PLANNING A COMMON GROUND FOR AN UNCOMMON FUTURE: INDIGENOUS PEOPLE, LAND-USE PLANNING AND SUSTAINABLE DEVELOPMENT IN NORTHERN CANADA

by

PAUL GERRALD SNEED

B.A., The University of California, 1969

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

SCHOOL OF COMMUNITY AND REGIONAL PLANNING

We accept this thesis as conforming

to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

June 1989

© Paul Gerrald Sneed, 1989

67

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of School of Community and Regional Planning

The University of British Columbia
Vancouver, Canada

Date July 11, 1989

DE-6 (2/88)

Abstract

The idea of sustainable development has broad appeal and appears to be a very popular concept. Nonetheless, while being constantly told why we need development that is sustainable, we are not often advised how it can be achieved. This is especially true for northern Canada where some version of "sustainable development" has been advocated since the early 1970s. The main purpose of this thesis is to develop a conceptual framework for sustainable development and evaluate some planning tools that may help accomplish it in Canada's North.

To do this, first the general literature on both sustainable and northern development is reviewed. From this examination, sustainable development is defined and a set of proposed objectives for such development is generated. Second, a study is made of a range of currently available literature on environmental and land-use planning. Using this literature review, and drawing on personal experience, a "model" planning framework is synthesized for evaluating the case studies. Third, this is utilized to evaluate the current land-use planning being done in the Northwest Territories as exemplified by the Lancaster Sound Regional Land Use Plan. Fourth, the "aboriginal alternative" to planning for sustainable development in the North is analyzed. Finally, there is a brief discussion of the implications of this research for evolving planning and political systems which will facilitate the achievement of sustainable development in northern Canada.

Evaluation of the Lancaster Sound Regional Land Use Plan shows that some of the objectives or goals of northern sustainable development have been adopted. These include: 1) an attempt to involve aboriginal people in the planning; 2) an emphasis on conservation and its integration with development; 3) an emphasis on the sustainable harvesting of renewable resources as the primary use of the region; and 4) the recognition of the desirability of some local decision-making regarding land-use. On the other hand, most of the processes necessary for achieving these

objectives are currently underdeveloped or non-existent. Probably the three most important deficiencies exhibited by the Lancaster Sound case are: 1) a failure to integrate economic planning, land-use planning, and environmental assessment into one regional planning system; 2) the lack of a legislated mandate to enforce adhererence to a land-use plan and guidelines; and 3) the continuing overarching centralization of final decision-making regarding land-use planning and control. The persistence of these related problems suggests that the way planning for northern development is being pursued will prevent achievement of sustainability.

This thesis contends that if planning and development is to be sustainable in the North, then it is necessary that something similar to the Tungavik Federation of Nunavut (TFN) proposal for land planning and management by aboriginal governments be implemented immediately. Empowerment of indigenous peoples and their governments would become the cornerstone of planning for sustainable development in the North. It would also take all of us along the path of planning the common ground for an uncommonly sustainable society in the future.

Table of Contents

ABSTRACT....ii

TABLE OF CONTENTS....iv

LIST OF TABLES....viii

LIST OF FIGURES....ix

ACKNOWLEDGEMENTS....x

I. INTRODUCTION....1

1.1 Purpose....2

1.2 Rationale....4

1.3 Methods....8

II. THE SEARCH FOR SUSTAINABLE DEVELOPMENT....10

2.1 Emergence of a Ideology....11

2.1.1 Conservation Comes of Age....11

2.1.2 Onto the International Stage....13

2.1.3 The Sustainable Development Synthesis....16

2.1.4 Canadian Sustainable Development....17

2.1.5 Sustainable Development Ideologies....18

2.2 Implementing the Sustainable Development Concept....20

2.2.1 Defining Conservation and Development....20

2.2.2 The Meaning of Sustainability....21

2.2.3 Sustainable Development Defined....22

2.2.4 The Carrying Capacity Concept....24

2.2.5 Traditional Cultures and Sustainable Development....25

2.3 Northern Development: The Search for a Balance....26

2.3.1 Contradictions in Northern Development....28

2.3.2 Northern Frontier or Northern Homeland: The Berger Inquiry....30

2.3.3 The True Northern Economy....31

2.3.4 Northern Conservation Strategies....32

2.3.5 Inuit Regional Conservation Strategy....33

2.4 Sustainable Development Objectives....35

2.4.1 There Should Be Full Integration of Conservation and Development....35

2.4.2 Ecological Integrity Must Be Maintained....36

2.4.3 There Should Be Fulfillment of Basic H?uman Needs....38

2.4.4 Equity and Social Justice Must Be Assured....39

2.4.5 Cultural Diversity and Self-Determination Should Be Encouraged....40

III. PLANNING FOR SUSTAINABLE DEVELOPMENT....42

3.1 Politics and Planning....43

3.2 The Planning Process....46

3.2.1 Planning Activities....47

3.2.2 Land-Use Planning....48

3.2.3 A Comprehensive Planning System....52

3.3 The Administration of Land-Use Control and Planning....57

3.4 Sustainable Development Processes....61

3.4.1 Goal Seeking Processes....62

3.4.2 Relational Processes....62

3.4.3 Adaptive Processes....63

3.4.4 Integrative Processes....64

IV. TOWARDS NORTHERN LAND-USE PLANNING....66

4.1 Lancaster Sound Land-Use Decision Making....67

4.2 Green Papers: The Lancaster Sound Regional Study, 1980-1982....71

4.3 Forming a Northern Land-Use Planning Policy....76

V. APPLICATION OF LAND-USE PLANNING: THE LANCASTER SOUND CASE....84

5.1 The Lancaster Sound Planning Region....84

5.2 Creating Institutional Structure....86

5.3 Preparing to Plan....92

5.3.1 Background Materials....92

5.3.2 Training to Plan....95

5.4 Identifying Information, Issues and Opportunities....96

5.4.1 Information....97

5.4.2 Community Issues Workshop....98

5.4.3 Lancaster Sound Issues and Opportunities....101

5.5 Proposing Land Uses....103

5.6 The Lancaster Sound Regional Land-Use Plan: First Draft....110

5.6.1 Contents of the Plan....110

5.6.2 Comments on the Plan....115

5.7 The Lancaster Sound Regional Land-Use Plan: Second Draft....119

5.8 The Last Steps....123

VI. EVALUATION OF THE LANCASTER SOUND REGIONAL LAND-USE PLAN....125

6.1 Sustainable Development Objectives....125

6.1.1 Criterion 1: There Should Be Full Integration of Conservation and Development....125

6.1.2 Criterion 2: Ecological Integrity Should Be Maintained....126

6.1.3 Criterion 3: There Should Be Fulfillment of Basic Human Needs....129

6.1.4 Criterion 4: Equity and Social Justice Must Be Assured....130

6.1.5 Criterion 5: Cultural Diversity and Self-Determination Should Be Encouraged....132

6.2 Sustainable Development Processes....134

6.2.1 Criterion 6: Goal Seeking Processes....134

6.2.2 Criterion 7: Relational Processes....135

6.2.3 Criterion 8: Adaptive Processes....137

6.2.4 Criterion 9: Integrative Processes....139

6.3 Northern Land-Use Planning: Where It Stands....140

6.4 The Next Step Towards Sustainable Development.....143

VII. CONCLUSIONS AND PROPOSALS FOR UNCOMMON ACTION.....145

7.1 Planning, Politics and Sustainable Development in the North.....145

7.2 The Aboriginal Alternative for Sustainable Development.....147

7.3 A Sustainable Future for the North: Getting There from Here.....154

List of Tables

I. Sustainable Development Ideologies....19

II. Institutions for Land Use Control and Planning....59

III. Northern Land Use Planning Chronology....82

IV. Planning Process Schedule....93

V. Land Use Planning Then and Now....142

VI. Lancaster Sound and Nunavut Planning....152

List of Figures

1. Map of Northern Canada....3
2. A General Sequence of Planning Activities....49
3. A Comprehensive Land-Use Planning System....56
4. Map of Lancaster Sound....68
5. NWT Land-Use Planning Program Structure....87
6. Sample Sensitivity Map....109
7. Existing and Proposed Protected Areas....127
8. Map of Nunavut....149

Acknowledgement

I was stimulated to wrestle with issues of northern sustainable development and undertake formal study of them at the School of Planning by my "northern" friends, Irving Fox and Tony Pearse. During my time at U.B.C., I was greatly informed and ably guided in my studies by a number of professors, but I wish to single out Julia Gardner, C.S. Holling, Bill Rees and Carl Walters for special thanks.

I wish to acknowledge and thank the administration and staff of the Northern Land Use Planning Office in Yellowknife and the office of the Tungavik Federation of Nunavut in Ottawa for providing me with the information and documentation necessary to carry-out my research. Mark Roseland, one of my "co-conspirators" in The Change the World Group, deserves a special vote of thanks for helping me with the frustrating task of doing the final printing of this document.

Finally, on a personal note, I would like to dedicate this thesis to my parents, Paul and Marie Sneed, for their everlasting moral support of my quixotic career path; and to Ramona Mattix who has given me love, inspiration, and a renewed sense of what community building is all about.

I INTRODUCTION

In the summer of 1986, three international conferences on environment and development were held in Ottawa: a public hearing by the United Nations sponsored World Commission on Environment and Development, the World Conservation Strategy conference, and the Third Biennial Conference on the Fate of the Earth. The participants in each of these conferences were searching for ways to integrate economic goals with environmental concerns to achieve sustainable development (World Media Institute Inc., 1986).

More recently, the World Commission on Environment and Development (also known as the Brundtland commission) helped spread the idea of sustainable development to the "global village" through publication of Our Common Future (1987). In Canada, the Canadian Council of Resource and Environmental Ministers (CCREM) converted the sustainable development notion to their own vision when they published the Report on the National Task Force on Environment and Economy in late 1987. For people living in or concerned about northern Canada, a conference held in Vancouver in early 1988 addressed Advancing Sustainable Development through Northern Conservation Strategies. Finally, in the province of British Columbia alone, at least eight conferences or workshops took place during 1988 focusing on the subject of sustainable development (Sustainable Development Communications Project, 1988).

What is this flurry of talking and writing all about? Although by no means the first to do so, these conferences and reports are grappling with a subject that may be the single most important issue of our time; namely, how can humankind give up or, at least, moderate its dangerous habit of pursuing economic development at the expense of the natural environment? If the number and frequency of public forums on the subject is any indication, sustainable development is being advanced as the

approach which will resolve this problem. Indeed, the idea of sustainable development is becoming so popular that one sees and hears it regularly discussed by media personalities and politicians as well as academics and corporate executives (Keating, 1988: D2).

As popular as the concept of sustainable development appears to be, it has no widely accepted meaning, no clearly stated relationship to other concepts of development, and no obvious means of application. Despite the apparent urgency of integrating environment and development so that we can evolve a sustainable society, none of these recent conferences and reports provide very much practical advice for how this might be accomplished. Indeed, one reviewer has commented:

> Our Common Future claims that we have the ability to make development sustainable....This is all well and good. But how do we achieve it? Our Common Future doesn't tell us. And this is extremely depressing (Barnaby, 1987: 218).

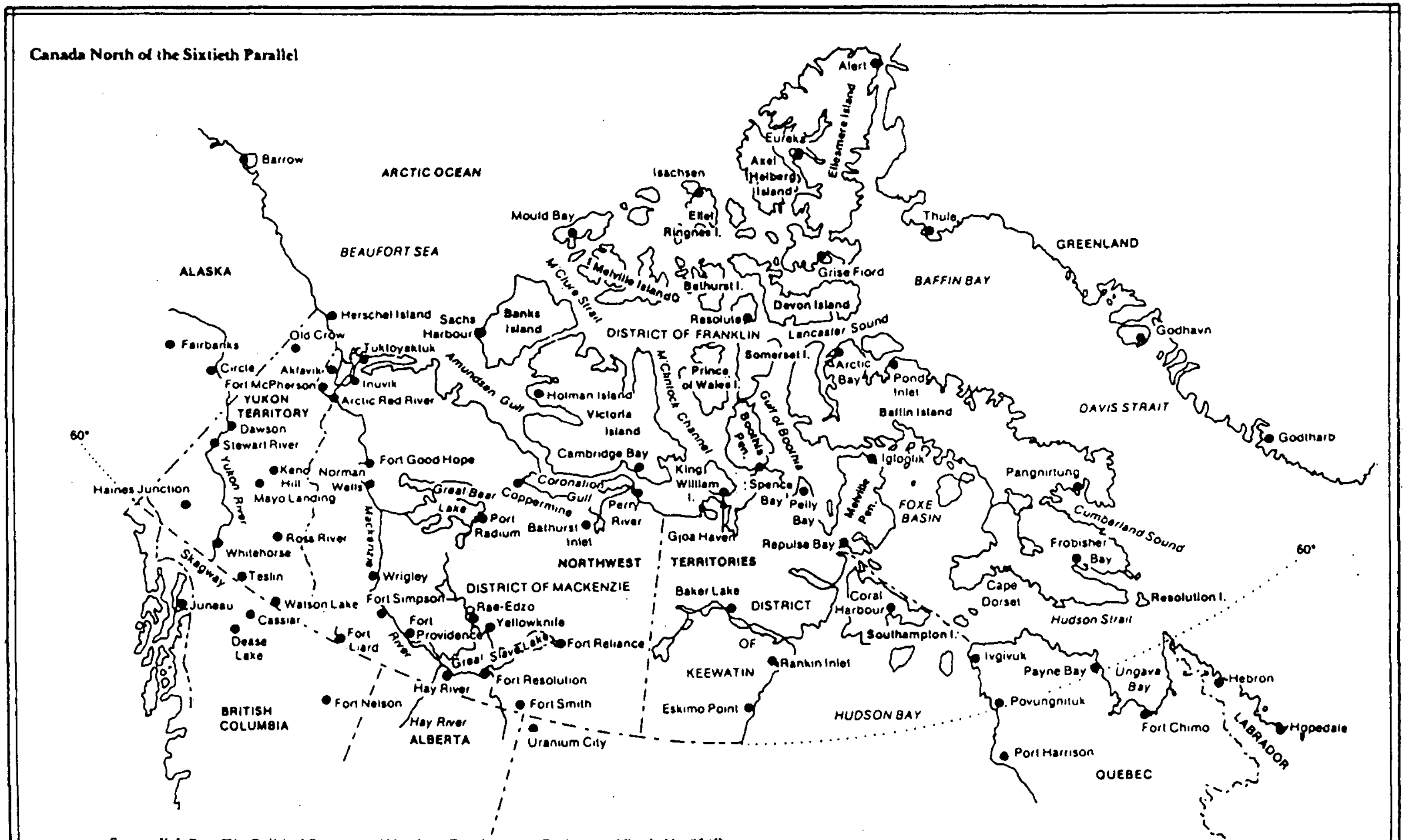
In other words, we are being told why we need sustainable development, but not how it can be achieved.

1.1 Purpose

The purpose of this research is to develop a conceptual framework and describe some decision-making tools that will help accomplish sustainable development. Since planning in the public domain should link knowledge to action (Friedmann, 1987: 38), this study will examine some public planning processes and proposals that may help shed light on how to achieve development that is truly sustainable.

Sustainable development must be understood and implemented "...within a global framework while being dealt with at the most effectively managed scale and level of decision-making, i.e., locally" (Strong, 1980: 4). For the purpose of this research the "local" context is the Eastern Arctic in northern Canada (Figure 1).

FIGURE 1 MAP OF NORTHERN CANADA



Source: K.J. Rea, *The Political Economy of Northern Development*, Background Study No. 36 (Ottawa: Science Council of Canada, 1976). Reproduced by permission of the Minister of Supply and Services.

Adapted from Dacks (1981:7).

Thus, a more specific purpose of this research is to explore how land-use planning has promoted and could promote sustainable development in Canada's North.

The Brundtland report on Our Common Future made a point of identifying the important relationship between indigenous peoples and sustainable development:

> Tribal and indigenous peoples will need special attention as the forces of economic development disrupt their traditional life-styles---life-styles that can offer modern societies many lessons in the management of resources....Their traditional rights should be recognized and they should be given a decisive voice in formulating policies about resource development in their areas (WCED, 1987: 12).

Because this statement is particularly relevant to northern Canada, this thesis focuses on the present and potential role of the Inuit in planning for sustainable development.

Five objectives are addressed by this research:

1) To briefly discuss the concept of sustainable development in general terms and identify some reasonable goals of northern sustainable development;

2) To advance the role northern conservation strategies, environmental impact assessment and land-use planning---and their possible integration in a comprehensive model process---as methods of facilitating sustainable development in the North;

3) To utilize this "ideal" policy and planning framework to evaluate current land-use planning in the Northwest Territories (NWT) as exemplified by the Lancaster Sound Regional Land Use Plan;

4) To compare the "ideal" model and the current land-use planning activities in the NWT to the aboriginal alternative for planning proposed by the Inuit of the Tungavik Federation of Nunavut (TFN);

5) To discuss the implications of this research for evolving planning and political systems which will facilitate the achievement of sustainable development in northern Canada.

1.2 Rationale

At least two very different visions of northern development have existed for a long time, but they have come into direct conflict in the last several decades. One view of northern development, promoted by corporations and the federal

government, treats the North as a resource hinterland and advocates development by large-scale, export-based, and short-term non-renewable resource exploitation (Dosman, 1975 and Gray, 1979). The other vision---eloquently articulated by northern Native peoples and their supporters---sees the North as a homeland and insists that economic development must be diversified, community oriented, long term and based largely on renewable resources (Berger, 1977 and Watkins, 1977).

These two development "dreams" have been and continue to be on a potential collision course. Industrial energy and mineral megaprojects, especially when developed with no or limited environmental and land-use planning, will almost always cause significant cumulative environmental and social impacts which will in turn jeopardize or eliminate future economic and social development opportunities. For example:

> In Northern Quebec, successive manipulation of rivers that flow into the James Bay region may not [appear to] create significant impacts on the basis of successive and independent impact studies. However, the accumulative impact on marine life and the human settlements that depend on the harvest of this life may be significant (Jacobs, 1981: 223).

In addition, attempts at concurrent economic development of the renewable natural resources (such as fish, forests and fur) will inevitably lead to escalating land-use conflicts with proponents of industrial development (Jull, 1986; Fenge and Rees, 1987). Clearly, these conflicts can only be resolved if there is some agreement on a common future for the North.

Accordingly, the central premise of this thesis, as suggested by the title, is that a sustainable future for northern Canada will only be achieved by finding common ground. In its usual meaning common ground is thought of as the domain of agreement between two or more parties who are in conflict over social objectives and values. It is what is agreed upon through negotiation and public debate. However, efficient, fair negotiation and democratic decision-making cannot occur

without adequate information and definitions (Fisher and Uri, 1981; Friedmann, 1987). This is the reason that part of the following discussion is devoted to defining what could be meant by northern sustainable development, the criteria for achieving it, and the implications for planning.

Common ground has another meaning. It is the commons, "a tract of land considered as the property of the community, open to the use of all" (Funk and Wagnalls, 1974: 273). Land that makes up the commons can be broadly defined both socially and ecologically:

> "Land", from an economic point of view, includes not only the surface but what may lie underneath, what grows on the land or in the water, and the water itself...From a hydrologic cycle point of view, "land" would include the surface, the water, and the air (Elliot, 1981: 17).

How we use and manage the land, which is "...the ultimate multiple resource" (Rees, 1987: 3), clearly has profound implications for global and northern sustainable development. Thus, another premise of this thesis is that public planning must be applied to the land (the common ground) and the uses of it if we want to sustain development in the North and the rest of the world. This is the reason for devoting considerable attention to the "theory" of planning in general and comprehensive land-use planning in particular.

Although it is desirable and necessary to outline the objectives of northern sustainable development and devise a framework for comprehensive land-use planning which can be applied in the North, it is not enough to discuss concepts and theories. The usefulness of theory can only be tested in practice. Praxis became possible in July of 1983 when the federal and territorial governments, the Dene Nation, the Metis Association of the Northwest Territories and the Tungavik Federation of Nunavut finalized the "Basis of Agreement" for land-use planning in the N.W.T. (DIAND and GNWT, 1983). However, this agreement is essentially a political document that provides "...only limited details of institutional

arrangements, and virtually none on planning procedures" and "...the real test of northern land use planning will be in its application" (Rees, 1985: 22-23). For this reason, a large part of this thesis is devoted to critically evaluating the recent application of northern land-use planning in the Lancaster Sound Regional Land Use Plan (Lancaster Sound Regional Land Use Planning Commission, 1987b and 1988a).

Currently, the land of the northern commons is a colony "owned" and controlled in the right of the Crown by the federal government and the "community" is held to be the nation state of Canada (Dacks, 1986: 4). However, ownership and management of the northern commons by the federal state is being challenged by native peoples (such as the Dene and Inuit) who reside within its borders. They claim to have the largest stake in and greatest commitment to sustainable northern development:

> Throughout northern Canada and the northern circumpolar world, old peoples in ancient homelands are seeking new status and new means to control their lives and their territories. The front-lines of this struggle are conservation policies (Jull, 1986: 6).

