harvesters is crucial when the latter do not include people from the affected community. Discussion also points out,

however, how some government scientists minimize and deny community needs and the value of local knowledge, particularly when these conflict with their own opinions and conclusions.

Prior to the implementation of the IFA, the Tuktoyaktuk Hunting and Trapping Committee (HTC) had been lobbying the territorial DRR for several years to establish a harvesting quota for barren-ground grizzly bears ranging on the west side of the Anderson River (refer to Figure 2.1) (Interview with A. Elias, May 15, 1989). Given that "quota is one of the most hated words" in Inuvialuit communities (Interview with B. Bell, May 8, 1989), this request is quite remarkable and demonstrates considerable commitment by the HTC to address a potential overharvesting problem. There had been a quota of five grizzly bears east of the Anderson River calculated by DRR; the tags[1] were allocated within the community by the HTC (Interview with L. Treseder, May 11, 1989). Hunting on the west side was unrestricted and many members of the community were concerned that overharvesting was occurring.

With the establishment of the WMAC (NWT), the HTC had direct access to a body that could bring their concerns to government and speed up the process for establishment of a quota (refer to the comments made by an Inuvialuit representative included in Section 6.5.2). The WMAC (NWT)

[1] For clarification, a quota for grizzly bears is the total number of bears that can be harvested per year. The quota is composed of individual tags which are allocated among hunters by the community HTCs.

served as a meeting ground for the HTC which requested a quota of ten bears, and DRR which responded with a recommendation for a quota of three bears (Interview with L. Treseder, May 11, 1989). Over a six month period, the WMAC (NWT) mediated a mutually-acceptable compromise between the two groups, before submitting a recommendation for a quota of seven bears to the Minister of DRR, who subsequently accepted it. Interestingly, voting by the WMAC (NWT) on the quota was not unanimous - one of the biologists representing DRR did not support such a quota, arguing that it should be much lower. Following ministerial acceptance, the quota was passed as a bylaw by the Tuktoyaktuk HTC and then territorial wildlife regulations were changed by DRR (Interview with L. Treseder, May 11, 1989). Included in the IFA (sec. 14(76)(f)), the bylaws are a new part of the regulatory process in the Western Arctic that may both increase compliance with harvesting quotas and ensure those who will be most affected a voice in decision-making. That bylaws can be enforced by both the HTC and DRR is further reinforcement of the participatory nature of this process (Interview with L. Treseder, May 11, 1989).

This issue is notable for a number of reasons. Given the persistence of bureaucratic inertia, it is likely that a grizzly bear quota for the west side of the Anderson River would not have been established without the opportunities for harvesters' participation provided for by the co-management sections of the IFA. All participants in the WMAC (NWT) I

interviewed considered that the body's role in the establishment of the quota was the most successful example of the WMAC's (NWT) activities since it had been set up (for example, Interviews with A. Elias, May 15, 1989; L. Treseder, May 11, 1989). It was the first time the WMAC (NWT) had carried out its mandate for the calculation and recommendation of harvesting quotas.

However, it was also the only instance, up until May, 1989, that the body had not made a decision by consensus. The biologist representing DRR on the body insisted that only "expert" scientific knowledge should be considered in the body's calculation of the quota and implicitly suggested that the community's recommendation did not represent a sustainable harvesting quota (these comments were made by an interviewee who requested anonymity). Disturbingly, this was perceived by the WMAC's (NWT) Inuvialuit representatives and members of the HTC as a denial that community harvesters know a great deal about the species they harvest and that their understanding of grizzly bear biology and habitat should play an equal role alongside biologists' knowledge. Indeed, the efforts of the biologist to exclude the harvesters' knowledge contradicts two of the principles of the co-management provisions of the IFA centering on involving the Inuvialuit in all aspects of decision-making and valuing the knowledge of **both** the scientific and the harvesters' communities (secs. 14 (4 and 5)). In addition, it is interesting that the

concern over unrestricted harvesting on the west side of the Anderson River came not from the government agency with responsibility for grizzly bear conservation, but from the community itself. When the community suggested a quota, this individual in the agency perhaps felt that local harvesters were intruding on the agency's mandate and jurisdiction.

Clearly, the WMAC (NWT) acted as a forum for the presentation and interaction of two different perspectives on harvesting quotas. This case study also demonstrates that the co-management bodies can interpret their role in ways that empower local-level harvesters and ensure the involvement of Inuvialuit people other than those representatives on the WMAC (NWT). The WMAC (NWT) carried out a greater degree of consultation with the community of Tuktoyaktuk than is specifically required of it under the IFA. In other words, the process does not necessarily have to exclude community members. In fact, a quota calculated without the direct participation of the Tuktoyaktuk HTC would likely not have been accepted by harvesters in the community. Moreover, the absence of such an opportunity would have suggested to the communities that the WMAC (NWT) neither provides them with representation nor is accountable to harvesters. That the co-management bodies were established to provide the Inuvialuit with a direct and meaningful voice in renewable resource management suggests that their primary line of accountability should be to the communities, not the government agencies with

jurisdiction for renewable resource management.

One possibility suggested by this case study is that the HTCs may grow to operate as a semi-independent self-regulating force, legitimized by the IFA, and enforcing quotas that they have recommended to the WMAC (NWT). It could be argued, though, that the WMAC (NWT) represents an unnecessary channel that, in fact, weakens the potential role of the HTCs as self-regulatory institutions run by and for the communities. Whether the WMAC (NWT) will further decentralize responsibility for harvesting quotas to the communities, or follow the provisions of the IFA more closely and as a result largely exclude the HTCs from this process, is uncertain. An answer to this question will only come with future decision-making and action by the WMAC (NWT) on calculating harvesting quotas.

7.2.2 The Regional and Paulatuk Renewable Resource Conservation Plans

As discussed in Section 6.5.2, the WMAC (NWT) fulfilled its obligation under the IFA to prepare a wildlife conservation and management plan for the NWT portion of the Western Arctic with the publication of the Inuvialuit Renewable Resource Conservation and Management Plan in 1988. The document was produced cooperatively by the WMAC (NWT) and the FJMC in close consultation with the IGC and the Regional Land Use Planning Commission (Wildlife Management Advisory Council (NWT) and Fisheries Joint Management Committee,

1988:1). A primary objective of the regional plan is to create conservation plans for each of the six Inuvialuit communities, in order to accommodate their specific concerns as well as the different issues they face; Paulatuk is the first and only community to-date to have participated in the preparation of such a plan. Both plans are important documents detailing the principles, goals, and objectives of conservation of wildlife and fisheries, and the establishment and management of protected habitat areas. In the context of this thesis, the plans are of particular significance because, at the very least, they address the need to complement the state-based management approach with management by Inuvialuit harvesters.

Clearly, preserving the link between the Inuvialuit communities and the land underscores the regional plan. In order that the document be as accessible as possible, it was printed in English and the three dialects of Inuvialuktun spoken throughout the Western Arctic.[2] Moreover, the regional plan affirms Inuvialuit self-regulation in the following two principles:

> Participation of the Inuvialuit in renewable resource management is essential for the conservation of Arctic plants and animals and the habitats on which they depend.
>
> Inuvialuit knowledge and experience are essential elements in the proper management of renewable resources

[2] Unfortunately, this sensitivity to possible language barriers within the co-management regime appears to be the exception rather than the norm. Linguistic barriers are discussed further in Section 7.3.

> in the Settlement Region. (Wildlife Management Advisory Council (NWT) and Fisheries Joint Management Committee, 1988:6)

Throughout the plan, the value of indigenous knowledge and the need for on-going community involvement in all aspects of decision-making, from research programs to development of species management plans to legislative change, are acknowledged.

Undoubtedly, the implementation of the regional conservation plan will permanently alter the direction of renewable resource management in the Western Arctic, more so than most other jurisdictions in which co-management regimes are operating. It appears, though, that traditional knowledge and conservation practices are considered on the basis of how they can contribute to scientific information and state-based management efforts. The plan does not concentrate on transforming a system that has suppressed self-regulatory institutions for decades. Thus, local-level management receives much greater recognition, but remains in an ancillary role instead of being accorded equal value as a management system in its own right. As a result, the regional plan allows for an unprecedented incorporation of indigenous knowledge, but is couched in terms of the state system, which ultimately continues to dominate.

Produced jointly by community members and the WMAC (NWT), the Paulatuk plan, the first community conservation plan in the region, has generated a great deal of enthusiasm amongst

harvesters and a strong committment and desire within Paulatuk to see it implemented (Interviews with L. Treseder, May 11, 1989; and other individuals). Expanding on the regional document, the Paulatuk plan discusses in more detail the role of traditional knowledge and conservation practices. In fact, it would seem that the greatest opportunity for the recognition and legitimization of traditional conservation and management by the communities lies with plans jointly produced by the communities and the WMAC (NWT) and the FJMC for the sustainable use of the wildlife and fisheries that each of the communities depend upon. Can the goal of the integration of the two systems of resource management through co-management advocated in this thesis be realized with this plan?

The community plan included the regional principles referred to above, but went one step further, recommending, in part, that:

> More attention be given to incorporating the knowledge of the Inuvialuit into wildlife management decision-making.
>
> The community develop local initiatives for its own conservation and education programs within the Paulatuk Planning Area. (Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1989:30)

In terms of implementing the plan, the community agreed, among other responsibilities, to:

> monitor the state of the wildlife and habitats in the Paulatuk Planning Area, and report any concerns to the joint management bodies through the Hunters and Trappers Committee and the Inuvialuit Game Council.

> through its Hunters and Trappers Committee, regulate Inuvialuit harvesting using bylaws and **traditional conservation methods**, when this is recommended through community monitoring, by the joint management committees or the Inuvialuit Game Council. (my emphasis) (Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1989:32)

In addition, the community, together with the WMAC (NWT) and the FJMC, agreed to cooperatively "develop a program for recording traditional Inuvialuit knowledge of the wildlife, the land, and conservation practices" (Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1989:33).[3] The recommendations and assumed responsibilities outlined above are the strongest affirmation yet within the co-management regime about the value of Inuvialuit self-regulation. While it might be overly optimistic to suggest that the plan will lead to some form of integration, there is the potential for an unprecedented level of interaction between the two systems of renewable resource management with the implementation of this plan.

While both the regional and community plans acknowledge the value of local knowledge and conservation practices and the need for both to become a part of broader conservation efforts, it remains to be seen how this process will occur. A specific process is not outlined in either plan. Additionally, it remains to be seen how the recommendations concerning indigenous knowledge will be implemented and how

---

[3] Issues around documenting and recording indigenous knowledge are addressed in Sections 3.4 and 8.3.

these will shape renewable resource management at the regional and community levels. Two questions arise which only implementation of the plans can provide answers to: What specific role is envisioned for local knowledge and traditional conservation practices in the context of the plans and the co-management bodies? Will the community plan foster a cooperative management approach at the local level where Inuvialuit knowledge and conservation practices are accorded an equal role?