Because northern indigenous people do have an ancient and abiding interest in a sustainable future for their homelands, there is reason to study how they would plan the common ground (i.e., the land and its uses) in the case study of proposed planning in Nunavut (Inuit Tapirisat of Canada, 1982).

The final premise of this thesis is that planning and politics are inseparable. Kenneth Boulding made this clear some years ago when he stated:

> The world moves into the future as a result of decisions, not as a result of plans....Planning may be defined in such a way that it is part of the total decision-making process, but if it is not...it is a bag of wind, a piece of paper and worthless diagrams (1974: 8).

All of the best planning of the northern common ground for a common future will be for naught unless those plans are implemented and the planning process institutionalized through political action. Therefore, the "theory" of sustainable development and land-use planning will be compared with the "practice" of the case

studies to both recommend methods of achieving sustainable northern development (planning) and propose the means of implementation (politics).

1.3 Methods

The first objective of the research is addressed by reviewing both the general literature on sustainable development and northern development in particular. From this review, sustainable development is defined and a set of proposed goals for sustainable northern development is generated.

The second objective is met by studying a range of currently available literature on comprehensive land-use planning. To supplement this rather sparse literature on non-urban land-use planning, it is necessary to review a selection of material on environmental planning, especially environmental impact assessment. From this review, and personal experience in the field, a "model" planning framework is generated for evaluation of the case studies.

Information for the Lancaster Sound case study comes from library sources (for example, Davidson, 1981 and Dirschl, 1980) and all relevant documents related to the Lancaster Sound Regional Land Use Plan which were generously supplied by the office of the Northwest Territories Land Use Planning Commission located in Yellowknife. In addition, personal communications were sought with various staff members of the Northern Land Use Planning Office.

The aboriginal alternative to land-use planning and political implementation of sustainable development in the North is analyzed by reviewing the general literature of Native political development (e.g., Asch, 1984), policy analyses of self-government and land claims in northern Canada (e.g., Graham, et al, 1984) and background documents prepared by Inuit organizations (e.g., Inuit Tapirisat of

Canada, 1982). Limited correspondence and discussions with planners associated with northern indigenous groups provided additional insights.

Finally, the last objective is accomplished by analysis and synthesis. Comparisons of the ideal "models" of policy and planning (theory) with the case studies of Lancaster Sound and Nunavut (practice) leads to the evaluations, conclusions and recommendations for how to get to the "there" of an uncommon sustainable future from the "here" of the all too common unstainable development.

II THE SEARCH FOR SUSTAINABLE DEVELOPMENT

Social goals, whether articulated or not, serve to guide both maintenance of and change in human society. Indeed, the essence of planning is the marriage of knowledge with action to achieve social goals. It follows that, if we wish to judge or evaluate particular political decisions and planning directions, we must measure them against the objectives of some clearly stated social goals. Once social goals have been identified, we need to itemize the objectives which can be used as criteria for assessing planning and action. Finally, the criteria are incorporated into an evaluative framework for analyzing and judging specific policies and planning procedures.

As noted earlier, sustainable development seems to be evolving as a global social goal which has captured the imagination of many people worldwide. Although the phrase "sustainable development" was first used in the World Conservation Strategy (WCS) (IUCN, 1980), it is not an entirely new concept. While there are many versions of the sustainable development concept, the essential message is that there must be universal harmonizing of economic development and environmental protection for human welfare and survival. Nevertheless, it is difficult to find agreement on what sustainable development is or should be.

To establish a framework for comparative evaluation in this thesis, it is necessary to delineate the origins of the sustainable development idea, provide a working definition and identify criteria for measuring it. This is accomplished in four stages. First, a brief history of sustainable development ideologies (visionary theories [Webster, 1967: 413]) is outlined. Second, there is a discussion of how to operationalize the concept. Third, development trends in Canada's north are reviewed to elucidate the notion of northern sustainable development. Finally, an

evaluative framework of sustainable development objectives (criteria) is produced for later comparison to the Lancaster Sound and Nunavut case studies.

2.1 Emergence of an Ideology

With the ascendancy of industrial capitalism and the scientific world view in the 18th century, Europeans came to see themselves as separate from and capable of manipulating the natural environment (Berman, 1984). From that point on, there has been a continual struggle between the social goals of environmental conservation and economic development.

2.1.1 Conservation Comes of Age

Over two hundred years ago, Thomas R. Malthus launched the first salvo in this on-going debate about conservation and development when he warned that the production of food could not keep pace with human population growth. He "...argued that the only way the dilemma could ultimately be resolved was by pestilence, warfare, starvation, and other human calamities, which today we would sum up as 'environmental resistance'" (Owen, 1985: 116). The Malthusian argument was challenged by supporters of Adam Smith, who championed unlimited growth and market self-regulation, and ever since we have had a lively public discussion that swings between two poles:

> In its extreme form, one pole is determinist in its view of nature, Malthusian in its concern with the adequacy of resources, and conservationist in its prescription for policy. The opposite pole is possibilist in its attitude toward nature, optimistic in its view of technological advance and the sufficiency of resources and generally concerned with technical and managerial problems of development (Burton and Kates, 1964: 82).

Subsequent to the 18th century, both points of view have been persuasively advanced.

The idea of sustainable development seems to have grown out of the Malthusian conservation philosophy. In the 19th century, the setting for the flowering of the Western tradition of conservationist philosophy shifted to North America, perhaps because Europeans had invaded a nearly pristine new world which they quickly began to transform. There were eloquent pleas for conservation (e.g., Marsh, 1864) in response to the environmental destruction caused by the economics of manifest destiny. Also, in the mid-1860s, John Muir began his life-long campaign to protect wildlands and founded the "preservationist" arm of the conservation movement. However, it was not until the 20th century that conservation began to be linked with utilitarian development and was taken seriously. It was an American President, Theodore Roosevelt, who in 1908 brought the idea of conservation into the mainstream political domain. Roosevelt and his chief forester, Gifford Pinchot, pioneered the "best use" style of conservation which meant "...that we must put every bit of land to its best use, no matter what that may be---put it to the use that will make it contribute most to the general welfare" (Nelles, 1974: 185). For the first half of the 20th century, "best use" conservation was promoted by federal and regional governments in the United States and Canada.

Until the 1960's, conservation had very few active supporters and was certainly not a mass movement. In the 60's, there was "...an increasisng awareness of the dangers resulting from pollution, increasing populations, and the general destruction of nature in favor of economic profit" (Dasmann, 1984: 9). Sparked by the activism of the civil rights and student movements in Europe, North America and elsewhere, conservation under the new name of the "environmental movement" became a powerful political force. By 1969, the message of this influential social movement was symbolically institutionalized, some say co-opted, by the passage of

the U.S. National Environmental Policy Act and similar environmental protection legislation in other nations.

2.1.2 <u>Onto the International Stage</u>

In the early 1970's, Western scientists and environmental managers were reasoning that "if pollution has become a late major problem of advanced industrialization and if developing countries are following this route, then pollution will sooner or later become a Third World problem as well" (Glaeser and Vyasula, 1984: 24). Thus, at the U.N. Conference on the Human Environment, held during 1972 in Stockholm, politicians and scientists from rich First World countries were telling leaders of poor Third World nations that there were serious contradictions between economic growth and environmental protection. Many of these leaders suspected the motives of the Westerners and argued that "... with social inequality between rich and poor it is impossible to think about a more equitable destribution of wealth without postulating continued economic growth" (Antoine, 1987: 266). Clearly, numerous representatives of developing countries did not want to discuss environmental conservation without talking about economic development. Nevertheless, even though there were profound disagreements, the Stockholm conference did have positive results that set the stage for future progress.

At another conference, held in Cocoyoc, Mexico in 1973, participants questioned the Western development trend or pattern even more by arguing:

> The world today is not only faced with the anomaly of underdevelopment. We may also talk about overconsumptive types of development that violate the inner limits of men and the outer limits of Nature (Henderson, 1981; quoted in Dasmann, 1984: 429).

People began speaking of overdevelopment and limits to growth (Meadows, et al, 1972). By 1973 it was realized that development was not only for poor Third World

countries, but must be extended to the rich First World nations in the form of ecologically sound redevelopment.

Maurice Strong, Canada's world famous advocate of environment and development, named the new pathway ecodevelopment (UNEP, 1973). Ecodevelopment was seen by many as a revolutionary solution to the problems of underdevelopment and overdevelopment:

> The contradiction between development and environment turned into the dialectics of development plus environment. This was the birth of ecodevelopment as a vision of the future....It introduced the aspect of planning the environment... (Glaeser and Vyasula, 1984: 25).

While Strong was not very precise in defining ecodevelopment, by 1974 Ignacy Sachs had become the foremost spokesperson for this ideological precursor to sustainable development.

In a body of works published in the mid to late 1970's, Sachs spelled out many of the characteristics of ecodevelopment. He defined this development paradigm as:

> An approach to development aimed at harmonizing social and economic objectives with ecologically sound management, in a spirit of solidarity with future generations; based on the principle of self-reliance, satisfaction of basic needs, a new symbiosis of man and earth; another kind of qualitative growth...(Sachs, 1978: 11).

Another strong proponent, Raymond Dasmann, championed the "ecodevelopment triangle" which included ecological, economic and socio-political sides:

> In summary, ecodevelopment is a style of development which, in each ecoregion, stresses the specific solutions for its particular problems, bearing in mind the ecological but also the cultural data, the immediate needs, but also the long-term needs....it gives priority to self-reliance (1984: 430-431).

Ecodevelopment can be interpreted as an extension of the environmentalist's manifesto into the development arena. It calls for an ideological shift by rejecting traditional growth-driven and non-ecological development models. As argued later, the concept of ecodevelopment is one ideological variant of sustainable development.

In March of 1980, the International Union for Conservation of Nature and Natural Resources (IUCN), in cooperation with the U.N. Environment Program

(UNEP) and the World Wildlife Fund (WWF), launched the World Conservation Strategy (WCS). The main goal of the WCS was stated as "living resource conservation for sustainable development" and subsidiary goals were:

- to maintain essential ecological processes and life support systems
- to preserve genetic diversity
- to ensure the sustainable utilization of species and ecosytems (IUCN, 1980: 1).

Although there had been earlier attempts to provide specific ecological guidelines for economic development (e.g., Dasmann, Milton and Freeman, 1973), the WCS provides the first strategic approach to the task of integrating conservation and development.

The idea of sustainable development was introduced in the WCS where it was argued "...that conservation and development are so intricately linked that conservation cannot succeed without sustainable development, and development cannot be sustained without conservation" (Te´trault, 1986: 47). The WCS prescription is clearly related to the ecodevelopment ideology (Dasmann, 1984: 20) in that both recognize and accept ecological limitations to economic development. The WCS was brought closer to ecodevelopment at the recent "Conference on Conservation and Development: Implementing the World Conservation Strategy" which recommended that the WCS be broadened to make explicit the goals of social equity, basic needs satisfaction, and self-determination as well as ecological integrity (Holdgate, 1987: 405-419). Implicit in both the ecodevelopment and WCS versions of sustainable development is the notion of limits to material and energy intensive growth. Perhaps because of their insistence on grounding economic development in ecological reality, these particular development ideologies did not capture the immediate attention of private corporations or governments. Thus, there has been a gradual drift away from emphasis on the ecological aspects. Instead, recent pronouncements have stressed the social and economic features of sustainable development.

2.1.3 The Sustainable Development Synthesis

The recent trend, formulated as sustainable development, first saw the light of day at the Global Possible Conference (GPC) held in Rome during 1984. Participants in the GPC defined sustainable development as "...a development strategy that manages all assets---natural and human resources, as well as financial and physical assets---for increasing wealth and well-being" (Repetto, 1985: 10). The objective of "increasing wealth" suggests that economic growth can be unlimited if we improve "management" of resources. Although not clearly expressed, the implication of this definition is that sustainable development can be accomplished by improving economic and environmental assessment techniques---e.g., Cost/Benefit Analysis (CBA) and Environmental Impact Assessment (EIA).

The most recent international attempt to define and promote sustainable development was made by the United Nations sponsored World Commission on Environment and Development (WCED). The WCED, with members from twenty-one differenct nations, was established in 1983 and reported it's findings in 1987. In Our Common Future, the WCED defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (1987: 43). Probably the greatest contribution of the WCED discussion is its emphasis on social equity, solidarity with future generations and public participation in development decision-making. On the other hand, perhaps the biggest weakness in the WCED interpretation of sustainable development is its reliance on the traditional panacea of industrial growth. This is made clear when the Commission leaps to the conclusion that population growth will require substantial industrial growth in both industrialized and developing countries. It even submits that "a five- to ten-fold increase in world industrial output can be anticipated by the time world population stabilizes sometime in the next

century" (WCED, 1987: 213). To be fair, there is a recognition of ecological limitations on development but it is tempered by the provision that the limitations "...are imposed by the state of technology and social organization on the environment's ability to meet present and future needs" (ibid.: 43). Thus, while social and economic development is emphasized, it is acknowledged that the ecological foundation for development, though modifiable, must be respected.

2.1.4 Canadian Sustainable Development

Closer to home, the Canadian Council of Resource and Environment Ministers established the National Task Force on Environment and Economy (NTFEE) in 1986 in response to the call for action on sustainable development by the WCED. However, the NTFEE seems to retreat further from the WCED's limited acceptance of ecological restraints on development. It refers to sustainable economic development as "...development which ensures that the utilization of resources and the environment today does not damage prospects for their use by future generations" (CCREM, 1987: 3). Unfortunately, the Task Force does not mention basic needs or social equity, "nor does it place any artificial limits on economic growth..." (emphasis added) (ibid.). Furthermore, there seems to be an inherent contradiction between the statement that "...resources and the environment must be managed for the long term..." and the conceit that "sustainable economic development does not require the preservation of the current stock of natural resources..." (ibid.). In other words, as Rees has noted "in the final analysis, then, the Task Force definition of sustainable development could be used to defend practically any pattern of economic activity including the status quo (which one suspects, was the general idea)" (1988: 12).

2.1.5 Sustainable Development Ideologies

Looking back over this brief history of the evolution of "sustainable development" ideologies, it should be clear that they can be arranged along a continuum (cf. Environment Canada, 1984; O'Riordan, 1981). This continuum illustrates significant variations in the definitions of sustainable development and prescriptions for social change (Table I).

Sustainable development ideologies on the left of the spectrum are represented by ecodevelopment and, to a lesser extent, the WCS model. They advocate fairly radical social transformation that will restructure our scientific worldview from reductionist to holistic, recognize ecological limits to growth, guarantee social equity now and for future generations, and promote self-determination. At the other extreme, represented by the NTFEE and, to some degree, the GPC, is the ideology of sustainable development which accepts that environmental concerns can be accommodated without substantial change to the socioeconomic system. Proponents of this view supposedly believe that reductionist science and technological innovation can improve our economic and environmental management techniques sufficiently to mitigate any negative effects resulting from continuing economic growth, that only intergenerational equity is of major concern, that there are no real ecological limits, and that decision-making should continue to be centralized. Finally, there is a middle ground, best exemplified by the WCED but shared somewhat by the WCS on the left and the GPC on the right side of the continuum. This moderate ideology foresees sustainable development achieved through incremental social change, but acknowledges some ecological constraints on economic growth, advances intergenerational solidarity and social equity, and favors new "styles" of decision-making (Table I).

TABLE I SUSTAINABLE DEVELOPMENT IDEOLOGIES

TYPE OF CHANGE	TRANSFORMATIVE			INCREMENTAL	
EXAMPLE	ECO	WCS	WCED	GPC	NTFEE
BASIC BELIEFS	Rejects Unlimited Economic Growth			Accepts Economic Growth	
TYPE OF CHANGE	Radical Social Change With Decentralization and Self-Management			Improve Economic and Environmental Management With Public Participation	
POLITICAL AGENDA	Redistribution and Social Justice			Maintain Status Quo	
SCOPE OF CONCERNS	Holistic (Broad)			Reductionist (Narrow)	
DECISION MAKING	Local			Central	
LIMITS TO GROWTH	Absolute Ecological Limits			No Ecological Limits	

Adapted from O'Riordan (1981: 376).

ECO= Ecodevelopment
WCS= World Conservation Strategy
GPC= Global Possible Conference
WCED= World Commission on Environment and Development
NTFEE= National Task Force on Economy and Environment

In this analysis, it is clear that sustainable development can be almost anything one wants it to be. It can be used to justify the status quo, as in the NTFEE, or it can be a harbinger of revolutionary change as implied by ecodevelopment. That is, it can be radically transformative or conservatively accomodating. In this thesis, the ideologies on the left side of the continuum have influenced the constuction of a framework and set criteria for evaluating policy and planning processes being employed or contemplated in northern Canada.

2.2 Implementing the Sustainable Development Concept

Though the concept of sustainable development is currently popular, it is difficult to find a good definition. As explained, the basic principles have been argued about for a long time. This leads one to wonder about the value of such a concept. Are these new utterances simply more rhetoric designed to pacify environmentalists without disturbing developers? Is it really possible to apply the concept and, if so, can it be done without major social changes?

2.2.1 Defining Conservation and Development

The various sustainable development ideologies have evolved out of the past conflict between conservation and development. In recent years, conservation has been defined to include the notion of sustainable use and development has been redefined to include the concept of sustainability. Conservation can be defined as:

> the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining the potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment (emphasis added) (IUCN, 1980: 1).

As defined in the World Conservation Strategy (WCS), conservation has been broadened to include both the ideas of preservation and utilization.

The WCS also defines development as:

> the modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life. For development to be sustainable it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long term as well as the short term advantages and disadvantages of alternative actions (emphasis added) (ibid.).

This is a generalized definition of development based on the old idea of sustainability. The problem remains that, despite years of rhetoric about sustainability, we have much difficulty effectively implementing the idea.

2.2.2 The Meaning of Sustainability

When we say something is sustainable, what do we mean: sustainability of what, for whom, for how long and with what specific inputs? A good example of where these kinds of questions need to be applied is Canada's forest resource. There have been historically recurring commitments to sustainability in our forests but it is often unclear as to what is supposed to be sustainable. Are we talking about sustaining the trees, the forest ecosystem, industry cash flow, small hinterland communities or government revenues? In fact, the goal of "sustainability" is applied to all of these forest related factors in different ways depending on the actor involved (e.g., environmentalist, professional forester, forest company executive or politician).

One significant problem in operationalizing sustainable development involves the temporal dimension. While recent definitions have included both short-term benefits for living people and long-term concerns for future generations, the diachronic emphasis is inherent in the concept of sustainability. Yet, it is hard to define "long term". Does it refer to five years, a generation, a century or forever?

Clearly, in order to change the idea of sustainability from rhetoric to action, there has to be some delineation of the time horizon.

Another problem involves the relationship between inputs to a system and its sustainability. In theory, any system, whether ecological or social, is sustainable as long as the inputs of energy and materials match outputs. In a natural forest ecosystem, inorganic and organic inputs help balance soil building and soil erosion. However, under the regime of modern industrial forest harvesting and "management", the natural input of materials is reduced or destroyed and soil erosion is accelerated. Is this sustainable utilization of the forest? The answer is presumably no because foresters are now arguing that large inputs of artificial fertilizers and other expensive silvicultural treatments are required to sustain forestry in Canada. Modern agri-business is another excellent example of a resource sector that is kept questionably sustainable through heavy subsidization with energy and material inputs. Finally, sustainable redevelopment of such damaged ecosystems as the Great Lakes will clearly require massive inputs (Regier and Baskerville, 1986). Therefore, in contemplating the meaning of sustainability, it is necessary to specify the amount and kind of inputs, natural and artificial, to a system.

2.2.3 Sustainable Devlopment Defined

If we take the above problems into consideration, the concept of sustainable development can be formulated in a variety of ways depending on the purpose of the research or policy making endeavor. One attempt is as follows:

> Sustainable development is development that does not destroy the adaptive capacity of a system (whether bio-physical, economic or social) to recover from perturbation. If there are subsidies (i.e., artificial inputs) and they cease, recovery of the system should not take more than one human generation. Thus, the next generation has

> the opportunity to make its own adaptive decisions (Holling, 1987: personal communication).

This definition is not complete but it does help take the concept of sustainable development further away from the realm of vague generality towards action.

A more succinct definition has been recently advanced by Rees who states that sustainable development is "a goal-oriented process for positive socioeconomic change that does not erode the ecological, social, or political systems upon which society is dependent" (1988: 11). The key idea here, that sustainable development will not erode natural and social systems, seems analogous to Holling's proposition that adaptive capacity and resilience of systems must not be compromised by development.

A functional definition, drawing on the above discussion, follows:

> Sustainable development is goal-oriented social change, designed to meet present and future human needs, that does not eliminate the capacity of the bio-physical, economic and sociopolitical systems to recover from perturbation within about thirty years so that every human generation can make its own adaptive decisions at all spatial scales.

This definition specifies the subject systems, the response to inputs and disturbances, the temporal and spatial scales, and some economic and sociopolitical prescriptions.

In his deliberations, Rees goes on to say that "...sustainable development is a complex social process which":

> 1. is value-laden (oriented to achieving explicit ecological, social, and economic objectives);
> 2. requires deliberate planning and control at all spatial scales (is explicitly interventionist);
> 3. may impose ecological limits on material growth (while fostering qualitative growth at the individual and community levels);
> 4. needs the full understanding and support of the people (for political viability), and therefore;
> 5. demands educational, planning, and political processes that are informed, open, and fair (ibid.).

The second, fourth and fifth points will be discussed in Chapter Three, but the first (values) and third (ecological limits) will be elaborated in the following comments about carrying capacity and indigenous cultures.

2.2.4 The Carrying Capacity Concept

It is impossible to discuss the idea of sustainable development on a concrete level, much less implement it, without considering carrying capacity (Schneider et al. 1978). Perhaps it has been difficult to apply sustainable development because this concept has been generally ignored. Carrying capacity can be defined as:

> the maximum population of a given species which a particular habitat can support indefinitely (under specified technology and organization in the case of the human species) (Catton, Jr., 1982: 272).

It can be argued that sustainable development, whether attempted on a local, regional or global scale, cannot be implemented on a short-term or long-term basis without consideration of carrying capacity (cf. Rees, 1988: 21-22).

The easiest way to conceptualize the idea of carrying capacity, and its relationship to sustainable development, is probably in a regional context. For example, Soemarwoto has recently tried to apply the ecological concept of optimum carrying capacity in planning sustainable agriculture for Indonesia (1982: 54-93). In Canada, using the present political boundaries to delineate the region, students at the U.B.C. School of Community and Regional Planning calculated the total area of agricultural land required to feed the population of British Columbia. They discovered that the B.C. population is consuming food from an agricultural land base about twice the size of that available in the region (Rees, 1986:4). We can say that B.C. is either exceeding its carrying capacity or is exhibiting regional enhanced carrying capacity (ecc) (Inoue, 1986).

In his recent thesis which elucidates the role of carrying capacity in regional planning, Inoue defines regional ecc as follows:

> Regional enhanced carrying capacity (ecc) is the maximum number of people that can be supported at a certain material standard of living in the long run by utilizing regional resources with a certain level of subsidization by interregional transactions. Ecc is a function of natural capability of a region (n), intraregional human capability to

> work on ecological life-supporting systems (h), rate of consumption or material standard of living (c), and level of subsidization by imported commodities (i) (1986: 5).

According to this view, the modern industrial approach to development and regional planning assumes that the resource base is limitless. Further, interregional trade, such as food importation, masks the intrinsic carrying capacity (icc) of a region. In order to achieve a viable region through sustainable development, regional self-reliance should be emphasized and economic development should be based as much as possible on the intrinsic carrying capacity of the region.

2.2.5 Traditional Cultures and Sustainable Development

For many citizens of the global commons, particularly those of us inhabiting industrialized countries, adjustment to the earth's carrying capacity and adoption of sustainable development as a goal will only occur with a significant change in values. Most indigenous or traditional cultures, on the other hand, have belief and behaviour systems that inherently support conservation and development that is sustainable (McNeeley and Pitt, 1985). In the worldviews of indigenous peoples there is usually no clear distinction made between humans and nature. Put another way:

> The concept of nature and people being one and the same is found in the belief-systems of many indigenous peoples and is far older than that of conservation (as it is generally understood). It reveals a basic fact of life; that human beings are simultaneously modifiers, beneficiaries and integral components of the biosphere (Prescott-Allen 1987: 178).

Thus, traditional cultures have value systems that may integrate the Western dichotomy between species rights and human rights or between culture and nature.

In addition to belief systems, these cultures have evolved institutions and technologies for utilizing and managing natural resources. This was emphasized by the Brundtland Commission when it stated that:

> These communities are repositories of vast accumulations of traditional knowledge and experience that links humanity with its

> ancient origins. Their disappearance is a loss for the larger society, which could learn a great deal from their traditional skills in sustainably managing very complex ecological systems (WCED, 1987: 114-115).

The WCED goes on to say that unsustainable industrial development often encroaches upon the territories of aboriginal peoples and unjustly destroys the very cultures which have made sustainable adaptations to their habitats.

To prevent this tragic and wasteful situation, the WCED states that as:

> The starting point for a just and humane policy for such groups is the recognition and protection of their traditional rights to land and the other resources that sustain their way of life....the recognition of traditional rights must go hand in hand with measures to protect the local institutions that enforce responsibilities in resource use. And this recognition must also give local communities a decisive voice in the decision about resource use in their area (ibid.: 115-116).

These sentiments and recommendations were also reiterated at the 1986 Ottawa conference on "Implementing the World Conservation Strategy" (Jacobs and Munro, 1987: 410-411 and 441-442).

2.3 Northern Development: The Search for a Balance

The concept of carrying capacity and the value of the aboriginal alternative for sustainable development are major themes which have recurred over the last two decades in discussions about development in northern Canada. The first is of great concern because the northern ecosystem is very fragile with a low biomass and carrying capacity. The second theme is important because indigenous people are the majority in much of the North (especially the Eastern Arctic), are still physically and spiritually dependent on the northern lands and resources, and have organized themselves into political bodies able to provide self-government for sustainable development in the Canadian North.

In Canada, as in the other wealthy circumpolar nation states (e.g., Denmark, Norway, United States), the "North-South dialogue" is turned on its head. Usually, in

international circles, "...the word 'north' has come to mean 'developed' and the word 'south' to mean 'un' or 'underdeveloped'" (Keith and Simon, 1987: 209). However, in circumpolar countries, "the 'north'...refers to the remote hinterlands 'laden with resources'" while "the 'south' is the highly populated and industrialized metropolitan region containing most of those nations' political and economic power" (ibid.). The aboriginal societies who occupy the frontiers or "internal colonies" of these First World nations exhibit all of the characteristics of "Third World" underdevelopment and have been called the Fourth World (Manuel and Posluns, 1974).

The existence of the Fourth World in northern Canada was recognized by George Erasmus, former President of the Dene Nation, in a political tract entitled We the Dene:

> Within the industrialized nation-states, there exist nations of aboriginal peoples who do not share the wealth and power of the dominant society. These people have a history of exploitation by the developed countries similar to the Third World experience. The difference is that these people exist within the geographical boundaries of the "developed world" (1977: 177).

Fourth World peoples (like the Dene or Inuit), living in the hinterlands of Canada and other northern states, are small, culturally-distinct populations who maintain many of their aboriginal traditions of social organization, self-governance, economic development and spiritual practice.

Renewable resources of furs, fish and game have been the mainstay of the traditional economy, still play a major role today, and may do so into the future. For this reason, "the circumpolar world offers some important insights into what the phrase 'sustainable development' means in remote regions where renewable resources support culturally-unique populations" (Keith and Simon, 1987: 212). The basic idea of sustainable development, that is, of automatically combining conservation with utilization of resources, is not new to northern indigenous peoples but before we

explore it further, a brief history of Canadian northern development will provide useful context.

2.3.1 Contradictions in Northern Development

Prior to World War II, the Canadian federal government designated much of the North as wildlife refuges for exclusive use by native people who were encouraged to depend upon these renewable resources (Hunt, 1976). However, shortly after 1945 government administrative practices and policy changed dramatically to accentuate non-renewable resource development and acculturation of the northern aboriginal peoples. Based on the paternalistic notion that it was only a matter of time before nomadic northern natives "...adapted to the growing non-renewable resource, cash-based economy of the South", this policy shift led to their forced "settlement" in villages "...where government could more readily provide social and health services" (Jacobs and Fenge, 1986: 268).

With its new focus on non-renewable resources the federal government initiated new policies and programs to stimulate northern development in partnership with the private industrial sector (DIAND, 1969). This thrust, with government providing incentives and infrastructure, began in the late 1950s with Diefenbaker's "roads to resources" (Rea, 1976), continued through the 1960s and the 1970s with the "need to know" energy development policy (EMR, 1976), and into the early 1980s with the National Energy Program (EMR, 1980). These policy and program initiatives clearly demonstrated the government's intentions to completely abandon the renewable resource sector and replace it with the non-renewable resource, internationally driven, market economy.

Despite the irrefutable evidence that the federal government has favoured non-renewable resource development from the 1950s onward (Dacks, 1981; Page,

1986), policy statements released by federal politicians have often given mixed messages. For example, in 1972 Jean Chre´tien, then Minister of DIAND, issued a policy document entitled Canada's North: 1970-1980 which outlined the government's development vision.

First, this document seemed to favour a rudimentary form of sustainable development when it said:

> People, resources and environment are the main elements in any strategy for northern development...the Government affirmed that the needs of the people of the North are more important than resource development and that the maintenance of ecological balance is essential (Info. Canada, 1972: 6).

A little later, however, the national interest in non-renewable resources was asserted with the statement that:

> ...a realistic assessment is that in major terms that can affect the overall wealth of Canada, the economic future of the North lies in the ground. It is now confidently predicted that the mineral, oil and gas resources likely to be found can form the basis of very substantial economic development (ibid.: 14).

Finally, it was apparently thought that the solution to this contradiction was "in the setting of objectives and priorities in the North, in line with national policy goals, [where] the essence of choice for the Government is to maintain an appropriate degree of balance among those three elements [of people, resources and environment]" (ibid.: 6).

The same rhetoric was being used ten years later when John Roberts, then Minister of Environment, stated that "balanced development is the policy goal" of the government (Environment Canada, 1983: vii). The problem was, and is, that "balanced development" can mean different things to different people. The conflict and contradiction, between government promotion of hydrocarbon and mineral extraction on one hand and it's "duty" to protect the northern environment and native peoples on the other, came to a head in the nationally prominent Berger Inquiry.

2.3.2 Northern Frontier or Northern Homeland: The Berger Inquiry

From 1973 to 1977, this now internationally known "super" impact statement looked into the economic, environmental and social effects of the proposed Mackenzie Valley gas pipeline (Berger, 1977). Regarding decisions about what constitutes "balanced development", Justice Berger stated that "the choice we make will decide whether the North is to be primarily a frontier for industry or a homeland for its people" (ibid.: V. 1: 2). The Report of the Mackenzie Valley Pipeline Inquiry concluded that most of the benefits from large-scale, non-renewable resource development would go to Canada's metropolitan South and the costs would be borne by the North, particularly the indigenous people.

Throughout his inquiry, Justice Berger found that there was an overwhelming concern among the aboriginal people and their supporters that megaproject development (with its attendent destruction of the environment and land) would cause the death of their culture and the economy of the North. Therefore, he recommended delaying construction of the pipeline and diversifying the northern economy. He justified this last point by saying:

> I am convinced that non-renewable resources need not necessarily be the sole basis of the northern economy in the future. We should not place absolute faith in any model of development requiring large-scale technology. The development of the whole renewable resource sector---including the strengthening of the native economy---would enable native people to enter the industrial system without becoming completely dependent on it (ibid.: V. 1: xxvi).

Berger was advocating a "balanced development" policy which would give as much attention to the northern "bush" or "mixed" economy as the southern industrial "machine".

2.3.3 <u>The True Northern Economy</u>

Since Berger's inquiry, a number of commentators have championed the mixed economy as the proper pathway to balanced or sustainable development in the North (Dacks, 1981; Jacobs and Fenge, 1986; Keith and Simon, 1987; Rees, 1986; Robinson and Ghostkeeper, 1987; Ross and Usher, 1986). Stimulus for these discussions has come from the growing conviction that it is preferable to avoid <u>both</u> over-reliance on the industrial economy (which has brought few benefits to the North) <u>and</u> complete dependence on the renewable resource sector (which probably cannot fully sustain the growing human population) (Dickinson and Herman, 1979; Fuller and Hubert, 1981).

The idea of the mixed economy has also come from observing the cultural adaptation of northern native peoples to the impacts of Western colonialism. As Brody has noted:

> What Eskimos want is the possibility for a least a mixed economy, where some flow of cash (either in the form of wages or earnings from fox skins) guarantees use of the land, foodstuffs, personal and interpersonal relationships...(1978: 30).

The northern mixed economy "...is a sociocultural adaptation to an unpredictable environment that both enhances individual security and ensures community coherence and survival" (Rees, 1986: 18). Thus, the bush or mixed economy can be seen as a socioeconomic derivative from an ancient adaptation to uncertainty which effectively integrates non-renewable and renewable resource economies.

Today, over a decade after publication of Berger's sage advice, the federal government has done little to produce economic policy and planning programs that will strengthen a "true north" economy based heavily on renewable and presumably sustainable resources. Echoing Berger, Rees has recently recommended that "in future, rather than treating the mixed economy as a barrier to progress, development

policy for the north should protect and enhance this pre-adapted social system" (1988: 19).

Tragically, the question of planning for renewable resource development could become "academic" because of the newly discovered threat of chemical pollution in the northern ecosphere. In December of 1988, federal government scientists made news "...with reports that chemicals such as DDT and PCBs have penetrated virtually every level of the Arctic food chain, threatening the health of 26,000 Inuit." (Globe and Mail, 1989: A16). In response, the Inuit Circumpolar Conference have called for a global treaty to reduce Arctic pollution. Clearly, this chemical contamination of the Arctic ecosystem must be eliminated or, at least, reduced because sustainable development in the North has to be based on a mixed economy. This economy should emphasize renewable resource development which fosters subsistence, intra- and interregional trade, and integration with the national economy through sales of renewable resource products, wage employment or transfer payments.

2.3.4 Northern Conservation Strategies

Besides the Berger "school" of northern sustainable development, through enhancement of the renewable resource sector and the mixed economy, there have been several other approaches to harmonizing conservation and development in the North. One of these has been the Task Force on Northern Conservation (TFNC) whose broad prescription for northern sustainable development is similar to that proposed by the Brundtland Commission:

> to manage the human use of natural resources, renewable and non-renewable, so that they may yield the greatest sustainable benefit to present generations, while maintaining their potential to meet the needs and aspirations of future generations (TFNC, 1984: 14).

The TFNC goes on to list more specific principles for achieving this broad goal:

> a) genetic diversity of natural organisms and essential ecological processes should be maintained;
> b) resource management should reflect the concept of stewardship and should be aimed at achieving the integrated use of resources to the extent they can be made mutually compatible;
> c) sustainable utilization of species and ecosystems should be assured for the benefit of the people of the North, as well as for all Canadians; and
> d) projected benefits should meet the needs and values of the people of the North, as expressed through their participation in the convervation and development processes (ibid.)

This general northern conservation strategy is being elaborated and extended by the federal government's Arctic Marine Conservation Strategy, the Yukon and Northwest territorial government's conservation strategies and by the Inuit Circumpolar Conference (Dept. of Fisheries and Oceans, 1987; Livingston and Bastedo, 1988; McTiernan, 1988; Prescott-Allen and Prescott-Allen, 1986). The key role of these various northern strategies for sustainable development is "...to protect the long term productivity of the environment while assisting the development of a more stable and balanced economy" (Livingston and Bastedo, 1988: 4).

2.3.5 Inuit Regional Conservation Strategy

With the dedication which northern indigenous peoples have shown towards protecting their lands and lifestyles against both industrial developers (e.g., oil and gas companies) and urban preservationists (e.g., animal rights activists) it is not surprizing that they embrace the concept of conservation and development (Jull, 1984 and 1986). "For the northern peoples..., the key to survival and social and economic well-being is sustainable development" (Keith and Simon, 1987: 220). The Inuit of northern Canada were and are at the forefront among indigenous peoples who are working on the objectives and processes of sustainable development.

The Inuit Circumpolar Conference (ICC) was established in 1977 by the Inuit of Alaska, Canada and Greenland. It's objectives were:

> 1) to strengthen unity among the Inuit of the circumpolar region;
> 2) to promote Inuit rights and interests internationally;
> 3) to ensure adequate Inuit participation in political, economic and social institutions which Inuit deem relevant;
> 4) to promote greater self-sufficiency of Inuit in the circumpolar region;
> 5) to ensure the endurance and the growth of Inuit culture and societies for both present and future generations;
> 6) to promote long-term management and protection of arctic and sub-arctic wildlife, environment and biological productivity; and
> 7) to promote wise management and use of non-renewable resources in the circumpolar region and incorporate such resources in the present and future development of Inuit economies (DIAND, 1988: 13).

Apparently, the ICC incorporated many of the objectives of what has come to be known as sustainable development in their original statement of purpose (Jacobs, 1984).

In 1985, the ICC took another step in evolving sustainable northern development by establishing an Environment Commission. Following their review of the World Conservation Strategy, in 1986 the ICC adopted a proposal for an Inuit Regional Conservation Strategy (IRCS) and began implementing it in 1987. The IRCS has three main objectives:

> a) Secure Inuit aboriginal rights to traditional lands and waters, to self-government, and to the natural (animal and plant) resources required for subsistence.
> b) Conserve the harvested resources, ecological processes, and biological diversity on which Inuit depend for subsistence, cultural and economic survival, and sustainable development; and on which depend the productivity, diversity and self-renewing capacity of the the natural resources and environment in the Inuit homeland.
> c) Develop Inuit economics sustainably, using the natural resources of the Inuit homeland (Prescott-Allen and Prescott-Allen, 1986: 88).

Thus, the Inuit are leading the way in providing a truly northern perspective on what the objectives of sustainable development ought to be in Canada's North.

In the foregoing, some of the literature of northern development has been briefly reviewed. As Jacobs has noted, "much of this literature is generated in the South, however, and not all of the literature clearly and carefully reflects the

perspective of northern residents" (1984: 18). To compensate, indigenous viewpoints prepared by the ICC have been highlighted. These, combined with the earlier discussions of the sustainable development paradigm, can now be employed to produce a framework of objectives for measuring progress towards sustainable development in northern Canada, especially the Eastern Arctic.

2.4 Sustainable Development Objectives

In order to evaluate an existing or proposed planning process it is necessary to make the basis for evaluation explicit. Earlier sections of this chapter have broadly identified and outlined various objectives of sustainable development at the global and local (northern Canadian) scale. This section summarizes these idealized objectives of sustainable development and makes normative statements as to how they should pertain to northern Canada. These objectives will function as part of a set (the other part will be related to process or procedures) of "performance criteria" to evaluate the current Lancaster Sound Regional Land Use Plan and the proposed Nunavut planning system. (It should be noted that, in addition to drawing on the earlier sections of this paper, use has been made of a document recently produced by Gardner [1987] which outlined a useful framework of sustainable development principles).

2.4.1 There Should Be Full Integration of Conservation and Development

The primary objective in sustainable development enterprises should be the explicit and systematic integration of conservation and development activities. Not only must there be appropriate planning and management processes in place (discussed in Chaper III) but, more importantly, there must be continual reference to

a value system that facilitates such integration. This value system must foster a conservation ethic that is both utilitarian and preservationist as well as a development philosophy that puts equity and sustainability ahead of economic growth.

In northern Canada such a value system has evolved over millenia and still persists today in the Indian and Inuit cultures. The native peoples view land and culture, nature and humans as one system. Natural "resources" are both commodities to be consumed and companions with intrinsic values. *Therefore, any attempt to achieve sustainable development in northern Canada should incorporate the aboriginal value system.*

In the North specifically, integration of conservation and development concerns can be accomplished through maintenance and promotion of the "mixed" economy. This unique northern mixed economy has integrated the non-renewable and renewable resource sectors at both the individual and community levels. Adoption of this approach as the economic development policy for the North would ensure that renewable and non-renewable resources are both conserved and developed so as to sustain them separately and together. *Northern sustainable development will require adherance to and enhancement of---or, at the very least, preservation of---the mixed economy, particularly the renewable resource aspect.*

2.4.2 Ecological Integrity Must Be Maintained

This objective is derived directly from the World Conservation Strategy which requires:

- maintenance of ecological processes
- maintenance of biological diversity
- maintenance of renewable resources at sustainable levels of use

Conservation of biological diversity and ecological processes is particularly important in northern Canada for maintaining the productivity and self-renewing capacity of the environment and natural resources which native people depend on for subsistence, cultural survival, and development that is sustainable. Environmental conservation in the circumpolar region is also vital to the world because of its influence on global processes (e.g., its dominance of northern hemispheric climate).

Because of their fragility and low productivity, the northern terrestrial ecosystems display low carrying-capacity and dispersed wildlife populations. *To ensure sustainable development every effort should be made to stay within carrying-capacity limits.* Also inputs, such as energy subsidies, should be kept at a minimum and means should be found for replacing these imports with local sources. With increasing pressures to enhance the renewable resource economy, especially fish and wildlife, active management both by traditional and scientific methods, must be increased and improved.

Above all, policy and planning systems should strive to ensure that perturbations to the northern ecosystems, either by environmental degradation or removal of artificial inputs, can be mitigated within the time span of one human generation (twenty-five to thirty years). *Thus, sustainable development not only implies preservation and maintenance of ecosystems, but also active enhancement and restoration of ecosystem stability and productivity.*

Finally, ecological rules should guide all decision making affecting land and resource use. This is imperative in the North where ecosystems are much simpler than those in temperate or tropical regions. While ecosytem simplicity does not necessarily produce instability, it does contribute, along with climatic severity, to the region exhibiting limited ability to absorb pollution and recuperate from environmental disruption.

2.4.3 There Should Be Fulfillment of Basic Human Needs

Satisfaction of human needs is clearly dependent on recognition of the interdependence of conservation and development. Natural resources, nature's capital, must be husbanded to satisfy the immediate and long term basic human needs. This is especially true for northern Canada where productivity is low.