7.2.3 Char Fishery Closures - Regulatory Initiatives by the Communities

The conservation plans centre on the possibility of a more clearly defined role for local knowledge and conservation practices within the WMAC (NWT) and the FJMC, rather than how they are presently manifest in the actions of hunters and fishers. This belies the fact that the experience of the harvesters does play an active role in both the co-management bodies. The endurance of Inuvialuit self-regulation has been highlighted by requests from two HTCs that the FJMC make recommendations for the closure of local subsistence fisheries.

In the mid-1980s, harvesters from Aklavik became concerned about reduced subsistence catches of char from the Big Fish River. It was thought that the reduced catches stemmed from overharvesting or natural declines of local fish populations. In response to requests from the Aklavik HTC,

the FJMC recommended that DFO implement a regulatory amendment to temporarily suspend all fishing activities on the river and its tributaries (Fisheries Joint Management Committee, 1989:6; Interview with V. Gillman, May 16, 1989). Although the process for regulation changes had often in the past taken months, if not years, the recommendation was accepted and implemented in two weeks. The Hornaday River, located near Paulatuk, was similarly closed for several years following requests from that community's HTC (Interview with N. Snow, May 16, 1989). In both instances, the HTCs agreed that their communities' subsistence fisheries should remain closed until stock assessments could demonstrate that fish populations had recovered (Fisheries Joint Management Committee, 1989:6). The HTCs also insisted that community members participate in such research and that the FJMC continue to closely consult with the HTCs to encourage information sharing by both bodies. The need for this type of cooperation is emphasized in the Paulatuk Conservation Plan:

> The community can regulate its own fishing, but it cannot manage a fish population which may migrate outside of the community's area of influence. (Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1989:30)

According to one interviewee, these are likely the first instances of native harvesters' communities requesting the closure of their own subsistence fisheries (Interview with V. Gillman, May 16, 1989). In addition, the joint approach to the implementation of specific regulations exemplified here has resulted in a greater level of cooperation between

harvesting communities and government regulators, with the FJMC acting as a communication link. Most importantly, this case study represents both an example of effective action taken by the FJMC and an indication of the maintenance of local knowledge concerning subsistence fisheries in Aklavik and Paulatuk. Similar to Tuktoyaktuk's request for a grizzly bear quota, the awareness of the need for a closure of the fisheries came from within the communities.

7.2.4 The Aklavik HTC's Application to Harvest One Bowhead Whale

The char fishery closures are successful examples of where indigenous self-regulation has played an instrumental role in the deliberations of the FJMC. The following case study documents an instance where local-level knowledge may have been affirmed at the co-management level, but was denied by government authorities with final decision-making power. The following discussion and analysis reveals some of the many barriers to fully valuing harvesters' interests and self-regulatory institutions when an issue dealt with by the FJMC transcends regional political considerations. Most importantly, the potential outcome of this issue may be that the maintenance of Inuvialuit cultural traditions and knowledge about a marine mammal species are threatened.

In 1988, the Aklavik HTC prepared a comprehensive proposal to harvest one bowhead whale of the Western Arctic stock from the inshore Beaufort Sea (Joint Secretariat,

1989:2-3).[4] Over countless generations, the Inuvialuit had conducted an annual summer hunt of bowhead whales off the coast of the Alaskan North Slope, accumulating and passing on highly-developed hunting skills and a detailed knowledge about the biology and migratory behaviour of the bowhead (Doubleday, 1989:223). Their impact on the Western Arctic stock was minimal (Martell et al, 1984:26). It was European and American whalers who decimated the stock, taking approximately 20,000 whales between 1848 and 1948; commercial whaling ended in 1934 (Joint Secretariat, 1989:1). There are Elders in the community who hunted bowheads in their youth and a number of residents have Alaskan relatives who are involved in a subsistence hunt. However, the Inuvialuit have not been able to carry out such a harvest for several decades, despite strong interest in resuming the traditional hunt before the knowledge of the Elders is permanently lost (Interview with L. Harwood, May 11, 1989). In accordance with the International Whaling Commisssion's (IWC) classification of the bowhead as an endangered species, the Canadian federal government has placed severe restrictions on the hunting of bowheads.

In recent years, the only hunting of bowheads has been an ongoing subsistence harvest of the Western Arctic stock by the Alaskan Inupiat regulated under quota by the IWC; in 1989

---

[4] The Western Arctic stock of the bowhead whale is discussed in more detail in Section 2.2.1.

the quota was 41 whales (Joint Secretariat, 1989:1). The organization representing the Inupiat whalers, the Alaska Eskimo Whaling Commission (AEWC), spends at least several hundred thousand dollars a year studying the bowhead and supporting the case for a sustainable subsistence hunt (Interview with L. Harwood, May 11, 1989). Many consider the AEWC, which participates in a successful co-management arrangement, the world's foremost experts on bowhead whale biology and the present state of the Western Arctic population (Freeman, 1989B; Interview with L. Harwood, May 11, 1989). The research it conducts, combining both scientific methods and the knowledge and experience of the Inupiat whaling crews, has demonstrated that the Western Arctic stock could easily sustain the loss of one whale (Interview with L. Harwood, May 11, 1989).

The Aklavik HTC's detailed application for a license to harvest one bowhead thoroughly explained all aspects of the proposed hunt, including information about:

> the history behind bowhead hunting and previous applications, the subsistence and cultural need for a hunt, benefits of the hunt to science, and details about the hunt location and timing, hunting parties, who will be responsible for the conduct of the hunt, and about processing, transporting, allocating and storing the whale product. (Joint Secretariat, 1989:3)

Following an endorsement by the IGC, the application was referred to the FJMC which unanimously supported it and made a recommendation to the minister of DFO that a license be granted to the community (Joint Secretariat, 1989:3). The

minister rejected the recommendation citing concerns about the international political and economic ramifications that could ensue if Canada was to grant a license to hunt a member of an endangered species (Interview with V. Gillman, May 16, 1989). With this rejection, dangerous precedents were set - the minister failed to respond to the FJMC's recommendation within 30 days as required under the IFA (sec. 14(66)) and ignored other key requirements of the legislation. Compounding the problem, the minister announced the decision in a radio interview with the press before formally submitting it to the FJMC (Interview with L. Harwood, May 11, 1979).

According to several interviewees, the minister's actions have been an exception todate and, in addition, the political nature of the issue makes it "an anomaly" (Interview with V. Gillman, May 16, 1989). Every other recommendation submitted to the minister of DFO, up until May, 1989, had been accepted and quickly implemented (Interview with B. Bell, May 8, 1989). However, this case study does constitute the first "controversial," challenging issue dealt with and could be an indication of what will happen with similar issues.

What then are the implications of this course of events? The minister's rejection of Aklavik's proposal not only contradicted the conservation principle of the co-management regime under the IFA (sec. 14(1) (Interview with L. Harwood, May 11, 1989), but also the agreement's underlying principle about the preservation of Inuvialuit cultural identity and

values (sec. 1(a)). In this light, the FJMC could be seen as simply a body with advisory capacity that is inserted into an oppressive system of renewable resource management where traditional knowledge, cultural identity, and conservation principles are still subordinate to politics. At the very least, this case study is indicative of the inherent weakness of a co-management body that can only advise government managers. Where a government agency has final discretionary power with respect to a co-management body's recommendations, this conceivably calls into question all decisions made by the body which do not coincide with agency policy. Co-management bodies should accord native harvesters with a strong voice in all matters affecting them, not just those that are easily agreed upon by management agencies and harvesters' organizations. In a region undergoing as much change as the Western Arctic, problematic issues are inevitable, as are differences of opinion between the two groups.

Doubleday (1989), who has worked with COPE, the Inuit Tapirisat of Canada, and the Inuit Circumpolar Conference, comments on the potential loss of Inuvialuit traditions and knowledge of the bowhead whale:

> I have a heard an old man who remembers the traditional aboriginal whaling techniques used by the Inuvialuit sing an "aigoan," one of the songs used to make the whale light and easy to pull. He could teach the young people much about their heritage as bowhead hunters, but there is no such hunting to teach. One by one the old people are dying and with them goes a remarkable past which was central to the culture and identity of a people. The loss is not just that of the Inuvialuit: their knowledge of the whale and the traditional harvest could benefit

all managers. (Doubleday, 1989:223)

One Inuvialuit representative voiced the frustration that the minister's decision was a rejection of Inuvialuit cultural needs and a denial of Inuvialuit knowledge and tradition regarding subsistence harvesting, two principles entrenched in the IFA (secs. 1(a) and 14(5))) (Interviewee requested anonymity). Furthermore, the minister made a politically-based decision that superseded conservation considerations, a further contradiction of the IFA. Perhaps the most unfortunate outcome of this issue is the potential loss of the knowledge of the Elders about the bowhead whale, which non-native scientists admit they know very little about, and a cultural attachment to a marine mammal species and its habitat. The loss of an integral element of Inuvialuit identity is something that could never be measured quantitatively or adequately redressed through compensation. As one Inuvialuit person has said: "As the sea is laying there, we look at it, we feed from it and we are really part of it" (Norah Ruben quoted in Wildlife Management Advisory Council and Fisheries Joint Management Committee, 1988:1).

7.3 The Prospects for Integration of Inuvialuit Self-Regulation and State-Based Management Within the IFA Co-Management Regime

Given the preceding examination, as well as the general overview of the co-management regime provided in Chapter 6, there is a basis for drawing some conclusions about the second

primary research question posed in this thesis, adapted slightly in Section 7.1. Are there indications that the FJMC and the WMAC (NWT) is fostering or moving towards an integration of state-based management and Inuvialuit self-regulation? To-date, the state-based, scientific system continues to predominate in the approach to wildlife and fisheries management taken by the co-management bodies. Research results, which provide a context for the following discussion, are summarized in the two tables below. Table 7.1 denotes the barriers to a full integration of the two systems of renewable resource management under the IFA co-management regime and Table 7.2 delineates evidence of specific steps towards a partial integration.

Most interviewees stated that no cultural or linguistic barriers to Inuvialuit participation on the co-management bodies existed (refer to criterion (c) in Section 5.2.2). However, by the admission of some non-native individuals, there are residents in the communities, particularly Holman, who could not be appointed to the co-management bodies because they do not speak English. For a number of people in the older generation, Inuvialuktun is their original tongue; English is spoken infrequently. Sadly, these are often the people with the most experience in "living on the land."

A multitude of other barriers have arisen because the co-management regime uses very different modes of communication and interaction from native communities. One

TABLE 7.1: Barriers to Full Integration of the Two Systems of Renewable Resource Management Under the IFA Co-Management Regime

* the language of the regime, with few exceptions, is English;
* the bureaucratic setting of the regime - it's exclusion potential Inuvialuit participants;
* the IFA is a complicated document, not easily interpreted or understood;
* government representatives sometimes overemphasize applying the exact wording of the IFA, at the expense of effective management;
* the failure to more fully incorporate Inuvialuit modes of communication and interaction;
* the centralization of key wildlife and fisheries management activities, including calculation of quotas, within the regime;
* the subordination, in some instances, of the IGC and the HTC's to the regime;
* the WMAC's (NWT) lack of funding for research;
* the advisory role of the regime;
* the regime's activities' heavy leaning towards the state-based, scientific perspective;
* the domination of the regime by the Joint Secretariat;
* the composition of upper-level support staff - almost all non-native;
* some racist and paternalistic attitudes among non-native participants in the regime.

TABLE 7.2: Evidence of Steps Toward Integration of the Two Systems of Renewable Resource Management Under the IFA Co-Management Regime

* the high level of Inuvialuit participation in fisheries research programs carried out by the FJMC;

* there have been cases where the process for wildlife **and** fisheries regulatory change has been initiated by the communities (see Sections 7.2.1 and 7.2.3);

* traditional knowledge has increasingly been recognized by some non-native participants as a legitimate and invaluable source of information (see Section 7.2.3);

* harvesters' knowledge has formed the basis for management activities carried out by the FJMC and the WMAC (NWT) in several instances (see Section 6.4.2);

* the regional and Paulatuk conservation plans heavily emphasize the need to record and integrate traditional knowledge and experience into all levels of decision-making;

* traditional conservation practices are legitimized in the Paulatuk plan;

* in some instances, the IFA has been interpreted by the FJMC and the WMAC (NWT) to include more local-level participation than is required under the co-management provisions or that was envisioned by the federal government during negotiations.

small example illustrates this aptly: the bureaucratic system relies on the use and dissemination of much paper work. Self-regulatory institutions, in contrast, are rooted in the oral traditions of Inuvialuit culture where information is passed along and shared through word of mouth. To exclude Inuvialuit language and oral traditions is to exclude an integral element of self-regulation. Although some efforts have been made at reducing paper work, there are indications that this is still a problem (Interview with L. Treseder, May 11, 1989). In addition, the former chair of the EIRB felt that Inuvialuit representatives were often hesitant about asserting their opinions in meetings (Interview with C. Templeton, May 23, 1989). He attributed this to the behaviour and attitudes of the attending government managers, who he said, effectively silenced Inuvialuit members on a number of occasions. Similar to many other native-non-native forums in the North, it is native people who must once again adapt, compromise, and use the language of the "majority."

Cultural and linguistic barriers to Inuvialuit participation must be considered seriously because the number of potential Inuvialuit members is further limited by other factors. As stated in Section 2.4, a large proportion of the Inuvialuit population is aged 15 years and under. After excluding the hunters and trappers who express discomfort about the bureaucratic setting of the regime, who do not speak English, or who do not have time to participate, only a

limited number of adult harvesters with experience who are willing to become active members of the co-management bodies remain. Clearly, part of this problem stems from the fact that Inuvialuit members are not paid for their time spent outside meetings doing outreach activities, such as canvassing community members on issues being considered by the co-management bodies or visiting other communities (Interview with L. Treseder, May 11, 1989). Time is precious for those people who spend long periods on the land, particularly given the high costs associated with hunting and trapping. Fairer remuneration of Inuvialuit representatives should be seriously considered.

With respect to criterion (c) discussed in Section 5.2.3, it would appear that the FJMC and WMAC (NWT) are beginning to develop a relationship of trust and cooperation with the community HTCs. While still shaky at times, this emerging relationship suggests that with time the co-management bodies will draw increasingly on the knowledge and wisdom of Inuvialuit harvesters. As several Inuvialuit interviewees commented, they bring their experience as active harvesters of arctic char, beluga whales, polar and grizzly bears, caribou, and geese to the meetings of the FJMC and WMAC (NWT) and expect that their knowledge of wildlife and fisheries and their habitat will be respected and incorporated into decisions. Their direct participation as members of the co-management bodies means that at the very least local knowledge

is presented and considered in the deliberations of the FJMC and WMAC (NWT) (this was echoed by most non-native participants in the two bodies interviewed). For example, much of the information used for test fisheries carried out in Prince Albert Sound came from members of the community of Holman (Interview with V. Gillman, May 16, 1989). In an interview, the chair of the FJMC commented that an important purpose of the co-management regime is "to combine scientific studies and management methods and local wisdom and knowledge" (B. Bell, May 8, 1989).

As suggested in criterion (d) in Section 5.2.3, regulatory enforcement under a co-management regime should provide opportunities for local-level self-regulatory practices, in addition to state-based methods. According to Gunn et al (1988), examples of such cooperation have begun to occur elsewhere in the Canadian North as a result of informal agreements between Inuit harvesting or Elders' organizations and local or regional GNWT managers. The authors (two Inuit harvesters and a GNWT renewable resource officer) note that these agreements have promoted and enhanced traditional conservation in communities (refer to criterion (e) in Section 5.2.3). There is no reason why a sharing of enforcement in the Western Arctic should not also occur, given the lines of communication that have developed with the establishment of the IFA co-management bodies. The participation of the Tuktoyaktuk HTC in the calculation and enforcement of the

grizzly bear quota west of the Anderson River (see Section 7.2.1) suggests that cooperative regulation could become more widespread in the region. Indeed, as noted in Section 7.2.1, the quota was initiated by the community and would have not been set without their participation at every step of the process. However, such opportunities within the regime for community empowerment in wildlife and fisheries regulation are limited. The FJMC and the WMAC (NWT) retain full responsibility for many aspects of regulation that the IFA could have devolved to the community level. Alternatively, the IFA could have set out formal arrangements for a greater sharing of regulatory activities between the co-management bodies and the communities. It is unclear whether the WMAC (NWT) and the FJMC will continue to develop such informal arrangements outside of their IFA-mandated responsibilities.

As discussed in Section 6.7, the FJMC and the WMAC (NWT) fall within the right half of the conceptual continuum introduced in Section 4.3. Both bodies may, with time, move further along the continuum towards an integration of the two systems of renewable resource management. (Complete integration where self-regulatory practices are accorded an equal role alongside the state system coincides with the left side of the continuum.) However, I argue that their current structure, restricted mandate, and advisory capacity precludes a development of the co-management bodies to a point where traditional knowledge and conservation practices are equally

respected and validated. Furthermore, I assert that under these conditions, the state-based system will continue to define the co-management regime to the exclusion of the modes and characteristics of Inuvialuit self-regulatory institutions. Discussion below focuses on how the inordinate level of control over the regime exercised by the Joint Secretariat contributes to this imbalance.

Usher (1986B:77) has observed that many co-management bodies are "heavily dependent on their technical staffs." My research indicated that such a pattern of dependency has developed in the IFA co-management regime. The implications of the role of the Joint Secretariat (JS) have been alluded to previously and are discussed here in more detail. It is suggested that the JS, which was established to assist the FJMC, the WMAC (NWT), and the other co-management bodies, has been the source of barriers to equal Inuvialuit participation in the regime and to the incorporation of more local-level knowledge in decision-making.

One interviewee noted that the original role of the JS was an administrative one (Interview with C. Templeton, May 23, 1989). This person believed that the JS had developed a far more powerful role than intended for it and as a result, had usurped some of the power of the co-management bodies.[5]

---

[5] The origin of the JS is a provision in the IFA for the establishment of a secretariat to provide technical and administrative support to only the WMAC (NWT) (sec. 14(57)) (Interview with N. Snow, May 16, 1989).

"The Inuvialuit have very little say in the operation of the committees ... as well, Inuvialuit members are excluded completely from the budgetary process" (Interview with C. Templeton, May 23, 1989). Two other interviewees commented that the JS has simply replaced the paternalism and bureaucracy of DIAND in administering Inuvialuit affairs relating to wildlife and fisheries (Interviewees requested anonymity).

As indicated in Chapter 4 the Beverly-Kaminuriak Caribou Management Board decided not to establish a support organization because of concerns that it would be dominated by non-native scientists and personnel and that it might aggravate differences that already exist between government and native representatives. The composition of the JS reflects such a pattern. All but the secretarial and clerical staff are non-native. The Inuvialuit may not want to be involved in administrative matters, as many non-native interviewees stated, but this is not a reason to exclude them from other key aspects of running the regime. Non-native resource staff act somewhat as expert, "third-party" members to the co-management bodies. In the process, there is a substantial risk that the input of those people with the most expertise about the land - Inuvialuit harvesters - is downplayed.

Doubleday (1989) and Pinkerton (1989B) expressed concerns that Inuvialuit organizations and representatives are unduly

influenced by government representatives (refer to criterion (e) in Section 5.2.3) Some of these concerns could be attributed to the JS which exercises much control over the co-management bodies. It is noteworthy is that the staff of the JS with decision-making power are solely non-native. It must be asked whether their agenda will always coincide with the interests of the Inuvialuit? One individual suggested that this has not always been the case, specifying a number of occasions when the staff of the JS had manipulated the co-management process (Interview with C. Templeton, May 23, 1989). It is also interesting that the Executive Director of the JS, a non-native, former civil servant with DIAND, was appointed to a second-term contract despite the efforts of several individuals to hire an Inuvialuit person.

As crucial elements of the co-management regime, where do the IGC and the HTCs fit into the preceding analysis? It appears that the HTCs and the IGC are taking a more assertive role and wielding more political power than the federal negotiators of the IFA originally envisioned. It also seems evident that these organizations are bringing the wisdom from inside their communities to the co-management bodies. Soon after the settlement of the IFA, Usher (1986A) considered the potential role of native harvesting organizations in the NWT in revitalizing the indigenous system. The author warned that there were two impediments to the fulfilment of this role:

> from the perspective of the state management system, these associations are too easily seen as a convenient

> rung at the bottom of the hierarchy through which to implement state policy. The other is that, from the perspective of their members, they may be seen as nothing more than a convenient channel through which to communicate with the state, and their executive may be chosen only as "talking chiefs." It is possible that the Inuvialuit Game Council ... will transcend such roles. (Usher, 1986A:128)

Given the case studies examined in this chapter and the discussion in Chapter 6, it would appear that in many instances this has been the case.

Effective community representation has not always been achieved by the HTCs and the IGC. One of the community HTC directors, an older generation hunter/trapper, commented that he had recently joined the organization because he felt that neither it nor the IGC were sufficiently representing the interests of non-participating harvesters (Interviewee requested anonymity). He also felt that the views and interests of government authorities often took precedence in the FJMC and the WMAC (NWT). This person's dissatisfaction with the regime does not necessarily reflect the opinions of Inuvialuit harvesters, generally. However, it does suggest that Doubleday's (1989) prediction that some of the harvesters involved in the regime may be manipulated by government managers could prove to be accurate.

One territorial government representative on the WMAC (NWT) noted that the involvement of Inuvialuit harvesters, and the incorporation of their knowledge, in the regime occurs more frequently at the level of the IGC (Interview with R. Binne, May 17, 1989). The problem here is that the IGC is not

the body in the co-management framework that is directly linked to government management agencies. That role is performed by the WMAC (NWT).

On a hopeful note, Table 7.2 summarizes evidence, collected during research, that the regime, perhaps inadvertently, is progressing towards a partial integration of state-based management methods and Inuvialuit self-regulation. For example, several of the communities are carrying out fisheries research projects on their own, with an increasing level of independence at all stages of the research process (Interview with V. Gillman, May 16, 1989). Certainly, this type of fisheries research is still framed within, and largely defined by, the context of the state-based system. Nevertheless, such opportunities for the incorporation of indigenous knowledge in the renewable resource management framework are an important first step.