Security of a sustainable livelihood should be guaranteed. For northerners, this can be achieved in two ways: first, by conserving the renewable resources required for subsistence and sustainable economic development; and,. second, by encouraging small-scale, slow-paced development of non-renewable resources.

There should be some limited economic growth in underdeveloped regions of the world ,such as northern Canada, to satisfy basic needs in energy, food, water, shelter and employment. However, concurrently, there should be maintenance of a steady state and, probably, reduction of economic activity (i.e., consumption) in developed regions like southern Canada to reduce the demand on the resources of underdeveloped areas.

Qualitative, rather than quantitative, growth should be fostered. This is in recognition of the fact that people have cultural and spiritual as well as material needs. Growth can be safely encouraged in these areas without fear of unsustainability. In the North, this could mean doing such things as incorporating the Inuit language and knowledge systems more fully into education and research institutions. Alternatively, rational land use allocation and a guaranteed hunter income policy could be used to promote the trend towards reestablishment of remote renewable resource harvesting bush camps and the consequent rebuilding of the extended household economy.

Finally, satisfaction of human needs should occur not only for the individual, but also at the household and community levels. Stengthening of the traditional

household economy and the community ties among northern peoples will accomplish this aspect of sustainable development.

2.4.4 Equity and Social Justice Must Be Assured

Past unsustainable development has often forced people to exploit their environment near its limits. For example, commercial fishing in northern Canada with minimal value-added processing leads to poor financial returns to the fisher who is forced to overharvest the resource to increase volume. This spiral of diminshing returns reduces the fish stocks so that the people gradually become poorer. *Therefore, sustainable development should ensure that ecological limits are not approached too closely in order to ensure equity.*

Implicit in the concept of conservation is the idea that future generations should have equal access to natural resources. *The sustainable development vision goes further and specifies that there must be both intra- and intergenerational equity.* Interestingly, among northern aboriginal peoples there is the belief that humans are also responsible to their ancestors for conservation of the environment. Perhaps, this "logical" extension of the sustainability continuum from the past, through the present, and into the future should be adopted by all societies. It might engender the respect for nature and people that is required if we are to achieve sustainable development.

Lastly, there should be guaranteed access to all resources necessary for a sustainable livelihood. Further, development costs and benefits must be equitably shared. Previously, in northern Canada, with economic policy focused on non-renewable resource megadevelopment, most of the benefits have gone to the south and virtually all of costs have been borne by northerners. These large, privately planned projects, such as the proposed Mackenzie Valley pipeline, have

simultaneously denied access to lands containing essential renewable resources and imposed innumerable environmental and social costs on the local inhabitants. Future planning of paced, small-scale, non-renewable resource projects and increased development of renewable resources by indigenous people will assure greater equity as well as sustainability.

2.4.5 Cultural Diversity and Self-Determination Should Be Encouraged

These objectives are closely related to those of equity and justice and are central to the achievement of sustainable development. *Freedom of choice and individual fulfillment, in areas other than material aggrandizement, should be fostered.* In northern Canada, this would mean that an individual or family should have the choice of either living a traditional, subsistence-based lifestyle in the bush or of being more actively involved in the national industrial economy.

Sustainable development must be culturally appropriate. This means that local knowledge and traditional skills should be respected as equal or often superior to positivistic science and industrial technology. As an example, indigenous peoples in the North have intimate knowledge of wildlife and northern habitat. They have been sucessfully managing these resources for generations. Their knowledge, both theoretical and practical, should be more closely integrated with Western science and management models. Perhaps the best way to do this is for local people to follow the example of the Inuit of northern Quebec and establish their own research and management institutions that incorporate both traditional and Western knowledge.

Most importantly, for implementation of sustainable development, decison making and planning should be decentralized and locally controlled. Experience in northern Canada has clearly shown that externally imposed and top-down systems of development and planning lead to land-use conflicts and unsustainable

development. To remedy this, the rights that native northerners hold to their traditional lands must be recognized as being inalienable without their consent. In addition, their inherent rights to self-determination must be provided for in the national constitution. These assertions are based on the premise that development can only be sustainable if it is accomplished through self-determination at the local level. Thus, while sustainable development is a global goal, it has to be implemented through local action. In this way, we can perhaps avoid environmental and social destruction and reach an uncommon future in the North which balances conservation and development.

III PLANNING FOR SUSTAINABLE DEVELOPMENT

In a recent article, Robert Prescott-Allen laments that there have been few concrete changes since the launching of the WCS in 1980:

> We are talking about building blocks for achieving conservation for sustainable development. Much of what has been said so far here reminds me of the same important points made while we were preparing the WCS, which, in turn, reminded me of the important points that were made in 1972 at Stockholm, which suggests to me that nothing is new since God started creating plants and animals and then on the sixth day created evolution, enabling Her on the seventh day to rest (1987: 11).

Put in less grandiloquent terms, there has been a lot of talk but no real action on the integration of conservation and development. Perhaps sustainable development works in theory, but is difficult to put into practice because of the lack of adequate planning processes and sufficient political will.

Planning has been defined in a variety of ways over the years. Dror (1963: 46-58), for example, identified a range of possible definitions: 1) a synonym for management; 2) an activity that places high value on rationality and use of knowledge; 3) a method for creating "blueprints" for the future; 4) a means for making decisions about future action; and, 5) an approach for achieving "social good" or protecting the "public interest". Taken individually, these definitions are all limited and incomplete. In a recent treatise on planning theory, Friedmann succinctly draws these diverse notions together in defining planning as an attempt "...to link scientific and technical knowledge to actions in the public domain" (1987: 38).

Unplanned and privately planned development, especially by corporations, has led to the present world-wide crisis of inequality and unsustainability. Some of the symptoms of this include:

> The weakening of the nation-state, as capital continues to leave its natural "incubator" to become a truly global force.

> The growing impoverishment of peasant societies...[which make-up]...roughly two thirds of the world's population.
>
> The growing awareness that our physical environment has only a finite capacity to accommodate growth in population and production.
>
> The increasing redundancey of labor throughout the world....
>
> The staggering volume of international indebtedness....
>
> [The global]...formation of a military-industrial complex that controls a vast arsenal of nuclear weaponry (ibid.: 9-10).

Because of this crisis, it is a premise of this thesis that public planning, no matter how it is defined, is required for the attainment of a just and on-going society.

Sustainable development "...requires deliberate planning and control at all spatial scales (is explicitly interventionist)" (Rees, 1988: 11). Yet for many people, especially in North America, "...planning, like AIDS, is to be dreaded and avoided" (Jull, 1984: 13). This antipathy towards planning comes from two sides of the social spectrum. On the conservative side, megadevelopers and those who benefit from capitalist economic development correctly conclude that public planning, if effective, will interfere with their actions and the free operation of the market. On the other side, people who usually suffer the environmental and social costs of development, such as Native people in northern Canada, mistrust corporate and government planning because they have often experienced it as a form of co-optation and exploitation. To make planning more palatable than a deadly social disease and useful for the accomplishment of sustainable development, progressive planning processes must be generated and adopted.

3.1 Politics and Planning

Industrial capitalism has a built-in centralizing tendency which operates through the "center-periphery" or "metropolitan-hinterland" relationship (Galtung, 1978). In this exploitative process:

> The industrial, urban center tends initially to exploit the rural fringe--drawing from it labor and raw materials to which it applies capital and expertise to achieve financial gain. In time, however, the people of the peripheral area being exploited develop sufficient knowledge and sophistication to resist excessive exploitation....With independence and ability to resist exploitation, these areas become increasingly untractable, and it is desirable for the original imperial capital to develop secondary centers in the capitals of the Third World countries....These in turn begin to exploit their periphery---the Fourth World peoples who lack political power or real representation in the government, usually people of different ethnic groups. There is no Fifth World for them to exploit, however, and at some point, like now, it is necessary for the whole exploitation process to cease (Dasmann, 1984: 440).

This is where the sustainable development idea becomes important because it is an inherently political concept that can challenge the dominant development approach (Farvar and Glaeser, 1984). Thus, it should come as no surprise that planning for sustainable development has and is being eschewed by those who benefit from the traditional development mode.

Planning for sustainable development will not happen unless there is political will. This can only materialize through social pressure that leads to a change in the value systems of overdeveloped industrialized countries. These societies will have to redevelop in a sustainable fashion. In addition, indigenous and so-called underdeveloped nations will have to be allowed and encouraged to follow a sustainable development path. For this to occur, the "center-periphery" industrial society will have to be radically modified. That is, supporters of sustainable development will have to gain political power through evolution or revolution. While there are many ways this can be done, one of the more pragmatic paths may be planning in the public domain.

Historically, most planners working in the public domain have been interested in social change, but they have usually held one of at least two opposing views about how this is to be accomplished. According to Friedmann, "the dominant tradition of social reform deals with planning as a form of societal guidance; its radical counter is the tradition of social mobilization, which deals with planning in

a context of social transformation" (1987: 11-12). Both of these planning traditions arose as reactions to the social problems created by the irrationality of the capitalist political economy.

The social reform or societal guidance tradition evolved with the growth of the welfare state which combines some planning and sharing of wealth within the context of the market economy. Planners:

> As members of the state apparatus,...were inclined to see the managerial state as a guardian of the public interest and an instrument for social progress. So long as everyone played his part well, the system was fail-safe; the state would plan, the economy would produce, and working people would concentrate on their private agendas: raising families, enriching themselves, and consuming whatever came tumbling out from the cornucopia (ibid.: 8).

Although societal guidance theory acknowledges the need for social change, its primary purpose is for system maintenance. When change does occur it is mediated by the state and corporations which manage public affairs top-down through "...political practices that remain within the constraints of the political culture" (ibid.: 33). However, because it is so closely linked with the state, societal guidance cannot adequately deal with the global crisis of environmental decay, redundancy of labor, growing impoverishment, increasing indebtedness, and growing threat of nuclear holocaust.

The inability of the social reform tradition to bring about sufficient change led to a second major planning tradition---social mobilization. This tradition has been inspired by the practice of people all over the world who have been searching for an alternative to the state-dominated political economy of industrial capitalism. In Friedmann's words:

> Emancipatory movements have emerged to push for a more positive vision of the future than the present system-in-dominance holds out to us: a world working to eliminate the threat of a nuclear war and in serious pursuit of a balanced natural environment, gender equality, the abolition of racism, and the eradication of grinding poverty (ibid.: 10).

In these social movements and the radical planning efforts that support them, two central strategies have emerged to counter the state: "collective self-reliance in development and the recovery of political community" (ibid.). In other words, planning in the social mobilization stream aims to facilitate and promote efforts to build self-managing political communities.

Presently, of course, the bulk of planning in the public domain is related to societal guidance. In this study, the question arises as to which planning tradition will most likely lead to sustainable development in northern Canada? Will state-sponsored societal guidance forms, such as land-use planning in the Lancaster Sound region (Chapter 4 and 5), be sufficient? Or will there have to be radical social tranformation through the establishment of a decentralized political community such as Nunavut (Chapter 7) before northern development is made sustainable? If the latter is the case, what kind of planning system would be used and how might it be more effective than that developed by the Canadian nation state? If radical social transformation is required to achieve sustainable development, is it possible to get there through incremental changes such as those promoted by northern land-use planning? These and other questions will be addressed when the case studies are evaluated in subsequent chapters. For now, the general planning process will be summarized and an ideal model of land-use planning will be outlined.

3.2 The Planning Process

As argued earlier, regardless of which social change tradition we subscribe to there is a need for a public planning process and the allocative form of planning. That is, today, planning processes and methods are required for sustainable development whether it is done by the nation-state or by a smaller, partially autonomous local political community. Therefore, in this section we will investigate

the planning process, look at some of the development problems that have sparked an interest in northern land-use planning, and describe an ideal model of regional planning.

3.2.1 Planning Activities

Older schools of planning thought, such as the rationalistic synoptic tradition, viewed planning as a way of producing a product---the plan (Altshuler, 1965; Kent, 1964). At least until recently, many politicians and government administrators have also continued to stress the production of the "master plan". For example, the 1983 Northern Land Use Planning Basis of Agreement between the Canadian government and the GNWT refers to planning as a process, "...but the stress is on the production of land-use planning as formal and, by implication, static documents" (Richardson, 1987: 56). Rees goes further when he says that initially "DIAND apparently perceived planning as entirely product-oriented: that is, committed to the production of end-state master plans, followed by dissolution of key institutions, i.e., of the process itself" (1984: 12). While preparation of a "plan" is a necessary part of the planning process, it should not be thought of as the ultimate goal. Because the working definition of sustainable development discussed above (2.2.3) emphasizes adaptability to constantly changing or uncertain conditions, it is imperative that planning for sustainability be an on-going process rather the a "final" product.

Besides being a process, sound planning practice should exhibit other attributes which would make it potentially useful for accomplishing the kind of sustainable development defined earlier. Paraphrasing Roberts (1978), these characteristics are:

1) It is future oriented.

2) It is directed at achieving defined goals and objectives.
3) It places a high value on rational approaches.
4) It involves preparation of alternative scenarios.
5) It seeks to show that "everything is connected to everything else".

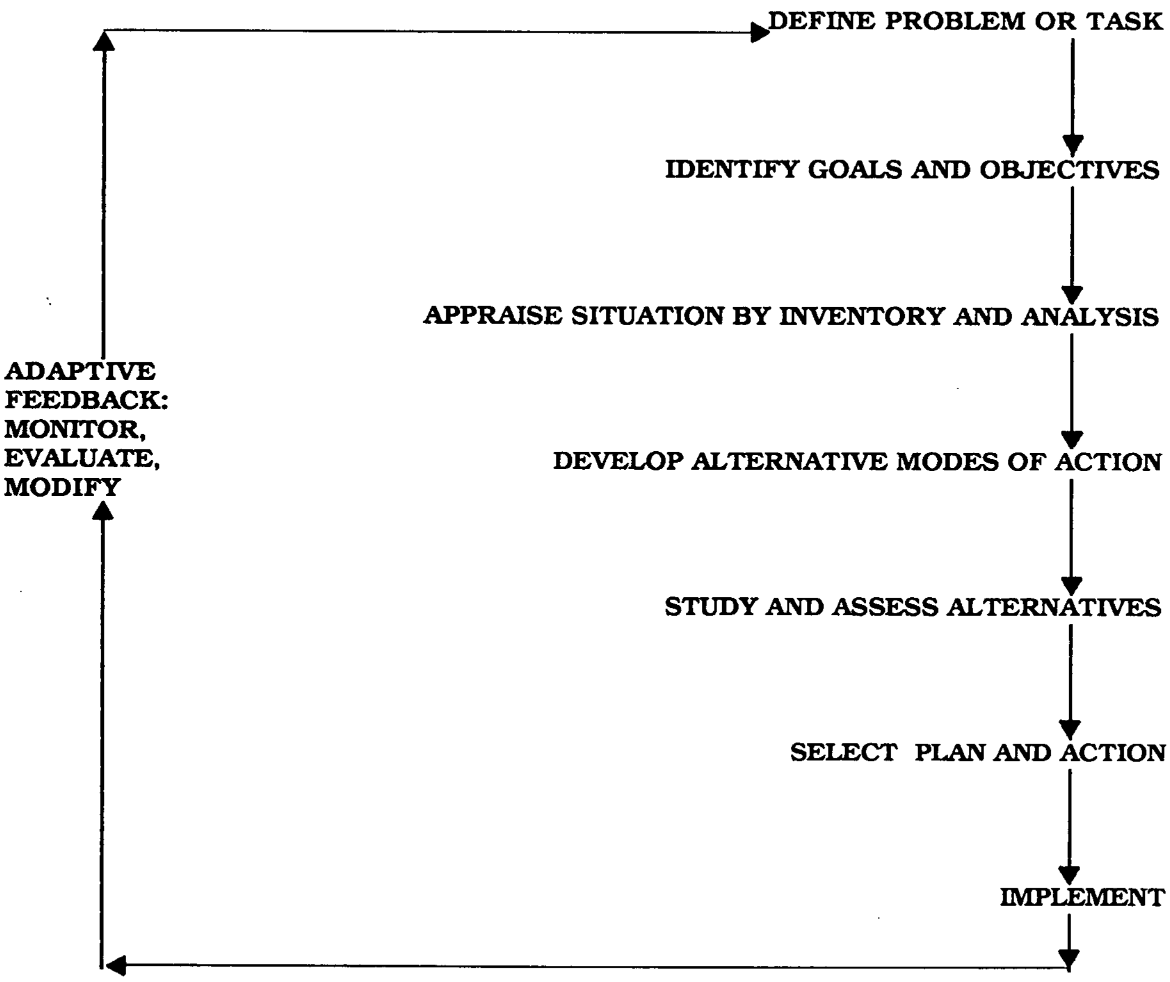
Put simply, to plan is to make decisions designed to achieve desirable future goals and "...involves little more than identifying alternate courses of action and making a rational choice among them" (Rees, 1978: 42).

There is an extensive literature which describes the ideal activities or tasks to be carried-out in public planning (e.g., Friedmann, 1987; Lang and Armour, 1980; Naysmith, 1975; Nesbitt, 1987; Rees, 1978; and Roberts, 1978). Although varying somewhat in detail, all of these discussions of planning tasks share a common structure which is diagrammed in Figure 2. It should be noted that, although the diagram shows a stepwise sequence, in reality there should be continual and extensive feedback throughout the progression. That is, as we work through the activity steps, we will often have to go back and revise what was decided at an earlier stage. For example, evaluation of action possibilities might uncover new goals which were previously unstated. Thus, again, planning "...is viewed as an open, dynamic process, susceptible to new knowledge or forces" (Roberts, 1978: 50). Indeed, we could think of this adaptive process as the real product of planning for sustainable development.

3.2.2 Land-Use Planning

Land is the basis of social well-being and almost "...all of the significant renewable and non-renewable natural resources important to society are intricately associated with the land" (Rees, 1987: 3). Furthermore, land-use reflects a society's basic cultural, economic, social and political values and goals. Therefore, the planning of land-use is necessitated by a variety of land-use issues (Fabos, 1985: 3-18; Manning, 1980).

FIGURE 2 A GENERAL SEQUENCE OF PLANNING ACTIVITIES



Adapted from Roberts (1978: 49).

According to Manning, these "land-use issues arise when all of society's or individual's demands on the land resource base cannot be simultaneously satisfied, because of the lack of adequate land of sufficient quality in appropriate locations to serve all requirements" (1986: 5). For example, year around use of the Polar 8 class icebreaker in Lancaster Sound may greatly restrict, if not eliminate, the use of sea ice for winter travel by Inuit hunters. In the Arctic, as elsewhere, land-use issues are underlain by three broad types of land-related concerns:

> a) the increasing demands on the limited resource base (allocation); b) the problem of land degradation with resulting loss of productive capacity (management); and c) problems of conflict with adjacent users (ibid.).

A well designed land-use planning framework should have mechanisms in place for addressing these matters.

Originally, land-use planning was thought of as an essential element of a legal system used in controlling land uses (Patterson, 1979). Now, however, it is viewed as a form of allocative planning which is "...concerned with the central disposition of scarce resources (financial, land, labor) among competing claimants or uses" (Friedmann, 1987: 33-34). More precisely, land-use planning is "an orderly process for making decisions about the location of undertakings and activities on the land and for resolving competing demands for the use of land and resources, based on predetermined policies and objectives" (Richardson, 1982: 6). That is, the planning process is applied to the problem of allocating, managing and resolving conflicts over the land resource.

As outlined in Chapter 2, mounting development pressures in northern Canada led to "...an increasing awareness of the composite value of northern land, including associated renewable as well as non-renewable resources, and a growing demand for rights to use land for a variety of purposes" Naysmith, 1975: 165). This growing consciousness of multiple resources and values gave rise to calls for

application of the general rules of comprehensive land-use planning to northern development. Some of these rules, given expression by Fabos, can be paraphrased as follows:

> 1. Development should be discouraged in areas of significant [biological, physical and aesthetic] resource value.
> 2. Development should be discouraged in areas of natural and manmade hazards.
> 3. Development should be encouraged in areas best suited for it [excluding areas 1 and 2].
> 4. The ecological "carrying capacity" of the regional environment should not be exceeded. (1985: 83).

For northern land-use planning, Naysmith (1975: 125-126) goes further by suggesting that a planning region be divided into four zones: 1) Occupancy-use areas (settled zones); 2) Integrated-use areas (renewable resource use zones); 3) Natural and scientific areas (parks and protected zones; and, 4) Extensive management areas (non-renewable resource megadevelopment zones). In any case, these rules or zones recognize the importance of cultural and natural diversity and argue for land-use planning that maintains options for conservation and sustainable development.

Also noted previously, the federal government's dual role of economic development and environmental protection in Canada's North causes considerable ambivalence which means that land-use planning has tended to be poorly informed, reactive and ad hoc and "...generally favour the interests of resource megadevelopers" (Dacks, 1981: 192). This unfortunate state of affairs has prompted the development of various versions of principles applicable to northern land-use planning (Dacks, 1981; Fabos, 1985; Fenge and Rees, 1987; Jacobs, 1985; Jones, 1983; Naysmith, 1975; Rees, 1983 and 1984; Richardson, 1982 and 1983; Roberts, 1978; Rueggeberg, 1983). Drawing from these sources, the principles can be summarized as follows:

> 1) Social goals should be established through the political process which will guide land-use planning.
> 2) Land-use planning should be approached comprehensively in the sense of fostering a holistic awareness of all possible alternative land-uses in an area, the effects of possible land-use decisions on the alternative uses, and the cumulative effects resulting from seemingly insignificant but uncontrolled land-use.

3) There should be systematic land-use planning where a set of procedural conventions are initially established and then followed consistently.
4) There should be a fair and open system of public participation, especially by northerners, in the land-use planning process.
5) Land-use planning should be done within very extensive territories preferably defined by appropriate biophysical and cultural parameters---e.g., ecocultural regions.
6) Decisions about land-use should be based on sound scientific and traditional Native knowledge of the northern environment.
7) Land-use planning should be a central component of a more extensive comprehensive regional conservation and development plan.
8) The rights of aboriginal people to self-government and full participation in land-use planning should be recognized. In addition, their cultural concepts regarding time, space, consensus decision- making, sharing and appropriate technology should be incorporated in the planning process.
9) Finally, the whole process should be enshrined in legislation and a single, representative, decentralized agency should be established to be accountable for enforcing compliance with land-use planning guidelines.

If these principles and others described below are followed, northern land-use planning will be more informed, pro-active, systematic and legitimate, making it a powerful force in achieving sustainable development. All of these principles are incorporated in the "process performance criteria" for sustainable development elaborated in section 3.4 below.

3.2.3 A Comprehensive Planning System

Environmental impact assessment (EIA), a tool for environmental management and planning, evolved in the 1960s as a response to growing public awareness that the escalating environmental and social costs of industrial development had to be mitigated and controlled. Broadly, EIA involves "...trying to establish in advance the likely environmental consequences of a particular proposal, and making use of this information to help determine whether or not the project should be permitted to proceed, and if so, on what terms and conditions" (Richardson, 1983: 110). The general model for environmental impact assessment is the U.S. National Environmental Policy Act of 1969 which has been adopted in

modified form, and usually without legislative mandate, by the Canadian federal and most provincial governments.

The EIA process has undoubtedly contributed to public debate and some useful decision-making regarding the balancing of economic development and environmental conservation. However, after almost two decades of Canadian experience with environmental impact assessment, a number of problems and deficiencies have been diagnosed (Boothroyd and Rees, 1984; Carley, 1984; CEARC and USNRC, 1986; Rees and Davis, 1978; Richardson, 1983; Sadler, 1986; Sonntag, et al, 1986). Drawing form these sources, some of the difficulties with EIA can be summarized as follows:

> 1) The purpose of the EIA is often vague, causing the content of the environmental impact statement (EIS) to be an unfocused inventory of little use to decision makers who by necessity are left to make their decisions subjectively and with minimal reference to the EIS.
> 2) The scope of the EIA is regularly ill-defined as to what extent impacts are to be considered in terms of time, space and secondary effects.
> 3) Traditional EIA is a reactive procedure applied to an already planned specific project making it ineffective for dealing with the cumulative impacts of on-going development.
> 4) There is rarely any *ex-post facto* monitoring of the impacts of a project to assess the accuracy of EIA predictions in order to facilitate adaptive planning and management.
> 5) Impact mitigation is usually viewed narrowly as an immediate site specific preventative measure rather than an opportunity for community and regional economic, social and political development.
> 6) Lastly, a persistent top-down approach to EIA has put it automatically in an adversarial situation wherein corporation and state are pitted against public interest groups and local residents.

Collectively, this list constitutes a serious critique of EIA, but it does not warrant the total abandonment of the concept. Instead, it warns that EIA should not be used as a substitute for regional land-use planning, which has been the general practice in northern Canada, and it bolsters the case for integrating EIA into such a comprehensive system.

All of the identified flaws in the EIA program have one overarching characteristic in common:

> They arise from carrying out impact assessment without a broader frame of reference; and their moral is that EIA cannot be regarded as an isolated, one-shot process unrelated to predetermined policies, objectives and guidelines, or carried out effectively in the absence of a continuing institutional mechanism and process within which it plays its own particular role (Richardson, 1983: 112).

This observation was verified empirically over a decade ago when a federal Environmental Assessment and Review Process (EARP) panel was established to deliberate on a proposal to do exploratory drilling for hydrocarbon resources in Lancaster Sound. In February, 1979, the Panel reported to the Minister of Environment and concluded that a "...meaningful assessment of exploratory drilling in Lancaster Sound could not be made in isolation from the broader issues that affect all uses of the area" (FEARO, 1979: 2). Accordingly, the EARP Panel recommended deferral of drilling until the issue of "best use" of Lancaster Sound was resolved. It further proclaimed the need for regional land-use planning to address northern development comprehensively and to provide guidelines for assessing individual resource development projects.

Most critics of the traditional EIA procedure have argued for its integration within a regional land-use planning framework. The characteristics of this ideal regional framework should follow the principles for northern land-use planning and project specific environmental (and social) impact assessment. Figure 3 shows such an ideal and hypothetical regional land-use planning model. Assuming Canadian society is interested in sustainable development in the North, social goals might fall into two broad categories of environment and economy. The environmental social goals might be elaborated through the public production of northern conservation strategies such as the one being presently produced in the Northwest Territories (Livingston and Bastedo, 1988). Economic social goals might be defined and promoted through a public planning process similar to the current Yukon 2000 project (Staples, 1988). Regional land-use planning and area-wide environmental assessment (Skidmore, et al, 1981) would then serve to circumscribe and assess

resource development and management objectives and programs. Within this comprehensive land-use framework, individual projects and procedures (e.g., copper mining or wildlife enhancement) could be effectively planned and assessed as to their impacts. Finally, regular and perpetual monitoring should be carried-out to provide continuous feedback to all components of the planning system. It is this last feature which makes the regional land-use planning system dynamic because it promotes social learning and adaptation.

With this kind of framework (Figure 3), land-use planning and environmental impact assessment become complementary and companion activities. As Munro puts it, "the former will contribute to the formulation of social goals and resource management objectives, and the latter will provide the detailed ecological information needed to consider specific issues and make decisions with respect to proposed changes" (1986: 29). The benefits of embedding EIA in a regional land-use plan and planning system can be stated even more explicitly:

> There is a known space and time frame to which the scope of environmental impacts can be related. There are known development objectives, standards and criteria against which they can be assessed. There is an institutional structure to ensure that monitoring can be carried out and its results fed back into the planning and EIA process (Richardson, 1983: 114).

With this anticipatory and integrative approach, the negative consequences of the cumulative nature of development can be managed, development projects can be planned to promote synergistic enhancement of the affected human communities, and conflicts over multiple use of the land resource can be more easily resolved. If adopted, such a positive and wide-ranging adaptive system would go far towards assuring sustainable development in Canada's North.

FIGURE 3 A COMPREHENSIVE LAND-USE PLANNING SYSTEM

FEEDBACK	FUNCTION	ACTIVITY
	1) Define and assure acceptance of social goals	Public dialogue and governmental processes
	2) Define resource development and management objectives congruent with social goals; and consider general environmental and social impacts of meeting objectives	Land-use planning
Redefine goals and objectives, re-plan programs, and re-design projects as required	3) Plan programs for specific resource management and development; review impact of these programs in more specific terms	Land-use planning, areawide impact assessment, and screening for social and environmental impact
	4) Design and implement projects and procedures to activate programs; assess environmental and social impact on site specific terms	Environmental impact assessment (and social impact assessment)
	5) Monitor results of projects and procedures in terms of achieving objectives and of impacts	Post-development audits

Adapted from Munro (1986: 27).

3.3 The Administration of Land-Use Control and Planning

We can design the best planning processes and systems in the world on paper, but, if existing institutional arrangements are incompatible with ideal models, implementation is problematical. Further, planning in the public domain requires political will, but even the best intentions of politicians can be thwarted by bureaucratic structures that are antagonistic to the idealized objectives and processes of sustainable development. Boschken (1982) has furnished a relevant analytical framework for a spectrum of institutional patterns and their affect on land-use decision-making. This framework has been slightly modified and adapted to the northern land-use planning arena by Rees (1983: 213-216 and 1984: 13-19). Since these authors have discussed the topic quite fully, the reader is referred to the original publications. What follows is a condensed version for use in evaluating the thesis case studies.

Boschken submits that, "in land use control, three major organizational patterns are evident: the unitary bureaucracy, the task-specific commission, and concurrent government" (1982: 29). The characteristics of these three patterns are summarized in Table II. Although each of the organizational forms has a unique history, there can be overlap with two or all three patterns co-existing---and sometimes competing---spatially and temporally. It should also be borne in mind that these are ideal types which may vary somewhat in the "real world".

The large, unitary bureaucracy emphasizes the decision rules of "bureaucratic efficiency" and "welfare-at-large"; and is "the predominant form of administration in land use control..." (ibid.: 30). It is based on the tacit assumption that society is made-up of a homogeneous, stable majority of people interacting in a predictable and unchanging environment. Strict administrative hierarchy and jurisdictional "imperialism" characterizes this pattern. Decision-making is centralized,

non-consultative, reliant on professional judgement, only accountable internally, and is generally hostile or indifferent to significant public participation. In sum, this institutional pattern evinces the out-dated rationalistic, synoptic, top-down, and "plan-as-product" style of planning. In northern Canada, the Department of Indian Affairs and Northern Development (DIAND) "...is clearly revealed as a textbook example of a unitary bureaucracy" (Rees, 1985: 15). Furthermore, it epitomizes the state dominated, societal guidance school of public planning.

Boschken states that "an emerging form of land use control is the specialized commission having regulatory jurisdiction either over areawide land use, as in the case of the Hawaii Land Use Commission, or over unique natural resources, such as the California coastal commissions" (1982: 34). These single-purpose or task-specific commissions represent an attempt, or at least an appearance, to "democratize" institutional arrangements for land-use planning. This structure implicitly assumes a stable but diverse social system operating in a changing environment. Within the commission itself, there is usually a hierarchical organization which relies on input from outside agencies, consultants, and interest groups to "...raise awareness of values and issues in conflict (e.g., through public hearings) (Rees, 1983: 215). In this pattern, the "welfare-at-large" doctrine is qualified by acknowledgement of the need to balance diverse social goals. There is a centralizing tendency in the commission's decision-making style, but it is often tempered by efforts to integrate competing technical and value perspectives. The planning style of the commission administrative pattern can vary enormously from the synoptic (planning-as-product) to the adaptive (planning-as-process) approach. Land-use commissions have been used in many Canadian jurisdictions (e.g., the Agricultural Land Commission in British Columbia and the Niagara Escarpment Commission in Ontario) (Audet and Le He´naff, 1984). In its initial proposed form, the Northern Land Use Planning

TABLE II INSTITUTIONS FOR LAND USE CONTROL AND PLANNING

FEATURES	UNITARY BUREAUCRACY	TASK-SPECIFIC COMMISSION	CONCURRENT GOVERNMENT
Social Assumptions	Homogenous Stable Majority; Static Environment	Stable Aggregate; Variable Environment	Pluralistic; Dynamic Environment
Administrative Structure	Unitary Hierarchy and Jurisdiction Over Multiple Functions	Internal Hierarchy	Non-hierarchical Interorganizational Network; Cooperating Multiple Jurisdictions
Decision Rules	Welfare-at-Large and Bureaucratic Efficiency	Balanced General Welfare	Process-Oriented Fairness and Social Effectivenes
Decision-Making Mode	Centralized; Non-Consultative Reliance on Internal Accountability and Professional Judgement	Centralizing Tendency; Variable Effort to Integrate Technical and Value Perspectives	Decentralized; Location Specific; Consultative; Consensus Building
Planning Style	Synoptic; Plan-as-Product Plan-as-Process	Variable	Adaptive;
Public Participation	Minimal; Policies and Values from Top-Down	Public Hearings to Resolve Value Conflicts	Multiple Forums for Public Input; Bottom-Up Policy Formation

Adapted from Boschken (1982: 43) and Rees (1983: 214).

Commission was to be essentially an unitary bureaucratic clone of the Ottawa-based Department of Indian Affairs and Northern Devlopment (DIAND, 1982).

The third administrative system, concurrent government, is "probably the most complex pattern of land use control..." and consists of "...multiple, specialized jurisdictions which form coordinated networks of responsibility around publicly raised problems or controversies" (Boschken, 1982: 36). Arising out of the Western pluralist tradition, this institutional form assures the interplay of multiple, overlapping interests in a dynamic environment. In its pure state, this pattern is a non-hierarchical network of cooperating multiple polities. The concurrent jurisdictions pattern stresses fairness and social effectiveness over administrative efficiency and aggregated social welfare. Adaptive, process-oriented planning is done with extensive public participation from the bottom-up to ensure consultation and consensus building. A good example of a conservative version of the concurrent pattern is Alberta's "system for integrated resource planning" (Petch, 1985).

Here, we are brought back full-circle to the questions asked in the deliberations on politics and planning (Section 3.1). Namely, what planning tradition---societal guidance or social mobilization---and what institutional arrangements---bureaucratic, commission, or concurrent pattern---will stimulate and perpetuate sustainable development in northern Canada? In its most radical expression, concurrent government would link decentralized, self-determining political communities through social mobilization to "...wrest from the political terrain still held by state and corporate capital expanding zones of liberation in which the new and self-reliant ways of production and democratic governance can flourish" (Friedmann, 1987: 412). Versions of this scenario are being put forward by many aboriginal groups in the Canadian North and other regions of the world. A compromise or, perhaps, intermediate step in political evolution, might be a cooperative management (co-management) (Pinkerton, 1987). Co-management:

> ...is an attempt to formalize a *de facto* situation of mutual dependence and interaction in resource [including land] management. It has also become a challenge to the legitimacy of the state, especially in the context of widespread loss of confidence in it as the steward of common property resources (McCay and Acheson, 1987: 32).

This rendition of concurrent governance occurs where power and decision-making is more or less equally shared by the state and local governments.

In the case studies that follow (Chapters 4, 5 and 7), existing or proposed institutional structures for land-use planning and control will be examined to see how they work and whether or not they can contribute to the potential attainment of sustainable development in the North.

3.4 Sustainable Development Processes

To repeat, evaluation of planning activities suitable for sustainable northern development is the central purpose of this thesis. Part of the evaluation framework consists of the sustainable development objectives described in Chapter 2. To complete the framework, it is necessary to integrate the foregoing deliberations about planning with explicit sustainable development processes. Previous parts of this chapter have identified and explained some of the institutions, principles and processes of planning, particularly land-use planning, which will contribute to developing northern Canada sustainably.

This section will summarize these idealized features and convert them to normative statements relevant to the case studies. Thus, these planning processes will be blended with the objectives of sustainable development to form a complete set of "performance criteria" which will be used to evaluate the on-going planning of land-use in Lancaster Sound and the projected Nunavut planning program (Chapters 6 and 7). It should be noted that, besides including material from antecedent sections of this chapter, extensive use has been made of Gardner's outline of sustainable

development processes (1987) and Rueggeberg's evaluative framework for northern land-use planning (1983).

3.4.1 Goal Seeking Processes

Planning processes should be goal seeking. *Explicit social goals should be selected, regularly evaluated, and regularly refined to guide all the other planning activities intended for sustainable development.* Mediation between individual and societal interests should be carried-out through the political process to foster the acceptance of common goals. Social goals should be value-oriented and stated in an innovative, positive, pro-active, and alternatives-generating fashion. Lastly, social goals must be expressed normatively, stressing priorities and values which can serve as the basis of policy formation in support of sustainable development.

In northern Canada, it is necessary to define social goals so that they take account of the desire and need for sustainable development as well as reflect local community preferences for aesthetic, cultural, and material benefits. In any schema of social goals appropriate for the North, it is especially important to consider the value system of northern aboriginal peoples, which accentuates cooperation and conservation. Finally, conservation strategies and economic development policies should be formulated and integrated into the assemblage of northern social goals.

3.4.2 Relational Processes

Planning processes should be made relational by encouraging a comprehensive and systematic approach to land-use planning. To be comprehensive, a regional land-use planning complex must be systems-oriented and recognize linkages between biophysical and sociocultural systems. The spatial and temporal

scale should be carefully and logically circumscribed in order to define the apposite decision-making arena. Ecocultural or bioregional entities should be delineated by local residents and should form the planning region. *A comprehensive or holistic land-use planning endeavor would identify all possible land-use alternatives, help decide which development options are most pertinent to the stated social goals, allow consideration of the cumulative effects of development, facilitate planning of relevant mitigative programs where one resource use threatens another, and generally assist in the realization of northern sustainable development.*

The land-use planning operation can be made systematic in several ways. A systematic sequence of planning tasks should be followed which would more or less include: 1) task identification; 2) goal and objectives generation; 3) inventory and analysis; 4) alternatives specification; 5) assessment of alternatives; 6) selection of action plan; and, 7) implementation. *Well defined and publically accepted procedures should be established and adhered to consistently to ensure fair representation of all interests.* If planning procedures and programs are changed, it should be done in the open with full public involvement. *There should be clearly designated, preferably legislated, guidelines, mandates, and responsibilities for all agencies and jurisdictions involved in land-use planning and control.* This would encourage public accountability for all land-use decisions and ensure adherence to the dynamically evolving land-use plans for a region.

3.4.3 Adaptive Processes

Adaptive processes which are experimental, dynamic, evolutionary, interactive, and self-reflective are necessary in planning for sustainable development. Planning systems should incorporate feedback and social learning to respond successfully to unexpected systemic perturbations and surprises.

The land-use planning should be reviewed at every stage of its development and operation to provide feedback and enhance system readjustment and refinement. Such anticipatory and preventative scanning should include post-development audits of environmental and social impact predictions as well as monitoring the methods and institutions used to implement the plans. Thus, the planning process truly becomes the product.

In the North, it is imperative that adaptive planning processes be instituted to maintain cultural and natural diversity as well as sustaining multiple development options for enhancing resilience. An adaptive planning system, designed for realizing northern sustainable development, must be embedded in the indigenous, small-scale political communities where immediate regulatory feedback is assured because of the visibility of the common ground and the human behaviour towards it.

3.4.4 Integrative Processes

Sustainable development requires integrated processes of planning which recognizes that all things are dynamically interconnected. Integrative processes, which are collaborative and trans-disciplinary, facilitate the maintenance of diversity and resiliency in natural and cultural systems.

Northern regional planning schemes should be designed to integrate explicit social goals, land-use planning and areawide assessment processes, environmental and social impact assessment procedures, and monitoring methods. This will bring about greater compatibility between social goals and objectives and specific conservation and development projects.

Integration of scientific and traditional indigenous knowledge should be an substantial component of northern land-use planning. Aboriginal interpretations of space, time, reciprocity, consensual decision making, and appropriate technology

should be incorporated in the land-use planning enterprise. Furthermore, modern resource management techniques should be integrated with indigenous resource management methods in recognition of their enduring and successful management of the commons.

Integrative processes should enhance consultation and public participation for the resolution and synthesis of conflicting interests and objectives. Moreover, the inherently political nature of northern land-use planning should be acknowledged and accepted. To fully achieve sustainable development, it will be necessary to bring about social transformation to a decentralized, self-reliant political community. Preliminary steps in that direction might be made through co-management by concurrent government. Full realization of this goal can come about only with the entrenchment of the aboriginal right to self-government in the Constitution of Canada, and with recognition of sovereign indigenous "homeland" governments.

If this last criterion was met, the national and international concern for sustainable development of the North would be harmonized with the wishes of the aboriginal northerners to pass on their land and culture intact to future generations. Planned sustainable development of Canada's North would run counter to the worldwide trend towards cultural genocide and environmental destruction. It would clearly be an uncommon future.

Thus far, ideal goals, objectives, processes, and procedures have been decribed and prescribed for the advancement of sustainable development globally and locally (northern Canada). In the remainder of this thesis, existing and projected planning programs will be described and evaluated as to their effectiveness in advancing sustainable development in Canada's North.

IV TOWARDS NORTHERN LAND USE PLANNING

In September 1986, the Lancaster Sound Regional Land Use Planning Commission was appointed by the Minister of Indian and Northern Affairs Canada and the GNWT Minister of Renewable Resources (NWTLUPC, 1988: 13). This seemingly insignificant event supposedly signalled acceptance of a new vision for the North by the government of Canada where, in the words of Ben Hubert (Chairman, Northwest Territories Land Use Planning Commission), planning will "...integrate the many forms of land use in a way that ensures conservation and sustainable development" (emphasis added) (NWTLUPC, 1987a: 5). For many Canadians, establishment of this regional commission marked a much sought after beginning for a comprehensive northern land-use planning program and the culmination of many years of effort by committed northerners and progressive southerners to achieve sustainable socio-economic development.

The struggle to convince senior government of the need for and desirability of land-use planning in northern Canada took place in a number of arenas. Probably the most famous was the Mackenzie Valley Pipeline Inquiry (Berger, 1977). The Berger Inquiry report recommended that northern pipeline construction be deferred for10 years and, more to the point, that a program of comprehensive land-use planning be inaugurated in the North to resolve the many existing and potential land-use conflicts exposed by the inquiry. However, the stage on which the script of northern land-use planning first played was Lancaster Sound in the High Arctic. There, a series of pivotal events have unfolded in the history of northern land-use planning. In the following sections of this chapter, a brief survey of these events and the subsequent administrative development of northern land-use planning will be presented. (Please note that mainly secondary sources were used and that the following two pieces were relied on heavily: Fenge, 1987 and Jacobs and Fenge, 1986).