Removal of the barriers listed in Table 7.1 will hasten a progression towards integration of the two systems of renewable resource management. Unless these barriers are addressed the regime will inevitably stall at a point where traditional knowledge and experience are regularly acknowledged but not always made a part of decisions or management efforts. In such a scenario, when harvesters' input clashes with government managers' opinions, it is likely that the former will receive little more than token acceptance.

7.4 Summary

The FJMC and the WMAC (NWT) have experienced varying degrees of success in bridging the gap between the two systems of renewable resource management (see Tables 7.1 and 7.2). The case studies discussed in this chapter reveal that often the success of this effort depends on the issue being dealt with or the activity being undertaken. On the one hand, there has been some success on "safe" issues. The char fishery closures and the Tuktoyaktuk grizzly bear quota are examples of where indigenous self-regulation has played an instrumental role in the activities of the FJMC and the WMAC (NWT), although not without some resistance from the government managers. These case studies also illustrate that the FJMC and the WMAC (NWT) can work outside of, or interpret, the IFA in ways which enhance the incorporation of community interests and aspirations and the integration of local knowledge and conservation practices. On the other hand, the FJMC has experienced failure on a political issue - Aklavik's proposal to harvest one bowhead whale. Similarly, there is the potential for government ministers to reject recommendations made by the EIRB that are not supportive of large-scale hydro-carbon development proposals.

Co-management should not be defined by harvesters' participation solely on "safe" issues at the convenience of management agencies. Co-management can be defined as a dynamic process where harvesters, and the knowledge and

experience that they possess, are granted a **meaningful and equal** role in decision-making for renewable resources. An examination of the FJMC and the WMAC (NWT) has demonstrated that co-management in practice does not always achieve this goal, even when the principle of consistent, meaningful participation is entrenched in land claim settlement legislation. It could also be concluded that delegating a co-management regime with only advisory capacity is not compatible with the principle of a meaningful native role.

CHAPTER 8

CONCLUSIONS

> Today, not surprisingly, the rich new yeast of alternative ideas is coming from ... precisely those groups suppressed or subordinated during the industrial era, with its increasing demands for conformity. ... we see these alternatives emerging from the world's ethnic and indigenous peoples, from subsistence cultures and traditional wisdom ... (Henderson, 1984:65)

8.1 Revisiting the Primary Research Questions

The IFA co-management regime is in a process of evolution. It is therefore not entirely appropriate to pronounce final adjudication on its success at this stage. Berkes (1989C:205), speaking on the oldest co-management regime in the North American North, the James Bay and Northern Quebec Agreement (JBNQA), notes that although it has been operating for over a decade it is still too early to pass judgement. While the co-management bodies under the IFA were more recently implemented, some initial conclusions about the primary research questions posed in this thesis can be made. Analysis of these questions was based on the evaluative framework in Chapter 5. As Doubleday (1989:222) notes, we must look beyond the "idealistic statements of goals and models" regarding co-management that are contained in the IFA. What has been the experience of the co-management bodies to-date? The need for an ongoing evaluation of the IFA co-management regime is addressed in Section 8.2.

8.1.1 Enhancing the Role Of Inuvialuit Harvesters in Renewable Resource Management

An important objective sought by many native peoples through land claims is a direct role in management processes for wildlife and fisheries and the land and water that sustains them (Usher, 1986A:75). Has the co-management regime set up under the IFA provided the Inuvialuit with a direct and more meaningful role in renewable resource management in the Western Arctic? Generally, all Inuvialuit participants in the co-management bodies I spoke with commented favourably about the regime, stressing that they now had a forum in which they could address their concerns and interests in wildlife and fisheries management. However, my analysis has also identified a number of factors that limit the realization of a more complete Inuvialuit role in **all** aspects of management.

As mentioned previously, it is uncertain to what degree the opinions of the Inuvialuit membership of the HTCs, the IGC, and the FJMC and the WMAC (NWT) are representative of the broader Inuvialuit population. The potential for co-optation of participating harvesters was addressed in Chapter 7. Undoubtedly though, the evidence provided in Chapters 6 and 7 suggests that broad, local-level Inuvialuit participation in decision-making has increased. This has been reflected in the adoption of community concerns and priorities in federal and territorial policies and research programs. Furthermore, the WMAC (NWT) and the FJMC have, in a number of instances, facilitated the empowerment of Inuvialuit

harvesters. The role of the communities of Aklavik and Paulatuk in the closure of local arctic char fisheries was a clear indication of this (see Section 7.2.3).

The federal government promotes a model of co-management that accords native people an advisory role (Indian and Northern Affairs Canada, 1987:14). According to Usher (1986A), the co-management bodies envisaged under land claim settlements, including the IFA,

> are not intended to replace the existing state management agencies ... but rather to set policy for them, subject to ministerial approval. They are unequivocably accountable to the respective ministers, rather than to the harvesters or to native people as a group. (Usher, 1986A:119-120)

Clearly, the co-management bodies established under the IFA have not entirely conformed to this model. They often demonstrate their accountability to the harvesters in the communities. This is exemplified by the FJMC's annual community tour (see Section 6.4.2) and the WMAC's (NWT) response to Tuktoyaktuk's request for a grizzly bear quota west of the Anderson River (see Section 7.2.1).

Perhaps with time, the co-management bodies could overcome restrictions placed on them by the IFA by interpreting their role in ways that might more strongly assert Inuvialuit interests at the ministerial decision-making level. This has already started to happen to a small degree. A year after the completion of my fieldwork, the Environmental Impact Review Board (EIRB) interpreted the IFA's co-management Environmental Impact and Screening and Review Process to

insist that the federal Canadian and Oil and Gas Lands Administration (COGLA) respond within 30 days to their recommendations that an exploratory drilling project not be approved (Griffiths, 1990). Because the agency failed to do so, the EIRB took the position that COGLA "can no longer approve the Kulluk Programme under the IFA" (Griffiths, 1990:1-2). Similarly, the FJMC and WMAC (NWT) have interpreted their mandates in ways that further meet the needs of the communities, empower the residents, and strengthen local-level self-regulatory efforts. The co-management bodies do not exercise final decision-making power, however. Under the IFA, this power is exercised by government ministers who are required merely to consider the co-management regime's recommendations on the basis of the principles of the settlement legislation. As several Inuvialuit and non-native interviewees noted, the bowhead issue indicates that the co-management provisions of the IFA, as well as the principles of conservation and cultural identity, can become subordinate to political concerns, despite having a legislative basis (see Section 7.2.4).

The centralization of many management activities within the co-management regime is also problematic. I have argued that this centralization has narrowed opportunities for Inuvialuit local-level participation in regulatory activities, although to different degrees in the two areas of wildlife and fisheries management. Discussion in Chapter 6 focused on

several distinctions between the FJMC and the WMAC (NWT). Because of its broader mandate, larger budget, and more accessible structure, the FJMC provides a stronger role for Inuvialuit harvesters than the WMAC (NWT).

8.1.2 Toward Integrating Traditional Knowledge and State-Based Management

The second primary research question in this thesis centred on co-management in the context of a model that fully integrates the indigenous self-regulatory and state-based systems. According to Freeman (1989A),

> at the same time as various environmental agencies are slowly acknowledging the value of tradition-based alternative systems of management, philosophers are independently beginning to recognize the serious limitations associated with the mechanistic approaches to investigating natural processes, an awareness sparked by recent advances in physics and new approaches to health and healing. The practical, if limited, success of various cooperative management arrangements in northern North America demonstrate that in certain circumstances (often, it seems, precipitated by crisis) resource users and state-management officials can work together effectively to improve resource management. (Freeman, 1989A:106)

Several studies in Pinkerton (1989A) have documented "some of the ways data gathering and analysis under co-management arrangements can become far superior to that performed conventionally" (Pinkerton, 1989B:13). It is evident that some of the government authorities who participate in the IFA co-management regime are now beginning to recognize that wildlife and fisheries research in the Western Arctic must meet the needs of Inuvialuit harvesters. Similarly, there is

a growing awareness that effective research requires the balanced participation of the communities. The preceding two chapters described a number of instances where local knowledge played an instrumental, and perhaps equal, role in research programs. For example, the success of several arctic char fishery studies has been dependent upon harvesters providing information about the location and condition of char populations (Interview with V. Gillman, May 23, 1989).

To what degree is the co-management regime under the IFA facilitating a full integration of the two systems of renewable resource management present in the Western Arctic? This question cannot be conclusively answered, but analysis in Chapter 7 did suggest that the FJMC and the WMAC (NWT) are examples of at least an initial step towards this goal. For perhaps the first time in the history of the NWT, native peoples' profound experience and knowledge of the lands they have traditionally occupied and hunted on has begun to be integrated into institutionalized structures, which are now part of the renewable resource management framework in the Western Arctic. It is also evident that the regime is far from fostering an environment where traditional knowledge and conservation practices are accorded an **equal role** alongside the state-based system.

The presence of a wide range of barriers within the IFA co-management regime effectively excludes a large proportion of the wisdom about the land that rests in the oral traditions

and experience of Inuvialuit harvesters. Consequently, these barriers also prevent a full integration of two important systems of knowledge and management - an integration that is prerequisite to effective, holistic, and sensitive conservation in the Western Arctic. If these barriers are to be removed, immediate attention must focus on three key issues. First, the language, modes of communications, and bureaucratic environment of the regime; second, the attitudes and "cultural baggage" of non-native, government participants; and third, the level of control exercised by the Joint Secretariat.

What should be the agenda for co-management regimes which will be implemented in the future? This case study has suggested that the IFA co-management regime, as well as others currently operating or soon to begin operating, does not conform to many of the key aspects of the co-management model described and advocated in this thesis. The design of future co-management regimes should embody the following: First, co-management bodies must have more than advisory power in order to become a key part of the institutional framework for renewable resource management rather than just an addition to it. Second, government managers must be prepared to fully validate, respect, and incorporate indigenous knowledge and experience. Finally, new forms of co-management must be framed and structured in ways that are comfortable for both native and government participants. A bureaucratic body does

not conform to the model of co-management advocated in this thesis.

8.2 Recommendations

This thesis has identified a number of flaws and barriers within the co-management regime under the IFA that limit progress towards the full integration of state-based management and Inuvialuit traditional knowledge and conservation practices. The following recommendations should be considered in efforts to address these flaws and barriers:

1) The recommendation included in the EIRB's first annual report for a yearly performance review of the regime should be implemented (Environmental Impact Review Board, 1988:7). Such an innovative institution as co-management should be subject to periodic evaluation. It is particularly important to analyze the experience of the IFA co-management regime on the basis of native needs, aspirations, and expectations.

2) The FJMC and the WMAC (NWT) should initiate a process of decentralization and sharing of management activities with the communities. The HTCs and the IGC should be given a much stronger role in the calculation and allocation of wildlife and fisheries harvesting quotas.