4.1 Lancaster Sound Land-Use Decision-Making

Lancaster Sound itself is a deep marine channel cutting through the Canadian Arctic archipelago between Devon Island and the northern part of Baffin Island. It also forms the eastern"gate" of the famed Northwest Passage (Figure 4). The significance of this extraordinary place was made clear by The Working Group on the Lancaster Sound Regional Study:

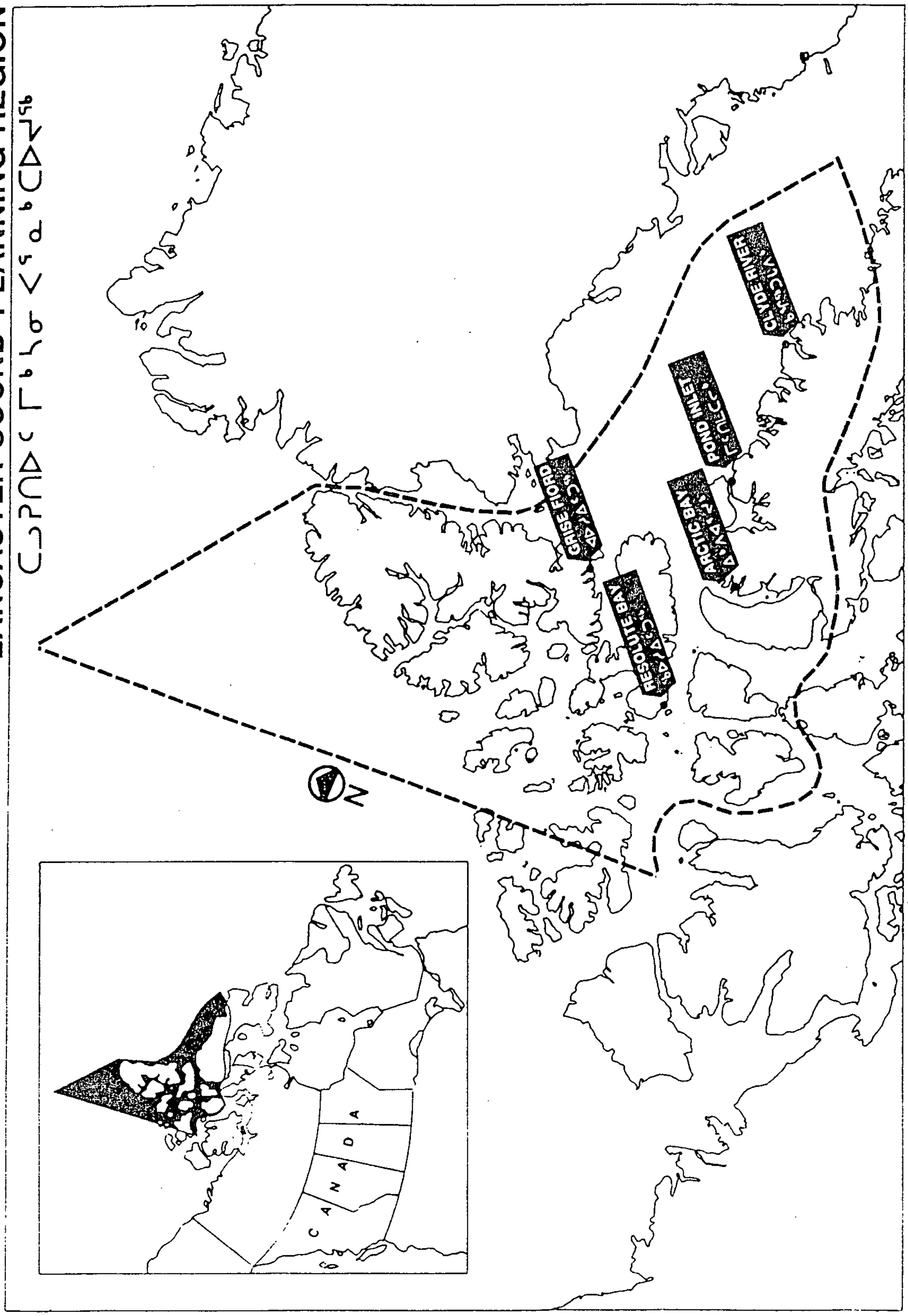
> Lancaster Sound, a magnificent part of Canada's High Arctic, poses a great challenge for Canadians planning for the future uses of our natural resources. Ecologically, the Sound is possibly the richest, most productive area in all the Arctic. Certainly, the long-term health of this special, indeed unique, environment is an important concern to us all (Dirschl, 1980: 1).

While it is certainly true that conservation and sustainable development of Lancaster Sound should be of concern to everyone, it is the indigenous people of the region who have the greatest stake in its future.

Lancaster Sound---which includes land, inland water, and the marine offshore---was lived on for millenia by the Inuit and their ancestors. Their aboriginal life-style, based on a sustainable economy of living off the land and its renewable resources, was first disturbed by European explorers as early as 1616. It was more profoundly disrupted by whalers who operated in the area in the mid to late 1900s, by fur traders who arrived in the early 20th century, and, finally, by the federal government which established its hegemony after World War II (Moll, 1987a: 2-5). The biggest changes have come recently, and almost overnight, because this Native homeland has also become a national frontier.

It has only been in the last few decades that the High Arctic has attracted the attention of industrial corporations interested in exploiting its rich non-renewable resources:

FIGURE 4 MAP OF LANCASTER SOUND



Adapted from LSRLUPC (1987b:9).

> Exploration for minerals in the Lancaster Sound region began in earnest in the late 1950s and early 1960s, and hydrocarbon exploration began a few years later. Two lead/zinc mines in the Lancaster Sound region came into production in the 1970s but approval for hydrocarbon drilling has not yet followed the completion of seismic exploration. Lancaster Sound is now used as a shipping lane to supply many Arctic communities and defense establishments and to export mineral ore (Jacobs and Fenge, 1986: 277).

The advent and acceleration of these industrial developments exacerbated the collision of cultures and the conflict over how land should be used in the North.

The governmental decision-making which facilitated the development of the two lead/zinc mines (Nanisivik and Polaris) in the region left much to be desired by the indigenous people and others interested in the northern environment. Gibson, who investigated the modus operandi behind the development of the Nanisivik mine concluded that:

> The federal government failed to ensure meaningful consultations with the people to be affected and proceeded without a thorough assessment of potential social impact, despite the spirit and letter of its own official northern development policy and the advice and recommendations of its own experts. Similarly, the government failed to carry out an environmental impact assessment or even to collect essential baseline data prior to the decision, in contravention of an explicit Cabinet directive which required such an assessment before any commitments or irrevocable decisions were made (1978: 149-150).

When this same sort of laissez faire attitude was taken in Cominco's proposal to develop the Polaris mine, the Inuit Tapirisat of Canada (ITC) and Canadian Arctic Resources Committee (CARC) took exception and raised concerns about the absence of full environmental and social impact assessments, the project's potential impingement on land claims negotiations, and its precedent setting influence on future northern mineral developments. Predictably, "the absence of a regional planning or regional development framework within which the Polaris project could be handled was also a major point raised by the groups" (Jacobs and Fenge, 1986: 280).

Arctic lands, including the offshore, were made available by the federal government for oil and gas leasing in 1961. By 1970, a consortium of companies

incorporated as Magnorth Petroleum Ltd. had control of exploration permits for around 14 million acres of offshore. Magnorth later entered into an operating agreement with the American-owned Norlands Petroleum Ltd. Norlands conducted extensive seismic surveys in 1973 and, on the strength of promising results in Lancaster Sound, applied for approval-in-principle to drill an exploratory well. Approval-in-principle was granted in 1974, for three years, subject to Norlands providing DIAND with more information about its drilling technology and conducting some environmental studies. A serendipitous set of bureaucratic bumbles and conscious delays, partly precipitated by increasing public awareness and concern about the North, prevented Norlands from commencing drilling in Lancaster Sound. By 1977, as a result of Justice Berger's inquiry, the climate of opinion about northern development had changed so dramatically that DIAND felt compelled to refer the Lancaster Sound drilling proposal to the Environmental Assessment Review Process (EARP). (See Davidson, 1981 for a thorough discussion and evaluation of hydrocarbon decison-making in Lancaster Sound).

During 1978, the EARP panel held informal public meetings in the communities surrounding Lancaster Sound to allow the Inuit to express their opinions and questions about the proposed drilling project. The Inuit's main concern was that they needed more time to adapt to the inevitable changes that follow industrial development. In addition, two sets of public hearings were held in Pond Inlet in the fall of 1978. These hearings were largely preoccupied with the project's technical aspects but they also became the forum for criticizing EARP and the Panel's procedures. Moreover, it became obvious that the Panel's purpose was unclear since Norlands was only requesting permission to drill one well in Lancaster Sound, while DIAND was seeking region-wide clearance for oil and gas exploration and development (Davidson, 1981; FEARO, 1979; Jacobs and Fenge, 1986).

In the end, the Panel concluded that "a meaningful assessment of exploratory drilling in Lancaster Sound could not be made in isolation from the broader issues that affect all uses of the area" (FEARO, 1979: 2). Furthermore, the Panel recommended deferral of drilling and went on to say:

> ...The panel recommends that the responsible federal coördinating and planning body (DIAND) use the time available from a deferment of drilling to address on an urgent basis, with adequate national and regional public input and taking into account the various forces at work, the best use(s) of the Lancaster Sound region (ibid.: 73).

Thus, the Lancaster Sound EARP process strongly reinforced Justice Berger's previous diagnosis of the need for regional land-use planning to provide a comprehensive context in which to judge specific development projects in northern Canada.

4.2 Green Papers: The Lancaster Sound Regional Study, 1980-1982

Shortly after release of the EARP report, DIAND responded to the recommendations for land-use planning by initiating the Lancaster Sound Regional Study. Its main goal was to:

> ...produce a compilation and assessment of the characteristics, resource potentials and competing uses of the Lancaster Sound region and to recommend development options based on the indentification of optimum allocations of land and marine areas, for the array of current and potential uses (Dirschl and Loken, 1979).

Regrettably, however, this project was not perceived of as a regional planning exercise. That is, as "...the then Minister of Indian Affairs and Northern Devlopment explained...this Green Paper was not intended as a 'blueprint for development' of the Lancaster Sound region but, rather, as a means of initiating public discussion on how the region should be managed in future" (Dirschl, 1980: 7). Regardless of this disclaimer, the Lancaster Sound Regional Study represented a new, more comprehensive approach to resource development and management issues in the

North and it was assumed that formal regional land-use planning would follow soon after release of the final Green Paper (Jacobs, 1981).

Coincidentally, and typically of the Federal government's actions in the North, at the same time (1980) that a planning-like response was unfolding for Lancaster Sound, another EARP panel was assessing the Arctic Pilot Project (APP). This proposal, put forward by Petro Canada, which involved the shipment of LNG through Lancaster Sound enroute to southern markets, again raised questions about the best use of this singular region. The APP Panel's review "...led to the conclusion that the project as presented is environmentally acceptable provided certain conditions are met" (FEARO, 1980: 3). This was another clear case of a project being reviewed in an ad hoc, isolated manner, ignoring Justice Berger's and the Lancaster Sound EARP Panel's advice that projects with potential cumulative and areawide effects must be considered within a comprehensive regional framework. Fortuitously, the Arctic Pilot Project did not get National Energy Board (NEB) approval and, therefore, did not compromise the evolution of regional planning in Lancaster Sound.

Initially, the Lancaster Sound Regional Study was divided into three phases: I) description of goals and objectives, compilation of information, and preparation of a draft Green Paper (Dirschl, 1980); II) public review of the draft (Jacobs, 1981); and, III) production of a final Green Paper outlining development options for submission to the Minister of DIAND (Dirschl, 1982). This last document, along with a report on a second public review (Jacobs and Palluq, 1983), was supposed to inform Ministerial decision-making and result in a "White" or policy paper. This policy statement, in turn, was to lead into a fourth phase (IV) of formal planning and management of Lancaster Sound.

The draft Green Paper was put together by a team of administrators and scientists seconded from the federal and territorial civil service. They built on the

results and recommendations emanating from an "environmental science workshop" on Lancaster Sound resource use issues sponsored by the Canadian Arctic Resources Committee (Roots, 1979). The conference had produced seven general principles concerning land-use in the region:

1) Maintain Biological Productivity and Environmental Quality
2) Emphasize Interrelationships Between Biological, Technical and Social Concerns
3) Encourage Integrated Environmental Management
4) Recognize Rights and Responsibilities of Northern Residents
5) Protect Special Areas
6) Promote Regional and Long-Term Management
7) Provide for Accident Prevention and Mitigation of Environmental Damage (ibid.: 5-7)

In addition to guiding the Green Paper exercise, these principles were adopted several years later as part of the General Terms of Reference for northern land-use planning in Lancaster Sound.

Maps and reports describing the environment and natural resource use in Lancaster Sound were produced by the participating agencies and their consultants. Involvement of Native people and integration of traditional knowledge in this process was limited to review by the Inuit of drafts of renewable resource harvesting maps. In late 1980, all of this information was brought together and published in the draft Green Paper (Dirschl, 1980). This document asked some fundamental questions about conservation and development in Lancaster Sound:

1) Should new major industrial development be deferred until safer technology and greater understanding of environmental, social, and economic relationships are available?
2) Should parks and reserves be formally designated before new industrial development is allowed?
3) Should shipping be expanded at this time to include year-around transportation of oil and gas?
4) Should there be a determined program to explore and develop the resources of the Lancaster Sound region? (ibid.: 83-92)

These specific questions were derived from a more basic one which asked the Canadian public: "what do you believe would be our best plan for the Lancaster Sound region" (ibid.: 1)?

Community meetings and two workshops, in Resolute Bay and Ottawa, were held in 1981 (Jacobs, 1981). For the Inuit people, the credibility of the Lancaster Sound Regional Study had been shaken by the federal government's unilateral initial approval of the Arctic Pilot Project and the Polaris Mine subsequent to announcement of the Green Paper exercise. Indeed, in the opinion of Peter Aglak, a participant in the Resolute workshop, the regional study was "...just a planning process for approval of hydrocarbon exploration and shipping routes" (ibid.: 38). Nevertheless, a report on this public review phase was released which generated numerous recommendations for completion of the Study. It also urged initiation of a comprehensive planning process:

> It is recommended that the proposed planning framework outlined in the [1981] policy paper of the department [DIAND] be tested forthwith in the Lancaster Sound region (ibid.: 41).

No immediate action was taken on this point, but DIAND published the final Green Paper a year later (Dirschl, 1982).

The second Green Paper set forth six options for the future of Lancaster Sound:

Option 1: No New Development
Option 2: Environmental Protection
Option 3: Renewable Resource Economy
Option 4: Northwest Passage Shipping
Option 5: Balanced Development
Option 6: Non-renewable Resource Economy (ibid: 24-29)

The Honourable John Munro stated, at a press conference held in Pond Inlet on July 30, 1982 to highlight the release of the final Green Paper, that "the fifth option set out in the Paper, namely the balanced development of renewable and non-renewable resources is the type of objective we should be orienting our policies to and has in fact been the policy of the Federal Government now and for perhaps as much as a decade" (Jacobs and Palluq, 1983: 9). Not everyone agreed with the DIAND Minister's

rewriting of northern development history nor was there substantial agreement about the definition of "balanced development".

The resource use options proposed in the final Green Paper were regarded as competitive and mutually exclusive:

> The Inuit, fearing the boom-and-bust effects of non-renewable resource exploitation, would prefer a stable economy based on renewable resource use....Most Inuit oppose further development now, feeling time is needed for social adjustment, the settlement of land claims, and the development of safer technology. Industry representatives emphasize that not all industrial activities have the same effects on the environment, and that drilling, mining and shipping are not incompatible uses of the region (Dirschl, 1982: 6).

Put another way, these polarized positions arose because the Inuit wanted to conserve first and develop second while the industries were unwilling to forego potential development in sizeable parts of the Lancaster Sound region.

Perhaps the best solution to this classic conflict was proposed in Resolute Bay where:

> ...the concept of a sequence of options for the future use of Lancaster Sound was introduced. The combination of option 2- environmental protection and option 3- renewable resource development, including the introduction of tourism, would occur over the next 5-10 years, subsequently option 5- balanced development might be introduced. (Jacobs and Palluq, 1983: 11).

Unfortunately, this far-sighted vision of sequential, paced, and potentially sustainable development for the North was not immediately sanctioned by senior governments or subscribed to by the public.

Even though there was no agreement on the desired direction of resource use, the Green Paper reports did reveal a firm consensus among all stakeholders that regional land-use planning should direct future resource development and management in Lancaster Sound. The last report, on the public review of the final Green Paper, reinforced this majority opinion and advised DIAND that "a creative and dynamic land use planning process can succeed in structuring "balanced development" but only if such a process is truly reflective of northern conditions and

perceptions" (ibid.: 3). Furthermore, "people expected to see a plan result from the Lancaster Sound Green Paper exercise which would lay out guidelines for all development in the region, but this did not occur" (Boutilier, et al, 1986: 15). The Lancaster Sound Regional Study was not advanced to the planning and management phase (IV) and, therefore, did not directly shape balanced and sustainable development of the region. Nonetheless, it did lay the groundwork for the further evolution of a comprehensive land-use planning policy in northern Canada.

4.3 Forming a Northern Land-Use Planning Policy

As early as 1980, and paralleling the commencement of the Lancaster Sound Regional Study, "...Canada's federal Department of Indian Affairs and Northern Development (DIAND) announced its intention to develop a generalized approach to land use planning for application in the Yukon and Northwest Territories" (Rees, 1984: 1). The first brief prepared by DIAND bureaucrats almost completely ignored environmental protection and the use of renewable resources, favouring, instead, non-renewable resource development. This singular approach to land-use planning "...reflected the hydrocarbon industry's critique of existing land management: too much land was being preserved, inadequate attention was being given to non-renewable resources, and greater central direction and co-ordination of government programmes was required" (Fenge, 1987: 30).

As well as downplaying the environment and renewable resource use, this first attempt to launch a land-use planning policy showed little sensitivity to the needs and rights of the northern indigenous peoples and made essentially no provision for public participation in the planning process. This oversight and rigidity was reflected in the proposals for institutionalizing land-use planning. Two alternative institutional arrangements for planning were envisioned:

> In the first approach [the unitary bureaucracy], planning groups within the federal and territorial governments would provide direction on land-use issues and each territory would have a federal-territorial co-ordinating committee, chaired by DIAND, to advise DIAND and its minister on land-use allocation issues. In the second approach [the single-purpose commission], land-use planning commissions responsible to the minister of Indian Affairs and Northern Development would be established and would be composed of members appointed by this minister and the commissioner of the Northwest Territories... (ibid.: 31).

Both of these institutional structures---the unitary bureaucracy and the single-purpose commission---were clearly designed to ensure retention of DIAND's decision-making authority and hegemony over northern development (cf. Boschken, 1982; Rees, 1983).

There was further revision of this problematic discussion paper and in late 1980 it was circulated to federal agencies and the territorial governments for review. DIAND did not consult conservation, community, Native or, even, industry groups, "...but the Canadian Arctic Resources Committee (CARC) obtained a copy of the draft Cabinet discussion paper and criticized it for its centralist ideas" (Fenge, 1987: 31). DIAND's position was not only criticized by public interest groups, but also received negative comments from other government agencies. Industrial growth-oriented departments like Energy, Mines and Resources (EMR) wanted assurances that its mandate for development would not be threatened, while conservationist agencies such as the Department of Environment (DOE) felt the proposed process gave too much support to industry and was too controlled by DIAND. In short, no one was satisfied.

Responding to all of the negative criticism, DIAND convened a policy workshop bringing together government and academic planners to redesign its land-use planning proposal. This conference resulted in:

> Summary presentations by working groups at the final plenary session [which] stressed the inportance of planning as a <u>process</u> for consensus-building rather than a <u>product</u>; emphasized the need for some form of effective local participation in decision-making; connected planning to land claims and northern political and

> constitutional development; and stressed the need for political commitment to get things moving (Fenge, 1987: 32).

Reflecting very little of this sound advice, an amended Northern Land Use Planning Policy was approved by the federal Cabinet in July of 1981.

This refurbished, but essentially unchanged, policy statement was not forthcoming about how the planning process would work and what a finished land-use plan would look like. In brief:

> The land-use planning policy would have imposed hierarchical, centrally directed, and potentially rigid structures on an ever-changing situation, when a flexible planning system was required to accommodate political, social, and economic change. The planning policy accurately reflected the legal division of responsibilities between the federal and territorial governments, but it was hopelessly out of step with political and social realities and, therefore, unworkable (ibid.: 35).

Practically no one living in the North and/or interested in its future agreed with this version of northern land-use policy.

Academics suggested radical alternatives (Rees, 1983 and 1984); GNWT civil servants proposed a "decentralized" process (Simmons, Donihee and Monaghan, 1984); the Yukon Territorial Government (YTG) used the opportunity to promulgate a Planning Act which was linked to its political agenda for achieving provincial status (Staples, 1983); and Native organizations expressed "serious reservations" about the policy (Fenge, 1987).