3) The co-management regime should affirm and implement the following recommendations in the Paulatuk conservation plan:

> more use of local knowledge, more community involvement in wildlife research and better communication between the community, government agencies, researchers and the joint management groups. (Community of Paulatuk and Wildlife Management Advisory Council (NWT), 1989:30)

This in part requires that there be a more clearly defined process for the incorporation of local knowledge and conservation practices in the activities of the FJMC and WMAC (NWT). Funding should be made available to the community of Paulatuk to enable it to carry out the recommendation to record traditional knowledge.

4) Priority should be given to producing conservation plans for the five remaining Western Arctic communities.

5) There should be some consideration that control of the Joint Secretariat (JS) be transferred to the Inuvialuit. The JS could become an organization similar to the Inuvialuit Regional Corporation or the Inuvialuit Development Corporation (Interview with C. Templeton, May 23, 1989). Under such an arrangement, the IGC should appoint the executive director and chair of the JS.

These recommendations can be applied in the short-term. The purpose is to suggest changes that are realisable given the constraints of the IFA and the fact that slow, incremental progress towards integration of the two systems is a feasible expectation. Nonetheless, more far-reaching recommendations are imperative given the context of the model of co-management presented in Section 4.3. These are discussed in Chapter 7.

8.3 Ensuring Accountability to Native Harvesting Communities in Future Research Efforts

With respect to the study of indigenous self-regulation, there appear to be two academic streams among social scientists doing northern research. One is committed to documenting and asserting the existence of self-regulatory practices by native communities that result in the sustainable use of wildlife, fisheries, and other common property resources. The other, comprising the majority of researchers, is either unaware of the study of self-management, dismisses the presence of this system of management in the North, or argues that much more rigorous analysis is required before conclusions about its existence can be made. While I recognize the value of the work by the former, I feel uncomfortable with an academic framework that suggests that statements by native people about their experience, knowledge, and cultural practices must be legitimized and documented through careful research and analysis, framed entirely by the Western scientific paradigm, in order to be 'official knowledge'. This research indirectly perpetuates the historical invalidation of marginalized peoples, rather than contributing to social change. These are fundamental issues that must be addressed by all social scientists studying indigenous self-regulation and co-management.

In retrospect, I believe that a participatory research framework would have been more appropriate for an examination of this thesis topic. During fieldwork, I began to realize

that the social change context of my research required much more accountability to native harvesters.

Part of this process **must** include consultation with the membership of co-management regimes, particularly native representation. As I mentioned in Section 1.6, there is a real need to ask participants in co-management what they consider to be the most crucial areas for inquiry. In that way, research into co-management can be structured from both within and without.

As outlined by Driscoll and McFarland (1989):

> The researcher should be in contact with the people she/he is studying; there should be provision for feedback between researcher and informants; the researcher's own participation and experience should be a consciously used part of the research process; both conceptualization and methods used for getting information should incorporate the interests and insights of the people being studied. (Driscoll and McFarland, 1989:189)

Participatory methodology as applied to studies of co-management regimes can help to ensure that research will be framed by the needs of native harvesters. Only native people can fully understand and analyze native issues. As this thesis is testimony, the definition of co-management must ultimately be defined for and by native harvesting communities. There remains, however, a responsibility on the part of non-natives to learn about native people, their social and legal struggles, and the necessary changes in structures and systems whereby those rights can be realized.

APPENDIX A: Questionnaire Framework

1) What particular issues/activities is the board/committee/ council focussing on (ie. habitat management for polar bear, responding to development proposals and requests from Ministers for advice or views, or studying harvesting quotas)?

2) Do you believe the board/committee/council is carrying out all the functions for which it is responsible as outlined under the IFA? What functions, if any, have been/are being dealt with inadequately? Why are problems occurring?

3) Do you think the board/committee/council meets often enough?

4) To JS staff: What is the source of funding for the board/committee/ council? Who provides funding for the technical and administrative functions of the Joint Secretariat?
To each individual: Do you believe the board/committee/ council is adequately funded - ie. is funding sufficient for the board/committee/council to fulfill its mandate? Does the board/committee/council have access to the resources it may need (ie. for the collection of information) in the course of policy-making or making recommendations to government on specific issues? Do you believe the funding arrangements are fair and equitable?

5) Has membership on the board/committee/council been fairly consistent? Why has this occurred/not occurred?

6) Do you believe the board/committee/council has experienced consensus decision-making and cooperation? How often, if ever, have conflicts arisen? How have these conflicts been resolved? What does the board/committee/ council do if members can not agree over a particular issue? How often is an issue put to a vote?

7) To government representatives: What strategies have been employed to overcome cultural and linguistic barriers to a) Inuvialuit involvement on the bodies and b) effective Inuvialuit-non-native interaction, in general? Do you think these measures have been successful? Have efforts been made to incorporate Inuvialuit modes of communication and decision-making in meetings?
To Inuvialuit representatives: How do you feel about the way meetings of the board/committee/council are held? Are you satisfied with the way board/committee/council decisions are made? How does this process occur? If dissatisfied, how do you think this process could be improved?

8) Do you think the board/committee/council has strong ties to the communities? How about the entire co-management regime? What has been done to create and/or enhance and strengthen ties with the communities? Have the communities been supportive and cooperative; especially with respect to harvesting quotas determined by the WMAC (NWT) and the FJMC? How do you think Inuvialuit harvesters, in general, feel about the regime? How have non-native community members responded to the regime?

9) To government representatives: Do you believe the board/committee/council, and the co-management regime itself, has resulted in a more direct and tangible role for the Inuvialuit in renewable resource management? Has it led to an assertion of their interests in policy- and decision-making? To what degree? Do you believe this has been satisfactory for the Inuvialuit? If not, what problems have arisen, and how might they be solved?
To Inuvialuit representatives: Do you feel that your involvement on the board/committee/council, and the involvement of Inuvialuit hunters and trappers on all bodies, has led to more direct and meaningful Inuvialuit participation in renewable resource management? Why/why not? If not, what do you think has prevented this? How might these obstacles be overcome? Do you think your involvement on the board/committee/council provides you a satisfactory opportunity to talk about Inuvialuit interests in resource/environmental issues? Do you feel that your interests are recognized by government members and incorporated in board/committee/council decisions and recommendations? (Ask about specific circumstances.)

10) To government representatives: How do you think the Inuvialuit approach to resource management differs from that of the territorial/federal government? In what ways has the board/committee/council drawn upon Inuvialuit experience and knowledge concerning renewable resources? How do you think this has affected government institutions (ie. has this led to a greater awareness of the Inuvialuit view of wildlife and fisheries, and their traditional knowledge and conservation practices?)?
To Inuvialuit members: Do you think government representatives have recognized your knowledge about the land? How often do government representatives ask you for advice about a particular area, wildlife species, fish species, etc? Do you think your involvement on the board/committee/council, and the involvement of other community members, has created greater awareness of the value of, and necessity for, Inuvialuit participation in management?

11) To what degree has the board/committee/council influenced actions and decisions by the territorial and federal

governments? Do you think that the discretionary nature with which ministers may respond to board/committee/ council recommendations weakens the co-management regime? Have situations arisen where government has rejected or modified board/committee/council recommendations?

BIBLIOGRAPHY

Acheson, James M. (1989). "Where Have All the Exploiters Gone? Co-Management of the Maine Lobster Industry," in Common Property Resources - Ecology and community-based sustainable development. ed. Fikret Berkes. London: Belhaven Press.

Allison, Lorraine (1978). "Caribou: Management of a Vital Resource," in Northern Transitions, Volume II - Second National Workshop on People, Resources, and the Environment North of 60. eds. Robert F. Keith and Janet B. Wright. Ottawa: Canadian Arctic Resource Committee.

Anderson, Toby (1988). "Question and Discussion Period," in James Bay and Northern Quebec: Ten Years After. eds. Sylvie Vincent and Garry Bowers. Montreal: Recherches Amerindiennes au Quebec.

Andrews, Thomas D (1988). "Selected Bibliography of Native Resource Management Systems and Native Knowledge of the Environment," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

Arnstein, S (1969). "A ladder of citizen participation." Journal of the American Institute of Planners. 35, 216-224.

Association of Canadian Universities for Northern Studies(1988). Ethical Principles for the Conduct of Research in the North. Ottawa: Association of Canadian Universities for Northern Studies.

Baker, David (1982). Eastern Arctic Study Case Study Series: The Alaska Native Claims Settlement. Kingston: Institute of Local Government and Centre for Resource Studies, Queen's University.

Bankes, Nigel D. (1987). "The Place of Land-Use Planning in the TFN Claim," in Hinterland or Homeland? Land-Use Planning in Northern Canada. eds. Terry Fenge and William E. Rees. Ottawa: Canadian Arctic Resources Committee.

Beaufort Sea Environmental Assessment Panel (1984). Beaufort Sea Hydrocarbon Production and Transportation - Final Report of the Environmental Assessment Panel. Ottawa: Minister of Supply and Services Canada.

Berger, Thomas R. (1977). Northern Frontier Northern Homeland - The Report of the Mackenzie Valley Pipeline Inquiry: Volume One. Ottawa: Minister of Supply and Services Canada.

Berger, Thomas (1985). Village Journey - The Report of the Alaska Native Review Commission. New York: Hill and Wang.

Berkes, Fikret (1981A). "The Role of Self-regulation in Living Resource Management in the North," in Proceedings: First International Symposium on Renewable Resources and the Economy of the North. ed. Milton M. R. Freeman. Ottawa: Association of Canadian Universities for Northern Studies.

Berkes, Fikret (1981B). "Fisheries of the James Bay Area and Northern Quebec: A Case Study in Resource Management," in Proceedings: First International Symposium on Renewable Resources and the Economy of the North. ed. Milton M. R. Freeman. Ottawa: Association of Canadian Universities for Northern Studies.

Berkes, Fikret (1982). "Waterfowl Management and Northern Native People With Reference to Cree Hunters of James Bay." Musk Ox. 30, 23-35.

Berkes, Fikret (1988). "Environmental Philosophy of the Chisasibi Cree People of James Bay," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

Berkes, Fikret (1989A). "Cooperation from the Perspective of Human Ecology," in Common Property Resources - Ecology and community-based sustainable development. ed. Fikret Berkes. London: Belhaven Press.

Berkes, Fikret, ed. (1989B) Common Property Resources - Ecology and community-based sustainable development. London: Belhaven Press.

Berkes, Fikret (1989C). "Co-Management and the James Bay Agreement," in Co-Operative Management of Local Fisheries -New Directions for Improved Management and Community Development. ed. Evelyn Pinkerton. Vancouver: University of British Columbia Press.

Berkes, Fikret and M. Taghi Farvar (1989). "Introduction and overview," in Common Property Resources - Ecology and community-based sustainable development. ed. Fikret Berkes. London: Belhaven Press.

Berkes, Fikret and David Feeny (1990). "Paradigms Lost - Changing Views on the Use of Common Property Resources." Alternatives. 17, No. 2, 48-55.

Blanchard, Kathleen (1987). "Strategies for the Conservation of Seabirds on Quebec's North Shore and Geese on Alaska's Yukon-Kuskokwim Delta: A Comparison," in Transactions of the Fifty-second North American Wildlife and Natural Resources Conference - Sharing Resource Challenges, Opportunities and Responsibilities. ed. Richard E. McCabe. Washington, D.C.: Wildlife Management Institute.

Booth, Annie L. and Harvey L. Jacobs (1990). "Ties that Bind: Native American Beliefs as a Foundation for Environmental Consciousness." Environmental Ethics. 12, 27-43.

Bourque, Jim W. (1986). "Observations from the Trapline," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Bourque, Jim (1987). 'Panel on "The emerging role of native organizations in wildlife management in Canada's North" (5) Discussion," in Transactions 1987 - Fifty-First Federal-Provincial/Territorial Wildlife Conference. Ottawa: Minister of Supply and Services Canada.

Braham, Howard W. (1984) "The Bowhead Whale, Balaena mysticetus." Marine Fisheries Review. 46, No. 4, 45-53.

Brody, Hugh (1976). "Land Occupancy: Inuit Perceptions," in Inuit Land Use and Occupancy Project - Volume One: Land Use and Occupancy. ed. Milton Freeman Research Limited. Ottawa: Minister of Supply and Services Canada.

Brody, Hugh (1988). Maps and Dreams - Indians and the British Columbia Frontier. Vancouver: Douglas and MacIntyre Ltd.

Canadian Arctic Resources Committee, ed. (1988A). "Seminar 1 - Report of the Task Force to Review Comprehensive Claims Policy: A Public Review," in National Symposium on the North: Changing Times, Challenging Agendas - Economic and Political Issues in Canada's North. Canadian Arctic Resources Committee, ed. Ottawa: Canadian Arctic Resources Committee.

Canadian Arctic Resources Committee, ed. (1988B). "Seminar 2 - The Role of the Northern Community in the Management of Northern Resources," in National Symposium on the North: Changing Times, Challenging Agendas - Economic and Political Issues in Canada's North. Canadian Arctic Resources Committee, ed. Ottawa: Canadian Arctic Resources Committee.

Canadian Wildlife Service (1989). "The Beverly and Kaminuriak Caribou Management Board - A model for cooperation." Sustainable Development. 10, No. 2, 7.

Carpenter, A. (1987). 'Panel on "The emerging role of native organizations in wildlife management in Canada's North" (2) - Inuvialuit Interests in Wildlife,' in Transactions 1987 - Fifty-First Federal-Provincial/Territorial Wildlife Conference. Ottawa: Minister of Supply and Services Canada.

Cassidy, Frank and Robert L. Bish (1989). Indian Government: Its Meaning in Practice. Lantzville: Oolichan Books and The Institute for Research on Public Policy.

Caulfield, Richard A. (1988). "The Role of Subsistence Resource Commissions in Managing Alaska's New National Parks," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

Cohen, Fay G. and A. J. Hanson, eds. (1988). Community-based resource management in Canada: an inventory of research and projects. Ottawa: Canadian Commission for UNESCO, People and the Biosphere Program.

Colorado, Pam (1988). "Bridging Native and Western Science." Convergence. 21, 49-68.

Community of Paulatuk and Wildlife Management Advisory Council (NWT) (1990). Paulatuk Conservation Plan - A Plan for the Conservation and Management of Renewable Resources and Lands Around Paulatuk, Northwest Territories.

Condon, Richard G. (1983). Inuit Behaviour and Seasonal Change in the Canadian Arctic. Ann Arbor: UMI Research Press.

Council for Yukon Indians (1984). "Submission on Renewable Resources," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60. ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Cournoyea, Nellie (1986). "People, Policy, and Practice: the Northwest Territories Approach to Renewable Resource Management," in Arctic Science Policy and Development, Proceedings: A UNESCO International Conference. eds. Milton M. R. Freeman and Charles W. Slaughter. Washington: United States People and the Biosphere Program.

Crowe, Keith J. (1974). A History of the Original Peoples of Northern Canada. Montreal: McGill - Queen's University Press.

Curley, Tagak (1989). "An informal interview with the KWF president." Caribou News. 8, No. 6, 4.

Delancey, Debbie (1985). "Trapping and the Aboriginal Economy." Information North. 5-12.

Delancey, D. J. and T. D. Andrews (1988). "Section VI: Denedeh (Western Arctic)," in Community-based resource management in Canada: an inventory of research and projects. Ottawa: Canadian Commission for UNESCO, People and the Biosphere Program.

Delury, Bob (1986). "The Inuvialuit Land Claim Settlement," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

The Dene Nation (1984). "Aboriginal Rights: The Development of Northern Conservation Policy," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60. ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Department of Indian Affairs and Northern Development (1984). "In All Fairness: A Native Claims Policy, Comprehensive Claims," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60. ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Devall, Bill and George Sessions (1984). "The Development of Natural Resources and the Integrity of Nature." Environmental Ethics. 6, 293-322.

Dome Petroleum Limited, Esso Resources Canada Limited, and Gulf Canada Resources Inc. (1982). Beaufort Sea - Mackenzie Delta Environmental Impact Statement, Volume 5 Socio-Economic Effects.

Donville, Christopher (1989). "Beaufort Sea well faces delay from environmental review." The Globe and Mail. September 7, pp. A1 and A2.

Doubleday, Nancy C. (1989). "Co-Management Provisions of the Inuvialuit Final Agreement," in Co-Operative Management of Local Fisheries - New Directions for Improved Management and Community Development. ed. Evelyn Pinkerton. Vancouver: University of British Columbia Press.

Driscoll, Kathleen and Joan McFarland (1989). "The Impact of A Feminist Perspective on Research Methodologies: Social Sciences," in The Effects of Feminist Approaches on Research Methodologies. ed. Winnie Tomm. Waterloo: Wilfrid Laurier University Press.

Drolet, Charles (1987). 'Panel on "The emerging role of native organizations in wildlife management in Canada's North" (5) Discussion,' in Transactions 1987 - Fifty-First Federal-Provincial/Territorial Wildlife Conference. Ottawa: Minister of Supply and Services Canada.

Drolet, Charles A., Austin Reed, Mimi Breton, and F. Berkes (1987). "Sharing Wildlife Management Responsibilities with Native Groups: Case Histories in Northern Quebec," in Transactions of the Fifty-second North American Wildlife and Natural Resources Conference - Sharing Resource Challenges, Opportunities and Responsibilities. ed. Richard E. McCabe. Washington, D.C.: Wildlife Management Institute.

East, Ken (1986). "Resource Co-Management in Wood Buffalo National Park: The National Park's Perspective." in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Eggertson, Laura (1990). "Temagami 'worse off' after deal, society says." The Ottawa Citizen. May 1, 1990., p. A5.

Elliott, Ron (1990). "Wildlife managers greet 1990 with new management board." Nunavut - The Magazine of the Tungavik Federation of Nunavut. 9, No. 1, 11-13.

Environmental Impact Review Board (1988). Annual Report - 1986/87, 1987/88. Inuvik: Environmental Impact Review Board.

Environmental Impact Screening Committee (1988). Annual Activity Report - 1986-1988. Inuvik: Environmental Impact Screening Committee.

Epes-Brown, Joseph (1973). "Modes of Contemplation Through Action: North American Indians." Main Currents in Modern Thought. 30, 58-63.

Ernerk, P. (1987). 'Panel on "The emerging role of native organizations in wildlife management in Canada's North" (4) Inuit and Wildlife Management,' in Transactions 1987 - Fifty-First Federal-Provincial/Territorial Wildlife Conference. Ottawa: Minister of Supply and Services Canada.

Eyles, John (1988). "Interpreting the Geographical World - Qualitative Approaches in Geographical Research," in Qualitative Methods in Human Geography. eds. John Eyles and David M. Smith. Cambridge: Polity Press.

Fabijan, Michael (1989). Inuvialuit Harvest Study Methods. Inuvik: Inuvialuit Game Council.

Feit, Harvey A. (1973). "The ethno-ecology of the Waswanipi Cree, or how hunters can manage their resources," in Cultural Ecology: Readings on Canadian Indians and Eskimos. ed. Bruce Cox. Toronto: McClelland and Stewart.

Feit, Harvey A. (1982). "Protecting Indigenous Hunters: The Social and Environmental Protection Regime in the James Bay and Northern Quebec Land Claims Agreement," in Indian SIA: The Social Impact Assessment of Rapid Resource Development on Native Peoples. eds. Charles C. Geisler et al. Ann Arbour: University of Michigan.

Feit, Harvey A. (1984). "Conflict Arenas in the Management of Renewable Resources in the Canadian North: Perspectives Based on Conflicts and Responses in the James Bay Region," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60. ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Feit, H. A. (1986). "James Bay Cree Indian Management and Moral Considerations of Fur-Bearers," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Feit, Harvey A. (1988A). "Self-Management and State-Management: Forms of Knowing and Managing Wildlife," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

Feit, Harvey A. (1988B). "The Power and the Responsibility: Implementation of the Wildlife and Hunting Provisions of the James Bay and Northern Quebec Agreement," in James Bay and Northern Quebec: Ten Years After. eds. Sylvie Vincent and Garry Bowers. Montreal: Recherches Amerindiennes au Quebec.

Feit, Harvey A. (1989). "James Bay Cree Self-Governance and Land Management," in We Are Here - Politics of Aboriginal Land Tenure. ed. Edwin N. Wilmsen. Los Angeles: University of California Press.

Fenge, Terry (1984). "Background Paper - Development in the Beaufort Region: from EARP to Regional Planning," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60. ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Fenge, Terry and William E. Rees, eds. (1987). Hinterland or Homeland? Land-Use Planning in Northern Canada. Ottawa: Canadian Arctic Resources Committee.

Filion, Fern L. and Shane A. D. Parker (1984). Human dimensions of migratory game-bird hunting in Canada. Ottawa: Minister of Supply and Services Canada.

Fisheries Joint Management Committee (1987). Annual Report 1986/87. Inuvik: Fisheries Joint Management Committee.

Fisheries Joint Management Committee (1989). Annual Report 1987/88 1988/89 (Combined). Inuvik: Fisheries Joint Management Committee.

Forsyth, Randy (1988). "The Porcupine Caribou Herd in the Northwest Territories," in The Caribou Are Our Life. ed. Government of the Yukon. Whitehorse: Executive Council Office, Government of the Yukon.

Freeman, Milton M. R. (1979). "Traditional land users as a legitimate source of environmental expertise," in The Canadian National Parks: Today and Tomorrow - Conference II: Ten Years Later. eds. J. G. Nelson et al. Waterloo: Studies in Land Use History and Landscape Change.

Freeman, Milton M. R. (1985). "Appeal to Tradition: Different Perspectives on Arctic Wildlife Management," in Native Power. eds. J. Brosted et al. Bergen: Universitetsforlaget.