In sum, the major criticisms leveled at this draft planning policy by these and other commentators are as follows:

1) Policy committees and planning commissions were to be appointed by the federal Minister of DIAND and northerners were given very little decision-making authority. This was the classic top-down approach to planning.

2) Land-use planning was not linked with regional socio-economic planning and the planning policy reflected a southern-directed pro-development bias on the part of DIAND.

3) There was a heavy emphasis on planning-as-a-product rather than on planning-as-a-process. Planning was seen as essentially a one-time effort that would settle land-use conflicts once and for all.

4) Although public involvement was recognized as important, it was merely encouraged rather than facilitated and there was apparent confusion between public information and public involvement.

5) There was no legislated mandate for land-use planning or even any unambiguous compliance mechanism to ensure implementation of and adherence to the plan. Implementation was to be achieved through bureaucratic and corporate goodwill.

6) There were no provisions for periodic review and amendment of the plan. Likewise there were no procedures for public appeal of the plan's directives. In other words, there was no conception of the importance of monitoring or adaptive planning.

Responding to these and other criticisms, DIAND went back to the "drawing board".

In October 1982 DIAND selectively released its portentious draft implementation strategy. Like its policy precursors:

> The implementation strategy continued to divorce the planned allocation of land from social and economic development at the community level. Land-use planning still seemed intended to implement the federal interest in the North and was unlikely to serve local or regional interests (Fenge, 1987: 37).

Northern groups and southern sympathizers recycled their earlier criticisms of the original policy. Further, they observed that:

> ...northerners are given little decision-making authority in the development or implementation of...plans. The minister would provide the terms of reference and planning priorities, would appoint the policy committees and planning commissions, would choose the desired alternative, and then would approve his own choice (Rees, 1983: 209).

Faced with seemingly united opposition from aboriginal organizations, public interest groups, and its own territorial governments, the Federal government finally agreed to negotiate the conditions of a land-use policy.

First, DIAND and the GNWT agreed on a planning program which called for the sharing of all planning tasks including goal setting, creation, approval and implementation. Second, Native organizations were encouraged to negotiate their involvement and, on May 5, 1983, in a press release from the three major aboriginal groups, they announced that a joint statement of principles for guiding land-use planning had been accepted by the Federal and territorial governments (Tungavik Federation of Nunavut [TFN], 1983: 197). This then led to the Basis of Agreement for

Land Use Planning in the Northwest Territories which received approval on July 28, 1983.

For the first time, a policy document appeared to meet the needs of northern peoples for sustainable socio-economic development as well as promote conservation of the northern environment upon which such development depends. This policy direction was confirmed by government adoption of principles put forward by the three Native organizations. These became the General Principles to Guide Land Use Planning. In an abridged form, they include:

1..1 Man is a functional part of a dynamic biophysical environment and land use cannot be planned and managed without reference to the human community.
1.2 The primary purpose of land use planning in the N.W.T. must be to protect and promote the existing and future well-being of the permanent residents and communities of the N.W.T., taking into account the interests of all Canadians.
1.3 The planning process must ensure that land use plans reflect the priorities and values of the residents of the planning regions.
1.4 The plans will provide for the conservation, development and utilization of land, resources, inland waters and the offshore.
1.5 To be effective, the public planning process must provide an opportunity for the active and informed participation and support of the residents affected by the plan.
1.6 The planning process must be systematifc, and must be integrated with all other planning processes and operations.
1.7 It is acknowledged that an effective land use planning process requires the active participation of the Government of Canada, the Government of the Northwest Territories, and regional and territorial organizations representing aboriginal people.
1.8 It is recognized that the funding and other resources shall be made available for the system, and be provided equitably to allow each of the major participants referred to in paragraph 1.7 to participate effectively (TFN, et al, 1983: 198).

It appeared that this new negotiated planning system represented a radically different approach from the one first promulgated by DIAND in 1980.

Despite the fact that the tripartite agreement brought northern land-use planning closer to reality, there were still many hurdles to jump. For example, the

Prime Minister's Office felt the 1983 Basis of Agreement entailed serious constitutional change by giving up too much Federal government power over the management of lands and resources in the North. After a significant delay in the planning initiative, a letter of agreement between the GNWT and DIAND was signed in June of 1984, but this still did not get the planning process moving.

Eventually, in the summer of 1985, the Minister of DIAND gave his full blessing to the planning program and he secured a budget which supported the appointment of the Northwest Territories Land Use Planning Commission in January of 1986. Finally, as mentioned before, the Lancaster Sound Regional Land Use Planning Commission was appointed in September, 1986 and a whole new cycle of northern land-use planning started. (See Table III for highlights of Northern Land Use Planning Chronology). The history of this next phase, from 1986 to present, will be described in Chapter V.

To conclude this brief look at the history of northern land-use planning policy prior to 1986, it might be useful summarize with a few main points:

- The need for land-use planning in the North, and Lancaster Sound in particular, had been recognized for almost a decade, yet the Canadian government has been very slow to develop a viable planning policy.

- The land-use planning policy, even after going through several drafts, exhibits many flaws including:
    1) Top-down versus bottom-up.
    2) Unintegrated with regional socio-economic planning.
    3) Planning seen as product rather than process.
    4) Implementation by goodwill versus legislation or regulation.
    5) Public information confused with public participation.
    6) No provision for plan monitoring and amendment.

- As the first comprehensive planning exercise attempted under the auspices of the Northern Land Use Planning Policy, the Lancaster Sound Regional Land Use Planning Program should innovate in ways of thinking about and doing planning for sustainable development in the North.

- Finally, in order to establish public credibility, Northern Land Use Planning, as practiced in Lancaster Sound and elsewhere, must not only be seen to do planning, but must also produce a workable plan that functions in an on-going development process.

TABLE III NORTHERN LAND USE PLANNING CHRONOLOGY

DATE	EVENT
May 1977	The Mackenzie Valley Pipeline Inquiry released its report.
February 1979	The EARP Panel released its Lancaster Sound Report regarding Norlands Petroleum drilling proposals.
November 1980	The Department of Indian Affairs and Northern Development (DIAND) forwarded its first draft of the Cabinet Paper on land-use planning to other federal departments and the territorial government.
July 1981	The Minister of DIAND announced the Cabinet Policy on northern land-use planning.
January 1982	DIAND released the Green Paper on "The Lancaster Sound Region: 1980-2000".
February 1982	The National Energy Board began hearings on the Arctic Pilot Project.
October 1982	DIAND released a draft document entitled "Land Use Planning in Northern Canada".
July 1983	The federal and territorial governments, the Dene Nation, the Metis Association of N.W.T. and the TFN signed the "Basis of Agreement" for land-use planning in the Northwest Territories.
February 1984	Cabinet approved "Basis of Agreement" subject to Treasury Board approval.
September 1984	The Land Use Planning Policy Advisory Committee met for the first time.
January 1986	The N.W.T. Land Use Planning Commission was established.
September 1986	The Lancaster Sound Regional Land Use Planning Commission was appointed.

A policy, such as the Northern Land Use Planning Policy, should be judged not only by the stated intentions of a governing body, but also the actions it takes (Dacks, 1981: 211-216). Therefore, the Lancaster Sound case study of policy application will uncover what the "real" government policy is regarding northern land-use planning. It will also expose logical inconsistencies and technical difficulties which inevitably occur, no matter how good intentions are when political concepts (policies) are translated into action in the public domain.

V APPLICATION OF LAND USE PLANNING: THE LANCASTER SOUND CASE

The stated central goal of the Northwest Territories Land Use Planning Commission is to facilitate conservation and sustainable development through comprehensive land-use planning (NWTLUPC, 1987a: 5). In this chapter and subsequent ones, the processes and currently available products of the Lancaster Sound Regional Land Use Plan will be described and analyzed to see if the Plan achieves the Commission's goal.

5.1 The Lancaster Sound Planning Region

According to the 1983 "Basis of Agreement", the Land Use Planning Policy Advisory Committee is responsible for identifying planning regions (DIAND and GNWT, 1983: 6: 5.2.6 ii and iii). Furthermore, the "General Terms of Reference for Land Use Planning in Lancaster Sound" issued by the DIAND Minister, with advice from the Policy Advisory Committee and in consultation with the NWTLUPC, specifies how planning region boundaries are to be established:

1. Boundaries of a planning region will be determined by the Land Use Planning Commission [NWTLUPC] in consultation with the communities and interests affected by the issues being addressed.
2. Boundaries may need to be flexible to address transboundary issues.
3. Where possible, planning region boundaries should be compatible with other existing boundaries (e.g. land claims, petroleum leases, political, harvest areas, etc.) (NWTLUPC, 1986: 2).

The present regional boundaries are mostly northerly and easterly extensions of those established in the Green Paper exercise.

The NWTLUPC defined the region as follows:

> The planning region for the Lancaster Sound Regional Land Use Planning Commission will be bounded on the west by the eastern boundary of the Inuvialiut Settlement Region (110 degrees west

> longitude), on the east by the Canada-Greenland international boundary, on the north by the limit of Canada's juridiction under International Law, and on the south by the primary areas of present day use by the people of Clyde River, Pond Inlet, Arctic Bay, and Resolute Bay [and Grise Fiord] (NWTLUPC, 1987b: 3).

In other words, the Lancaster Sound Planning Region is a nearly triangular shaped area, encompassing approximately 1.5 million square kilometers of the Arctic archipelago (Figure 4).

The physical, ecological and cultural heart of the planning region is Lancaster Sound proper. The Sound, which is 400 km long and 75-120 km wide lies between Baffin Island to the south and Devon Island on the north. To the west, the Sound connects to a complex network of straits and passages in the Arctic archipelago and in the east its mouth flares open into Baffin Bay. Ecologically:

> The Sound acts as a funnel for various marine currents which interact to produce high nutrient cycling and biological productivity while varied ice conditions and the particular coastal and underwater topography provide nesting and breeding sites for many species of marine birds and mammals in close proximity to their feeding grounds. As a result, a significant part of the marine-associated wildlife of the eastern Canadian Arctic concentrates in the Sound and the contiguous marine channels during some part of the year. For example, 40 percent of North America's white (beluga) whales and 85 percent of narwhals [plus a significant population of Bowheads] pass into or through the Sound in the summer and, out of a total of 8.3 million colonial seabirds in Eastern Canada, three million nest in the Lancaster Sound region.
>
> The adjacent coastal zones and uplands of Devon, Bylot, Cornwallis and Somerset islands, and the northern peninsulas of vast Baffin Island, also contribute to the region's biological richness with populations of many snow geese, caribou, muskoxen and other species [e.g., polar bear and wolf] (Dirschl, 1980: 3).

Albeit that the marine and terrestrial animal life has intrinsic value, this incredibly diverse and rich northern ecosystem has also supported the Inuit culture for thousands of years. Furthermore, renewable resources, including the abundant wildlife, continue to be vitally important to the modern day indigenous inhabitants, numbering about 2,400, of the Lancaster Sound region.

The Lancaster Sound region, besides being a place rich in wildlife and awe-inspiring scenary, has had historical significance for people living outside its

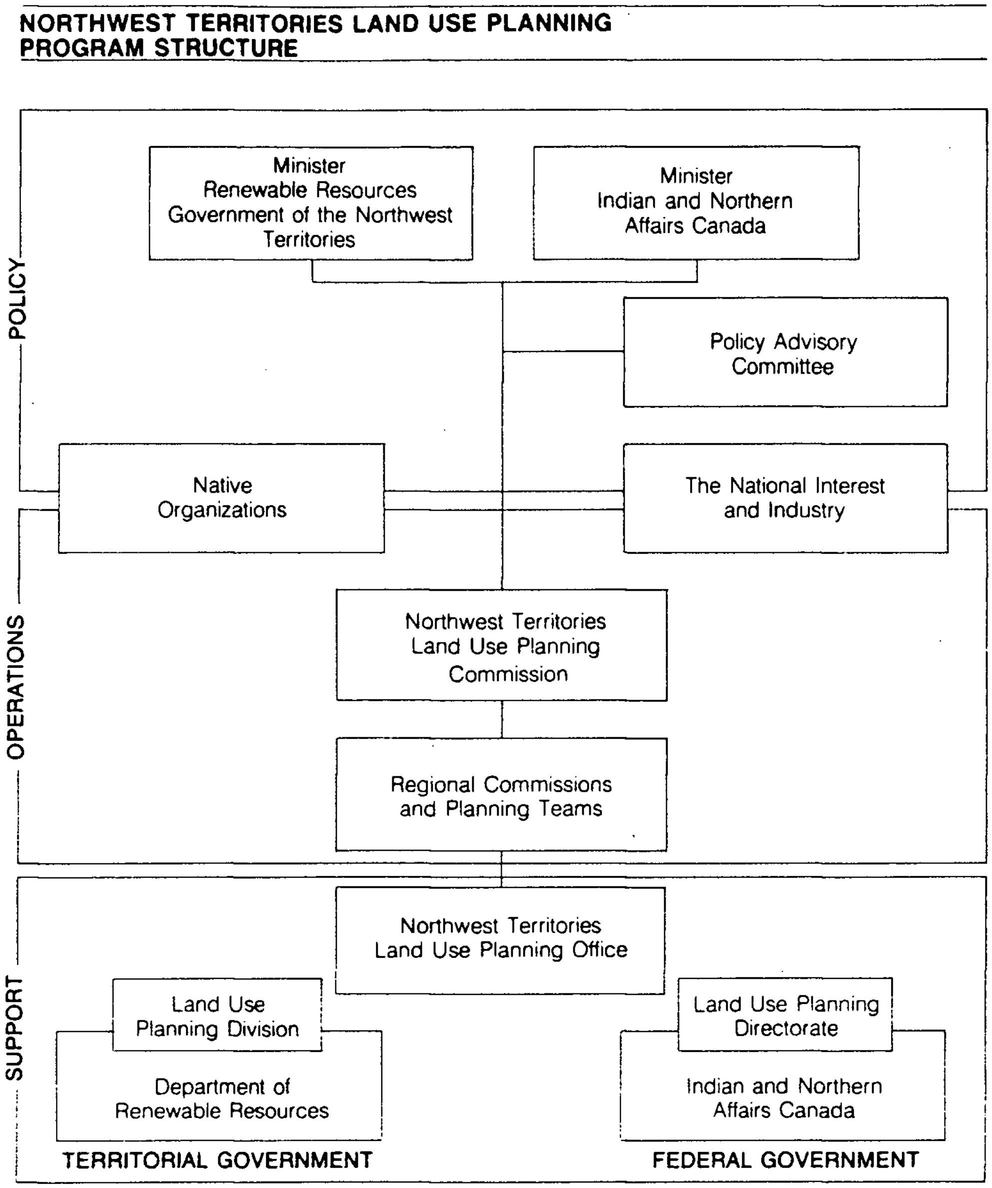
boundaries. The Sound is the eastern entrance of the celebrated Northwest Passage, "...a corridor of navigable water connecting the Atlantic and Pacific oceans which was first explored by Europeans during the 19th century" (ibid.: 5). Finally, as explained previously, Lancaster Sound is one of the few key locations---the Beaufort Sea and Mackenzie Valley being the others---on Canada's last frontier of resource exploitation and industrial colonization. This is why it plays such a salient role in the evolution of policy and planning for sustainable development in the North.

5.2 Creating Institutional Structure

Like all human behaviour, land-use planning is carried-out by people acting within the parameters of social institutions. The actors involved in planning are already members of existing institutions---such as the Department of Indian and Northern Affairs, the Canadian Petroleum Association, or the Tungavik Federation of Nunavut---but they must also interact in and with institutions which are created specifically to administer land-use planning. Such institutional arrangements for northern land-use planning went through numerous permutations (see Section 4.3) before crystalizing into the present form. As already noted, this current structure was mandated and prescribed in the "Basis of Agreement" finally signed by the GNWT and DIAND in 1984.

The institutional structure which evolved out of the "Basis of Agreement" is best described as a co-administered hierarchical structure (Figure 5). Starting at the top, the structure is headed by the Minister of Indian and Northern Affairs Canada (INAC) who reports to the Federal Cabinet and shares decision-making power with the GNWT Minister of Renewable Resources who is a member of the Executive Council of the GNWT. Ministers have overall responsibility for the land-use planning program. Specific functions are to:

FIGURE 5 NWT LAND USE PLANNING PROGRAM STRUCTURE



Adapted from NWTLUPC (1987:10).

> i) review the broad planning goals, objectives, variables and priorities developed by the [Policy Advisory] Committee[PAC], applying to all planning regions, and jointly accept, modify or reject such planning goals, etc.;
> (ii) review the land use plans developed by the [Northwest Territories Land Use Planning] Commission, and jointly accept, modify or reject such plans, after giving due consideration to the opinions of the Committee [PAC]; and
> (iii) as required, they may request the Commission [NWTLUPC] to review land use plans (DIAND and GNWT, 1983: 7: 5.3.1).

The Ministers are aided in policy formation activities by the Policy Advisory Committee (PAC) whose mandate is "...to advise the Ministers on the land use planning process throughout the N.W.T." (ibid.: 5.2.1). The PAC membership consists of Federal and Territorial government civil servants and representatives from the four major Native organizations (ibid.: 5.2.2). The Advisory Committee's functions include: (i) identifying broad planning goals, objectives, variables and priorities that apply to planning regions; (ii) identifying planning regions; (iii) establishing priorities among planning regions; (iv) reviewing and advising on final terms of reference for planning regions; (v) advising and making recommendations on the human and financial resources required for planning; and (vi) conducting a detailed review of the current land-use planning initiative at the conclusion of two years of operation (ibid.: 6-7: 5.2.6). The Land Use Planning Policy Advisory Committee met for the first time in September, 1984 and subsequently worked with the two Ministers to formulate the terms of reference for the territorial and regional planning commissions.

The next level of jurisdiction in the institutional arrangements is the Northwest Territories Land Use Planning Commission which was "...establishied to carry out the major responsibility for developing land use plans in the N.W.T." (ibid.: 3: 5.1.1). In conformance with the 1983 agreement:

> The size and makeup of the membership of the commission may vary, but the Federal and Territorial Governments shall each recommend at least one member and the appropriate aboriginal organizations shall recommend in total a number of members equal to the number recommended by the two levels of government combined. The Commission members will be appointed by the Minister of Indian

Affairs and Northern Development from the above noted recommendations (Ibid.: 4: 5.1.3).

The duties of the NWT Planning Commission are: (i) disseminate information and data; (ii) solicit opinions from residents and others about planning goals, options and objectives of the region; (iii) prepare and circulate draft plans; (iv) promote public awareness and discussion, and conduct public hearings and debate throughout the planning process; (v) recommend plans to the two Ministers; (iv) consider amendments to plans upon the request of the two Ministers; and (vii) initiate reviews of proposed activities which are at variance with a plan and advise the Ministers accordingly (ibid.: 4-5: 5.1.7). In January, 1986, the NWT Land Use Planning Commission was established, met for the first time in March, received its Terms of Reference in May, and announced appointment of a six-person Lancaster Sound Regional Land Use Planning Commission in June, 1986.

Moving down the organizational ladder, the regional commissions and their planning teams form the next operational level (Figure 5). The Lancaster Sound Regional Commission was established by the NWTLUPC and has 6 members selected from the Northwest Territories Commission and from within the region. As noted earlier, "General Terms of Reference for Land Use Planning in Lancaster Sound" were advanced by the two Ministers and the PAC in October, 1986 (DIAND, 1986), but detailed "Terms of Reference for the Lancaster Sound Regional Land Use Planning Commission" were prepared by the NWTLUPC later in 1986. This document defined "...for the Regional Commission its goals, its principles, its area of interest, its scope and the process to be followed" (NWTLUPC, 1986: 1). In developing a regional land-use plan for Lancaster Sound, the Regional Commission is to meet the following objectives:

1. Identify issues, opportunities, and constraints for land use;
2. Minimize land use conflicts;
3. Advise on the preferred use(s) of land and other resources within the planning region;

4. Recommend simple, clear and accountable decision making processes, as well as clear guidelines for land use allocation and environmental protection;
5. Recommend ways to publicize the existence and objectives of the plan (ibid.).

The Regional Commission is responsible for realizing the concept of community-based planning by "...taking the planning process to local people and ensuring that they have a voice in the development and implementation of land use plans for their region"(NWTLUPC, 1988: 21). To facilitate this, in October and November of 1986, community field workers were selected. They were joined by professional planners from the supporting Northwest Territories Land Use Planning Office to form planning teams in each community of the region.

The Regional Commission, aided by these planning teams and the Planning Office, was mandated to deliver a planning product which would include the following aspects:

• The regional land use plan shall address and make recommendations in the following policy and issue areas:
  - Conservation
  - Renewable Resources
  - Community Development
  - Transportation and Communications
  - Tourism
  - Mineral Exploration and Development
  - Oil and Gas Exploration and Development
  - Sovereignty and Defense

• Recommendations regarding the resolution of existing and future land use conflicts will form part of the plan.
• The plan will identify whether existing pieces of legislation and policy need to be changed in order to support the plan, and whether new policies, legislation, regulations, and/or decision-making processes are required.
• The plan will identify areas suitable for single use, areas where more than one use can be accommodated only with special controls and areas where many users can be accommodated without significant disruption to other users.
• The plan will identify areas in which further research or mapping is required.
• The plan will include an implementation strategy and a process for amendment.
• Community development within the context of land use planning does not include town planning, but will be compatible with it (NWTLUPC, 1987b: 3).