Freeman, Milton M. R. (1986). "Renewable Resources, Economies, and Native Communities," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Freeman, Milton M. R. (1989A). "Graphs and Gaffs: A Cautionary Tale in the Common-Property Resources Debate," in Common Property Resources - Ecology and community-based sustainable development. ed. Fikret Berkes. London: Belhaven Press.

Freeman, Milton M. R. (1989B). "The Alaska Eskimo Whaling Commission: Successful Co-Management under Extreme Conditions," in Co-Operative Management of Local Fisheries - New Directions for Improved Management and Community Development. ed. Evelyn Pinkerton. Vancouver: University of British Columbia Press.

Frideres, James S. (1983). Native People in Canada - Contemporary Conflicts. Scarborough: Prentice Hall Canada Inc.

Friesen, B. F. and J. G. Nelson (1978). "An Overview of the Economic Potential of Wildlife and Fish Resources in the Canadian Arctic," in Northern Transitions, Volume II - Second National Workshop on People, Resources, and the Environment North of 60. eds. Robert F. Keith and Janet B. Wright. Ottawa: Canadian Arctic Resource Committee.

Gallagher, Thomas J. (1988). "Native Participation in Land Managment Planning In Alaska." Arctic. 41, No.2, 91-98.

Gibbs, Christopher J. N. and Daniel W. Bromley (1989). "Institutional Arrangements for Management of Rural Resources: Common Property Regimes," in Common Property Resources - Ecology and community-based sustainable development. ed. Fikret Berkes. London: Belhaven Press.

Government of the Yukon (1988). "Living Lightly On This Earth - Aboriginal cultures offer us strategies for survival," in The Caribou Are Our Life. ed. Government of the Yukon. Whitehorse: Executive Council Office, Government of the Yukon.

Griffiths, Gordon (1990). "Environmental Review Under the Inuvialuit Final Agreement: The Kulluk Drilling Programme in Jeopardy." Resources: The Newsletter of the Canadian Institute of Resources Law. No. 31, 1-3.

Gunn, Anne, Goo Arlooktoo, and David Kaomayok (1988). "The Contribution of the Ecological Knowledge of Inuit to Wildlife Management in the Northwest Territories," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

Guthrie, Daniel A. (1971) "Primitive Man's [sic] Relationship to Nature." Bioscience. 21, 721-723.

Hardin, Garrett (1968). "The tragedy of the commons." Science. 162, 1243-1248.

Hargrave, M. R. (1971). "Changing Settlement Patterns Amongst the Mackenzie Eskimos of the Canadian North Western Arctic," in Canada's Changing North. ed. William C. Wonders. Toronto: McClelland and Stewart Limited.

Hartman, G. F. (1981). "Managing Non-Native Renewable Resource use in the North: Rising Expectations in Unproductive Ecosystems," in Proceedings: First International Symposium on Renewable Resources and the Economy of the North. ed. Milton M. R. Freeman. Ottawa: Association of Canadian Universities for Northern Studies.

Henderson, Hazel (1984). "The Warp and the Weft - The Coming Synthesis of Eco-Philosophy and Eco-Feminism." Development: Seeds of Change. 4, 64-68.

Hunt, Constance D. (1988). "The Law and Its Institutions in the North," in Knowing the North: Reflections on Traditions, Technology, and Science. ed., William C. Wonders. Edmonton: Boreal Institute for Northern Studies.

Indian and Northern Affairs Canada (1985). The Western Arctic Claim - The Inuvialuit Final Agreement. Ottawa: Department of Indian Affairs and Northern Development.

Indian and Northern Affairs Canada (1987). Comprehensive Land Claims Policy. Ottawa: Minister of Supply and Services Canada.

Indian and Northern Affairs Canada (1988). The Dene/Metis Claim - Agreement-In-Principle. Ottawa: Department of Indian Affairs and Northern Development.

International Union for Conservation of Nature and Natural Resources (1980). World Conservation Strategy - Living Resources Conservation for Sustainable Development. International Union for Conservation of Nature and Natural Resources.

Inuvialuit Game Council (1988). Annual Activity Report 1987/88. Inuvik: Joint Secretariat.

Jacobs, Peter (1988). "Towards a Network of Knowing and Planning in Northern Canada," in Knowing the North: Reflections on Traditions, Technology, and Science. ed., William C. Wonders. Edmonton: Boreal Institute for Northern Studies.

The James Bay and Northern Quebec Agreement. (1976). Quebec: Editeur officiel du Quebec.

Joint Secretariat (1989). Fact Sheet for Bowhead Whale Application by Aklavik, NWT. March 1, 1989.

Keeping, Janet M. (1989). The Inuvialuit Final Agreement. Calgary: Canadian Institute of Resources Law.

Keith, Robert F. and David A. Neufeld (1988). "Northern Resources Planning and Management Perspectives On Community Self-Determination," in Northern Communities: The Prospects for Empowerment. eds. Gurston Dacks and Ken Coates. Edmonton: Boreal Institute for Northern Studies.

Keith, Robert F. and Alan Saunders, eds (1989). "Environmental Ethics and Wildlife Harvesting," in National Symposium on the North: A Question of Rights - Northern Wildlife Management and the Anti-Harvest Movement. eds. Robert F. Keith and Alan Saunders. Ottawa: Canadian Arctic Resources Committee.

Kelly, P. (1983). "Wildlife Management (session 3), Public involvement - Present and future: Subsistence Hunting," in Transactions 1983 - Forty-Seventh Federal-Provincial Wildlife Conference. Ottawa: Minister of Supply and Services Canada.

Lands Directorate, Environment Canada (1984). "First northern land claim agreement." Land. 5, No. 2, 2.

Langdon, Steve J. (1989). "Prospects for Co-Management of Marine Animals in Alaska," in Co-Operative Management of Local Fisheries -New Directions for Improved Management and Community Development. ed. Evelyn Pinkerton. Vancouver: University of British Columbia Press.

Leblond, Nancy Russell (1979). Porcupine Caribou Herd - International agreements based on wilderness preservation and wildlife management: A study of the Porcupine caribou. Ottawa: Canadian Arctic Resources Committee.

Livingstone, David (1986). Environmental Studies No. 49 - The Northeast Yukon: Development within a Conservation Framework. Ottawa: Minister of Supply and Services Canada.

Mackenzie Delta Beaufort Sea Regional Land Use Planning Commission (1988). Interim Report. Inuvik: Northwest Territories Land Use Planning, Regional Office.

Macpherson, A. H. (1981). "Commentary: Wildlife Conservation and Canada's North." Arctic. 34, 103- 107.

Marshall, Duncan (1986). "Luncheon Address: Native Resource Management At a Turning Point?" in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Martell, Arthur M., Dawn M. Dickinson, and Lisa M. Casselman (1984). Wildlife of the Mackenzie Delta Region. Edmonton: Boreal Institute for Northern Studies.

McCay, Bonnie J. and James M. Acheson, eds. (1987A). The Question of the Commons - The Culture and Economy of Communal Resources. Tuscon: University of Arizona Press.

McCay, Bonnie J. and James M. Acheson (1987B). "Human Ecology of the Commons," in The Question of the Commons - The Culture and Economy of Communal Resources. eds. Bonnie J. McCay and James M. Acheson. Tuscon: University of Arizona Press.

McDonald, Miriam (1988). "An Overview of Adaptive Management of Renewable Resources," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

McGhee, Robert (1976A). "The Nineteenth Century: Mackenzie Delta Inuit," in Inuit Land Use and Occupancy Project, Volume 2: Supporting Studies. ed. Milton M. R. Freeman. Ottawa: Minister of Supply and Services Canada.

McNeely, Jeffrey A. and David Pitt, eds. (1985). Culture and Conservation: The Human Dimension in Environmental Planning. London: Croom Helm.

Mitander, Victor (1989). '"Sharing of expertise" strengthens wildlife boards.' Caribou News. 8, No. 5, 2.

Mitchell, Bruce (1979). Geography and Resource Analysis. London: Longman Group Limited.

Mitchell, Bruce and W. R. Derrick Sewell (1981). "The Emerging Scene," in Canadian Resource Policies: Problems and Prospects. eds. Bruce Mitchell and W. R. Derrick Sewell. Toronto: Methuen Publications.

Monaghan, Hugh J. (1984). "The Caribou Management Board and Its Early Growth," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60.ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Morrell, Mike (1989). "The Struggle to Integrate Traditional Indian Systems and State Management in the Salmon Fisheries of the Skeena River, British Columbia," in Co-Operative Management of Local Fisheries - New Directions for Improved Management and Community Development. ed. Evelyn Pinkerton. Vancouver: University of British Columbia Press.

Morrison, William R. (1983). A Survey of the History and Claims of the Native Peoples of Northern Canada. Ottawa: Indian and Northern Affairs Canada.

National Atlas of Canada. (1974). Ottawa: Macmillan Co. of Canada Ltd. in association with Department of Energy, Mines, and Resources and Information Canada.

Office of Native Claims, Department of Indian Affairs and Northern Development (1984). "Background Paper: Perspectives on Native Land-claims Policy," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60. ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Ophuls, William. Ecology and the Politics of Scarcity. San Francisco: W. H. Freeman and Co., 1977.

Osherenko, Gail (1988). Sharing Power with Native Users: Co-Management Regimes for Arctic Wildlife. Ottawa: Canadian Arctic Resources Committee.

Osherenko, Gail and Oran R. Young (1989). The Age of the Arctic - Hot Conflicts and Cold Realities. Cambridge: Cambridge University Press.

Pearce, Terry (1976). "Inuit and the Land: A Photo-Essay," in Inuit Land Use and Occupancy Project, Volume Two: Supporting Studies. ed. Milton M. R. Freeman. Ottawa: Minister of Supply and Services.

Pelly, David F. (1989). "Opposition to Mining Exploration Increasing in Whale Cove." Caribou News. 8, No.5, 6-7.

Pinkerton, Evelyn (1987). "Intercepting the State - Dramatic Processes in the Assertion of Local Comanagement Rights," in The Question of the Commons - The Culture and Economy of Communal Resources. eds. Bonnie J. McCay and James M. Acheson. Tuscon: University of Arizona Press.

Pinkerton, Evelyn, ed. (1989A). Co-Operative Management of Local Fisheries - New Directions for Improved Management and Community Development. Vancouver: University of British Columbia Press.

Pinkerton, Evelyn (1989B). "Introduction: Attaining Better Fisheries Management Through Co-Management - Prospects, Problems, and Propositions," in Co-Operative Management of Local Fisheries - New Directions for Improved Management and Community Development. ed. Evelyn Pinkerton. Vancouver: University of British Columbia Press.

Rees, William E. (1978). "Development and Planning North of 60: Past and Future," in Northern Transitions, Volume II - Second National Workshop on People, Resources, and the Environment North of 60. eds. Robert F. Keith and Janet B. Wright. Ottawa: Canadian Arctic Resource Committee.

Rees, William E. (1987). "Introduction: A Rationale for Northern Land-Use Planning," in Hinterland or Homeland? Land-Use Planning in Northern Canada. eds. Terry Fenge and William E. Rees. Ottawa: Canadian Arctic Resources Committee.

Reilly, Robin (1989). "The Northern Landscape - A Challenge for Cross-Cultural Design," Landscape Architectural Review. 10, 6-8.

Riewe, R. and L. Gamble (1988). "The Inuit and Wildlife Management Today," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

Roberts, Gail (1986). "Shamanism: Will it Ever be Senses in the Arctic?" Inuit - The Magazine of the Inuit Circumpolar Conference.

Robinson, M. and E. Ghostkeeper (1987). "Native and Local Economies: A Consideration of Economic Evolution and the Next Economy." Arctic. 40, 138-144.

Robitaille, Norbert and Robert Choiniere (1985). An Overview of Demographic and Socio-Economic Conditions of the Inuit in Canada. Ottawa: Indian and Northern Affairs Canada.

Ross, David P. and Peter J. Usher (1986). From the Roots Up - Economic Development as if Community Mattered. Toronto: James Lorimer & Company.

Sage, Bryan (1986). "Terrestrial Mammals," in The Arctic and its Wildlife. ed. Bryan Sage. London: Croom Helm.

Schaefer, O. and J. Steckle (1980). Dietary Habits and Nutritional Base of Native Populations of the Northwest Territories. Yellowknife: Science Advisory Board of the Northwest Territories.

Sewell, W. R. D. and T. O'Riordan (1976). "The culture of participation in environmental decision-making." Natural Resources Journal. 16, 1-21.

Sheldon, Jerome F. (1988). "Oil versus caribou in the Arctic: the great debate." Polar Record. 24, 95-100.

Sibbeston, Nick (1986). "Keynote Address: Economic Development and Renewable Resources in the Northwest Territories," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Sieber, Ernie (1978). "Opinion Paper - Renewable Resource Development," in Northern Transitions Volume II - Second National Workshop on People, Resources, and Environment North of 60. eds. Robert F. Keith and Janet B. Wright. Ottawa: Canadian Arctic Resources Committee.

Smith, Stuart (1986). "Fort Chipewyan and Resources of the Peace-Athabasca Delta," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Smith, T. G. (1986). "Marine Mammals," in The Arctic and its Wildlife. ed. Bryan Sage. London: Croom Helm.

Statistics Canada (1987A). Population and Dwelling Counts - Provinces and Territories: Northwest Territories - Population. Ottawa: Minister of Supply and Services.

Statistics Canada (1987B). Population and Dwelling Characteristics - Census Divisions and Subdivisions, Northwest Territories: Part 1: Profiles. Ottawa: Minister of Supply and Services.

Statistics Canada (1987C). Population and Dwelling Characteristics - Census Divisions and Subdivisions, Northwest Territories: Part 2: Profiles. Ottawa: Minister of Supply and Services.

Stenbaek-Lafon, Marianne(1981). "The Time for Token Eskimo and Second-Hand Information Has Passed - Some notes on the problems of communication between the scientific management sector and Inuit users of renewable resources in the North," in Proceedings: First International Symposium on Renewable Resources and the Economy of the North. ed. Milton M. R. Freeman. Ottawa: Association of Canadian Universities for Northern Studies.

Stirling, Ian (1986). "Research and Management of Polar Bears Ursus Maritimus." Polar Record. 23, 167-176.

Task Force on Northern Conservation (1984). Report of the Task Force on Northern Conservation. Ottawa: Department of Indian Affairs and Northern Development.

Task Force To Review Comprehensive Claims Policy (1986). Living Treaties: Lasting Agreements - Report of the Task Force To Review Comprehensive Claims Policy. Ottawa: Department of Indian Affairs and Northern Development.

Tester, Frank J. (1981). "Northern Renewable Resource Management: Sociological Dimensions of Participation," in Proceedings: First International Symposium on Renewable Resources and the Economy of the North. ed. Milton M. R. Freeman. Ottawa: Association of Canadian Universities for Northern Studies.

Theberge, John B. (1981). "Commentary: Conservation in the North - An Ecological Perspective." Arctic. 34, 281-285.

Usher, Peter J. (1976A). "The Inuk as Trapper: A Case Study," in Inuit Land Use and Occupancy Project, Volume 2: Supporting Studies. ed. Milton M. R. Freeman. Ottawa: Minister of Supply and Services Canada.

Usher, P. (1976B). "Evaluating Country Food in the Northern National Economy." Arctic. 29, 105-120.

Usher, Peter J. (1976C). "Inuit Land Use in the Western Canadian Arctic," in Inuit Land Use and Occupancy Project - Volume One: Land Use and Occupancy. ed. Milton Freeman Research Limited. Ottawa: Minister of Supply and Services Canada.

Usher, Peter J. (1978). "Working Group Paper - Renewable Resource Development in Northern Canada," in Northern Transitions, Volume II - Second National Workshop on People, Resources, and the Environment North of 60. eds. Robert F. Keith and Janet B. Wright. Ottawa: Canadian Arctic Resource Committee.

Usher, Peter J. (1979). Environmental Conservation, Wildlife Management and Native Rights in Northern Canada. Ottawa: Canadian Arctic Resources Committee.

Usher, Peter J. (1982). "Fair game?" Nature Canada. 11, No.1, 4-11, 35-40, 42-43.

Usher, Peter J. (1984). "Property Rights: The Basis of Wildlife Management," in National and Regional Interests in the North - Third National Workshop on People, Resources, and the Environment North of 60. ed. Canadian Arctic Resources Committee. Ottawa: Canadian Arctic Resources Committee.

Usher, Peter J. (1986A). The Devolution of Wildlife Management and the Prospects for Wildlife Conservation in the Northwest Territories. Ottawa: Canadian Arctic Resources Committee.

Usher, Peter J. (1986B). "Devolution of Power in the Northwest Territories: Implications for Wildlife," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Usher, Peter J. (1987). "Indigenous Management Systems and the Conservation of Wildlife in the Canadian North." Alternatives. 14, No. 1, 3-9.

Wagner, M. W. (1986). "Domestic Hunting and Fishing by Manitoba Indians: Magnitude, Composition, and Implications for Management." The Canadian Journal of Native Studies. 6, 333-349.

Waquan, (Chief) Archie (1986). "Resource Co-Management in Wood Buffalo National Park: The Cree Band's Perspective." in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Wenzel, George W. (1986). "Resource Harvesting and the Social Structure of Native Communities," in Native People and Renewable Resource Management - The 1986 Symposium of the Alberta Society of Professional Biologists. Edmonton: Alberta Society of Professional Biologists.

Wheeler, Polly (1988). "State and Indigenous Fisheries Management: The Alaska Context," in Traditional Knowledge and Renewable Resource Management in Northern Regions. eds. Milton M. R. Freeman and Ludwig N. Carbyn. Edmonton: Boreal Institute for Northern Studies.

Whittington, Michael S. (1985A). "Political and Constitutional Development in the N.W.T. and Yukon: The Issues and Interests," in The North. ed. Michael S. Whittington. Ottawa: Minister of Supply and Services.

Whittington, Michael S. (1985B). "Introduction: Northern Studies," in The North. ed. Michael S. Whittington. Ottawa: Minister of Supply and Services.

Wildlife Management Advisory Council (North Slope) (1989). Annual Report May 7, 1988 - March 31, 1989. Inuvik: Wildlife Management Advisory Council (North Slope).

Wildlife Management Advisory Council (N.W.T.) (1988). First Annual Report. Inuvik: Wildlife Management Advisory Council (N.W.T.).

Wildlife Management Advisory Council (N.W.T.) and Fisheries Joint Management Committee (1988). Inuvialuit Renewable Resource Conservation Plan. Inuvik: Joint Secretariat.

Wonders, William C. (1981). "Northern Resources Development," in Canadian Resource Policies: Problems and Prospects. eds. Bruce Mitchell and W. R. Derrick Sewell. Toronto: Methuen.

Wonders, William C. (1987). "The Changing Role and Significance of Native Peoples in Canada's Northwest Territories." Polar Record. 23, 661-671.

Wonders, William C. and Heather Brown (1984). 'Aklavik, Northwest Territories: "The Town that did not Die",' in Northern Ecology and Resource Management - Memorial Essays Honouring Don Gill. eds. Rod Olson, Ross Hastings, and Frank Geddes. Edmonton: The University of Alberta Press.

Zoltai, S. C. and W. W. Pettapiece (1973). Studies of Vegetation, Landform and Permafrost in the Mackenzie Valley: Terrain, Vegetation and Permafrost Relationships in the Northern Part of the Mackenzie Valley and Northern Yukon. Ottawa: Information Canada.

INTERVIEWS

Bell, B. Chair, Fisheries Joint Management Committee, Inuvik, May 8, 1989.

Binne, R. GNWT Representative, Wildlife Management Advisory Council (Northwest Territories), Inuvik, May 17, 1989.

Cockney, R. DIAND Representative, Environmental Impact Screening Committee, Inuvik, May 10, 1989.

Ekootak, M. Member, Holman Hunting and Trapping Committee and Inuvialuit Game Council, Inuvik, May 9, 1989.

Elias, A. Inuvialuit Representative, Wildlife Management Advisory Council (Northwest Territories) and Member, Holman Hunting and Trapping Committee and Inuvialuit Game Council, Inuvik, May 15, 1989.

Erickson, W. Staff, Mackenzie Delta-Beaufort Sea Regional Land Use Planning Commission, Inuvik, May 15, 1989.

Fabijan, L. Staff Biologist, GNWT, Tuktoyaktuk, May 12, 1989.

Fabijan, M. Coordinator, Inuvialuit Harvesting Study, Joint Secretariat, Inuvik, May 15, 1989.

Gillman, V. Area Manager, DFO and Administrator, Fisheries Joint Management Committee, Inuvik, May 16, 1989.

Harwood, L. Resource Person to Fisheries Joint Management Committee and Inuvialuit Game Council, Joint Secretariat, Inuvik, May 11, 1989.

Kuptana, R. Member, Sachs Harbour Hunting and Trapping Committee and Inuvialuit Game Council, Inuvik, May 7, 1989.

Rogers, J. Member, Inuvik Hunting and Trapping Committee and Inuvialuit Game Council, Inuvik, May 10, 1989.

Snow, N. Executive Director, Joint Secretariat, Inuvik, May 16, 1989.

Templeton, C. Former Chair, Environmental Impact Review Board, Victoria, B.C., May 23, 1989.

Treseder, L. Resource Person to Wildlife Management Advisory Council (Northwest Territories) and Inuvialuit Game Council, Joint Secretariat, Inuvik, May 11, 1989.

Usher, P. Ottawa, April 23, 1989.

Wagner, G. Resource Person to Environmental Impact Screening Committee and Environmental Impact Review Board, Joint Secretariat, Inuvik, May 9, 1989.

Wolki, F. Member, Tuktoyaktuk Hunting and Trapping Committee and Inuvialuit Game Council, Tuktoyaktuk, May 13, 1989.

Six people who were interviewed requested that they not be referenced.

END

28-02-92

FIN