Finally, and most importantly from the point of view of local participation, the terms of reference for the LSRLUPC stated that "...the regional plan must be reviewed by adjacent communities and their comments reflected in the draft plan and completed plan" (ibid.).

Two additional features of the Northwest Territories Land Use Planning institutional system include the Land Use Planning Office (NLUPO) and the so-called Planning Partners. The planning office, staffed by professional administrators and planners, acts as a secretariat to the NWTLUPC; and it provides administrative and technical support, as well as planning advice, to the regional commissions. The Planning Partners are the DIAND Land Use Planning Directorate, the GNWT Regional Land Use Planning Division, and the four major aboriginal organizations---the Dene Nation, the Metis Association of the NWT, the Inuvialiut Land Administration, and the Tungavik Federation of Nunavut. These Native groups agreed to participate in the planning program, tangentially to their land claims negotiations, in order to increase community participation, facilitate the integration of local knowledge into the planning process, and ensure protection of the lands and resources which they are claiming. Last, but not least, public interests are supposedly served because "opportunities exist for industry and the interest groups to obtain information, voice concerns, present proposals on land use, and to offer comments on draft land use plans" (NWTLUPC, 1988: 22).

As should be evident from the above description and commentary, the institutional arrangements for land-use planning in the Northwest Territories are quite elaborate. They attempt to accommodate local participation in the planning process while maintaining political control from the center. Although this type of institutional structure, the single-purpose commission, appears to decentralize decision-making, in fact it merely deconcentrates it. With deconcentration, the "...local government level [the regional commission] remains tightly constrained by

central government in terms of finance, as well as specifications of objectives, norms and performance targets" (Hudson and Plum, 1984: 2). Consequently, while 4 out of 6 members of the Regional Commission are residents of the Lancaster Sound region, their funding and terms of reference are set by the Ministers responsible and their appointees from centralized agencies and organizations, including the major Native groups. While such a structure does enhance local participation in information production and plan design beyond that usually allowed by unitary bureaucracies, it does not increase local authority in the implementation, enforcement and monitoring of land-use plans.

5.3 Preparing to Plan

Following appointment of the territorial and regional commissions and establishment of the planning office, a schedule was prepared to guide the planning process for Lancaster Sound (Table IV). In addition, the first steps were taken towards preparing to plan. These efforts included drafting background reports, producing discussion papers, and organizing a planning procedures workshop.

5.3.1 Background Materials

Two reports were published in 1986 which provided some background for the anticipated planning program. The first one, entitled "Comparative Review of Regional Land Use Planning Approaches" was intended to assist the NWTLUPC in advancing appropriate regional planning procedures (NLUPO, 1986a). It consisted of a comparative and evaluative review of international regional planning examples. Most of the cases came from the circumpolar region of the world and included: Alaska, Finland, Greenland, Northern Scotland, Northern Soviet Union, Norway,

TABLE IV PLANNING PROCESS SCHEDULE

---

1) September 1986---Lancaster Sound Regional Commission appointed.

2) Oct./Nov. 1986---Fieldworkers selected; discussions and mapping started in communities.

3) February 1987---Regional Commission visited communities to determine and discuss issues of concern.

4) Mar./Apr. 1987---Workshops focused on issues and possible solutions with communities, government and industry.

5) June-Sept. 1987---Working groups analyzed issues and identified land-use options.

6) November 1987---Regional Commission's preferred land uses discussed with communities, government, industry and others.

7) December 1987---First draft plan prepared and submitted to N.W.T. Land Use Planning Commission, then to Ministers.

8) Feb.-May 1988---Workshops to define zones on Sensitivity Map and to prepare guidelines for operations.

9) June 1988---Draft 2 of land-use plan prepared based on comments on Draft 1 and results of workshops.

10) May-Sept. 1988---Issues analyses as required.

11) Oct.-Nov. 1988---Meetings with communities, governments, industries and interest groups to receive comments on Draft 2.

12) December 1988---Final Draft to be prepared for Ministers (delayed to 1989).

13) Ongoing---Plan implementation, monitoring, review and amendments.

and Sweden. Following a brief description of the geography and planning history of each area, details on the various planning approaches adopted in each area were analyzed with "...respect to land use issues, objectives, planning area definition, basic framework, public participation and plan implementation" (ibid.: 1). Finally, within the context of these six analytical questions, a synthesis and conclusions component identified unusual approaches, recurring themes, and lessons learned---positive and negative---for land-use planning in the Northwest Territories.

A second report, an "Issues, Information and Interests Catalogue for the Lancaster Sound Region", was probably of greater importance in launching and directing the Lancaster Sound planning process (Boutilier, et al, 1986). This document was a compendium of information about how well prepared people in the NWT and Lancaster Sound region were to commence land-use planning. It also broached "...special considerations, particularly operational conditions and requirements, that need[ed] to be addressed on a priority basis" (ibid.: 1). Some of the highlights included:

- "...Northern Land Use Planning must take a practical issue-specific approach to information gathering and analysis rather than an all encompassing 'comprehensive' approach" (ibid.: 2).

- "The strength of the final plan will only be as good as the relationships and capabilities developed with the communities" (ibid.: 14).

- "Informed participation of the region's residents must be promoted through ready access to all relevant information, widespread dissemination of materials, appropriate and realistic time schedules, and recruitment and training of local residents" (ibid.: 17).

- "As the Basis of Agreement is rather weak on the implementation of plans, and given the uncertainty of the life and funding of the Regional Planning Commission once a plan has been completed, the overlap and tie-in to Nunavut structures, as well as to existing Federal and Territorial legislation, becomes even more crucial than otherwise would be the case, particularly at the regional level" (ibid.: 20).

Later there will be an evaluation of the extent to which the various actors dealt with these and other considerations for land-use planning in the Lancaster Sound region.

"A Review of Legislative and Regulatory Processes Relevant to Land Use Planning in the Northwest Territories" was a discussion paper prepared early in 1986 to aid the NWTLUPC in comprehending the relationship between land-use planning and other governmental processes (NLUPO, 1986b). Some of the points were:

- In regard to EARP, "comprehensive land use planning will help to develop a policy framework in which to examine individual proposals" (ibid.: 4).

- Respecting land claims and division, "Should the territories divide as proposed into Denedeh and Nunavut, there may be a need to create two separate commissions. This will facilitate program delivery and promote regional planning" (ibid.: 6).

- Regarding the Frontier Energy Policy, "Social, economic and environmental concerns can be addressed through the Land Use Planning forum vis a vis the new Canada Petroleum Resources Act at a regional level rather than in a piece-meal and ad-hoc manner" (ibid.: 9).

- The Nielsen Task Force "...recommended that Land Use Planning should focus on developing practical guidelines rather than long term 'holistic' approaches when addressing the issue of multi-purpose land use" (ibid.: 10).

- For the Northern Mineral Policy, "the Land Use Planning Process could take a significant role in developing this policy by discussing some of the key mining issues related to land use" (ibid.: 12).

- In relation to Federal Water Policy, "the government of the N.W.T. has identified Land Use Planning as a means of achieving integration of land and water management" (ibid.: 14).

The reader should bear in mind that these were the perceptions, perhaps naive, of the NWTLUPC about their relationships to existing Federal, Territorial, Municipal, and Native organizations. These other agencies may not see their role in the so-called "cooperative process" of land use planning in the same light.

5.3.2 Training to Plan

As part of the preparation phase, a Land Use Planning Procedures Workshop was held in Fort Providence, NWT May 7-9, 1986 (Roberts, 1986). The workshop was conducted by a consulting firm (Praxis) and included members of the NWTLUPC, the planning partners and NLUPO staff. According to the workshop report:

> The three-day Planning Procedures Workshop was organized to move through a series of levels, starting with a generic overview of the planning process, procedures, products and timelines. This overview was then applied to the two specific "priority regions", the Beaufort Sea/Mackenzie Delta and Lancaster Sound. Finally, on the third day, a planning session was held to identify recommendations for the workshop participants to take to the Commission the following week (ibid.: 17).

A working paper prepared by Praxis argued that "...the 'comprehensive' plan is not the product which should be aimed for in a regional planning exercise..."; and "the heart of planning is not the plan but rather the regulatory and action mechanisms required for implementation" (ibid.: 21). A "good" land-use plan, according to Praxis, should:

- Be brief.
- Be prepared quickly.
- Be built upon existing policy (when it is available).
- Set out the broad strategic framework for the policies.
- Procedures for building consensus are thus a very important part of the plan-making and plan-implementing process.
- Policies in the plan need to be flexible and "guideline oriented" so as to not constrain future development options.
- Policies must be linked to action [e.g., regulations] (ibid.: 23).

Many of these recommendations seem to have been adopted, for better or worse, in the Lancaster Sound process and plan. However, the NWTLUPC may have ignored a profound caveat from the aboriginal planning partners who said "if you want to get the cooperation and support of the power-brokers in a community, it takes time" (ibid.: 65). A schedule which required production of a draft land-use plan in less than 18 months (Table 4) could be antithetical to the goals of enhancing public participation and social learning.

5.4 Identifying Information, Issues and Opportunities

In the last months of 1986 and in early1987, training workshops were held for the Regional Commission's planning field workers to teach them data collecting and mapping techniques. The spring and summer of 1987 was devoted to compiling

information about the Lancaster Sound Planning Region and soliciting opinion from both the communities and public interest groups regarding the key land-use issues and opportunities.

5.4.1 Information

A number of documents and publications were released by the Northern Land Use Planning Office to supplement the land-use data base for the region. One important resource study was an inventory and assesssment of "Non-Renewable Resources in the Lancaster Sound Land Use Planning Region" (Moll and Walker, 1987). As the authors explained, "...the purpose of this study [was] to provide background information on non-renewable resources, describe what type of resources are available and assess their potential in order to assist the Regional Commission in formulating their plans for the area" (ibid.: 1).

A general regional profile and detailed community profiles were produced to enhance understanding of the regional social environment (Moll, 1987a). These were organized into three parts:

1. a regional [or community] narrative describing history, human resources, economy and future prospects;
2. a section containing figures which illustrates historic and projected population figures, income from public, private and renewable sectors; and
3. a section of tables which provide the data used to prepare the graphics and text (ibid.: 2).

By describing the community and regional social and economic makeup, the profiles were intended to "...help the people of the region focus on where they have come from, where they are now, and where they are going" and to "...help the communities identify opportunities and constraints to development" (ibid.).

Finally, there were also two thorough studies of the socio-economic environment of the Lancaster Sound Region---"An Annotated Bibliography" (Moll,

1987b) and "An Assessment" (Moll, 1987c). The purpose of each "...was to seek as complete an understanding as possible about the Inuit and their way of life" (Moll,1987c: 4).

Probably the demographics presentation provided the single most compelling information in the profiles and socio-economic assessments. The main points raised were:

- During the last 25 years, from 1961 to 1986, the population of the Lancaster Sound planning region increased from 365 to 2,328 (Statistics Canada, Censuses). The population increase during this period was 638 percent.
- The region has a young population....[as of 1981] some 69 percent of the population was under the age of 24; 45 percent under the age of 14; and 18 percent under the age of 4.
- In 1981, the majority of residents were Inuit (88%) and the remainder were English-speaking government, education, or service industry employees, and miners. (Moll, 1987a: 6-7).

Projections, based on a 3 percent growth rate, suggest that by the year 2000 the regional population will be about 3,800 and very young. This situation presents enormous problems in planning for meaningful employment within the constraints of sustainable development.

5.4.2 Community Issues Workshop

During March of 1987, community issues workshops were held in Resolute Bay, Grise Fiord, Arctic Bay-Nanisivik, Pond Inlet, and Clyde River. The main purposes of these workshops were to elicit a community's concerns about land-use in their area, identify suggested areas for protection within their sphere of use, and map known and valued resources. Transcripts from these meetings provide insight about development issues important to the communities and the residents' understanding of the land-use planning process (LSRLUPC, 1987c). The following selected quotes

used to illustrate the tone of community workshops are drawn from those transcripts.

One of the major concerns raised in Resolute Bay centered on shipping and its effect on the environment and resources of Lancaster Sound. This was not a new issue, but it was accentuated by the Federal government's recent announcement of the construction of a Polar 8 icebreaker:

> Council Member: "What is the purpose for building the Polar 8, exploration, shipping assistance, or what exactly?"
> Coast Guard: "It has been designed at several times since 1972 basically to assist the 'anticipated' year-around shipping".
>
> Community Resident: "I just want to point out that there is a lot of shipping here already and this is greatly disturbing the sea mammals. There were hardly any whales last year and I think this is because of the increased shipping.
> Coast Guard: 'D.F.O. has been doing studies on the impact of ship noise on marine mammals, and we do know that narwhal and beluga flee from the noise, although in different ways....If land use planning recommends changes in laws and legislation (political decisions), then we will have the power and responsibility to take more concerns into consideration."

The other major interest expressed at Resolute Bay was in developing wilderness tourism and protecting its dependent environment.

At Grise Fiord, after a Regional Commission member made an opening statement about the goals and objectives of the Land Use Planning Program, several community hunters made pointed observations about the impact of non-renewable resource exploration on wildlife:

> Hunter 1: "In the past we found some starving muskox after seismic work had been carried out north of Grise Fiord".
>
> Hunter 2: "I had an unpleasant experience once when I went to the north of here for caribou hunting. There were seismic crews blasting without the knowledge of Grise Fiord. All the caribou were scared away by the noise they made, and since I only had a limited gas supply I could not go farther north to continue the hunt. They should have informed the Settlement before they started doing unpleasant things for the animals, which we harvest for food. We can plan better to avoid such unpleasant experiences".

Other concerns voiced at Grise Fiord included shipping schedules, activities of researchers in the area, and the lack of communication with the community by industry and government.

The meeting at Pond Inlet was relatively well attended and a variety of topics were raised and discussed: shipping, underwater noise pollution, polar bear management, impact of oil development, Canadian Wildlife Service sanctuaries, and tourism. Tourism was of interest to the residents of Pond Inlet, but there was concern about its negative impact:

> Question: "Why did Clyde River choose not to encourage tourism?"
> Answer: "...the people simply didn't want people poking around their homes and leaving garbage".

Conservation, what it meant and how it was to be accomplished, was another topic which occupied much of the workshop time.

At Arctic Bay-Nanisivik and Clyde River, hamlet representatives expressed concern about many of the same land-use issues discussed in the other Lancaster Sound communities. Because Arctic Bay is so dependent on the Nanasivik mine for its economic well-being, there was much discussion about the effect of the future mine closure and what can be done to compensate. This Northerner's mistrust of the boom/bust aspect of megadevelopments was echoed at Clyde River where a resident of Tuktoyaktuk was questioned about the impact of oil and gas development in the Mackenzie Delta region:

> Question: "What have been the impacts of development on the lifestyles in the community in general?"
> Answer: "The people in the community feel mixed-up and angry. The oil development brought employment for many people but the oil companies pulled out without warning and left people in financial trouble. I personally wouldn't want to go back to hunting because I know I wouldn't be as good as before and that it would be a harder way of life. The oil companies spoiled us at first with jobs but then left us without jobs and without land. Many young people haven't learned hunting skills".

Experiences like these have left northern indigenous peoples deeply desirous of better ways to plan development and they are hopeful that the Northern Land Use Planning Program will help give them a better future.

5.4.3 Lancaster Sound Issues and Opportunities

The Issues and Opportunities Workshop was held in April of 1987 at Resolute Bay. Independent facilitators led discussions in four working groups which focussed on the following areas: conservation and renewable resources; community development and tourism; transportation and communication; and non-renewable resources. The idea of this workshop was to bring together representatives from the Land Use Planning commissions and secretariat, communities, conservation organizations, Federal and Territorial government bureaucracies, and industry to discuss land use issues, development opportunities, and possible conflict resolution strategies. Unfortunately, industry, one of the key players in the northern planning process, was poorly represented with only 6 out of 54 participants at the workshop.

The workshop familiarized participants with the Commission's planning activities to date and gave them an opportunity to work on problems and possible solutions. The specific workshop objectives were:

> a. To develop a full understanding of priority issues and concerns and suggest solutions through initiation of a process for the integration of local knowledge and scientific information;
> b. To build on the communities' understanding of priority issues as identified with the Regional Commission and Planning Secretariat from November 1986 to April 1987 in terms of opportunities and constraints;
> c. To understand government, industry and interest groups issues, policies, and proposals (plans) and to compare them with the communities' priorities in order to converge on a unified set of opportunities and constraints on which to base subsequent management plan options;
> d. To identify gaps in information and priorities for further study;
> e. To identify and agree on the criteria necessary for assessing existing information focused on the policy areas and priority issues;
> f. To begin to anticipate future issues, opportunities and constraints with regard to trends, projections, and uncertainty.
> g. To illustrate to all involved that more can be gained by a co-operative, integrated approach than by piecemeal independent action in the region; and
> h. To refine ongoing communication and process tracking strategies. (Del Degan, 1987: 1-2)

This ambitious set of objectives was supposed to be accomplished in three day-long sessions. The first day was taken up acquainting and updating all participants with the Lancaster Sound Land Use Planning Program. Day two was spent in workshops identifying issues and opportunities in each of four thematic areas. Finally, on the third day, an attempt was made to resolve some of the actual and potential land-use conflicts.

While there was a consensus that the Land Use Planning process could and should be a vehicle for bringing all issues and priorities to the table for resolution, there was considerable debate about who should be the "driver". The communities made it clear that conservation, renewable resource enhancement, and, possibly, locally-controlled non-renewable resource development were their priorities. Conservation groups like The Nature Conservancy of Canada were in favour of large and numerous protected areas and were opposed to megaproject development in Lancaster Sound proper.

Industry and some government agencies, on the other hand, were not keen on government regulation of any kind, especially not by local communities. For example, a representative of the shipping industry categorically stated that "it is certainly not acceptable to the shipping community that the territorial government or the Arctic communities attempt to impose their will through any mechanism, including Land Use Planning, on commercial shipping" (Crosbie in Del Degan,1987). The mining industry's views, as represented by the Mining Working Group, recommended among other things that "land use planning must adopt the principle to 'leave open except where closure is necessary' rather than to 'restrict access except where demand is critical (for alternate uses)'" (Mining Working Group in Del Degan,1987: 7). Finally, along the same lines, the GNWT Energy, Mines and Resources Department stressed that "Land Use Planning must establish a positive open context for all development uses rather than a negative or restrictive one"

(GNWT EM&R in Del Degan, 1987: 6). Clearly these positions are potentially in conflict with the community desire to control and manage the development activities of the non-renewable resource sector.

The four facilitators at the workshop prepared evaluations of the process from their perspective. While most gave a neutral summary and seemed to suspend judgement, Jack Witty presented what appears to be a quite honest and expectable assessment. In brief, he said:

> My general impressions of the workshop are mixed....I did get mixed messages with regard to a degree of enthusiasm.
>
> From community representatives I had the feeling that they wanted to stop talking in vague terms and get down to dealing with "real" issues. The most troubling impression I had from community individuals is the heightened expectations of the final "product" of the Commission....
>
> From industry I think they could have done without the exercise. They question the utility of Resolute....There is, I think, some strong negative attitudes to deal with to bring industry on side....
>
> From government representatives I had the ho hum, another one, impression (Del Degan, 1987: 41).

Witty went on to say in his report that "as it stands at this point each party is convinced that their goals and priorities must carry the day for they are patently the correct ones!" (Witty in Del Degan, 1987: 18). In other words, as is often the case in land-use disputes, each actor or sector was taking a "non-negotiable" position. Hence, after identifying some issues, constraints and opportunities, the Lancaster Sound Planning Commission was still faced with how to find common ground among the different positions on land-use in order to produce a draft land-use plan.

5.5 Proposing Land Uses

A discussion paper entitled "Proposed Land Uses in the Lancaster Sound Planning Region" was released to the public in September, 1987 (LSRLUPC, 1987a). The package included a document and map which described the proposed approach of

the Lancaster Sound Regional Land Use Planning Commission to land-use planning in the region. The Acting Chairman of the LSRLUPC stressed that the document was not intended to be a draft Plan. Rather, it contained general principles that the Commission submitted for further development of the regional plan and a set of specific recommendations for particular areas. The document's primary audience was the community, government and industry actors who had been involved in the previous planning process activities. It was anticipated by the LSRLUPC that they would provide critical feedback for prepartion of the draft land-use plan.

The contents of the discussion paper included: a Goal statement; establishment of Starting Points; The Plan; discussion of Administrative Matters; and a section on Further Information. In the following few paragraphs, this document will be very briefly summarized to give the reader a feel for its content and tenor.

Two major points were made in the Goal statement:

> It is the intent of the Lancaster Sound Regional Land Use Planning Commission to prepare a land use plan which allows a wide variety of activities to proceed within the planning region under the basic premise that no activity shall damage the renewable resources of the region.
>
> The Commission has attempted to reflect the wishes of the people of this region within the plan while at the same time considering the advice, interests and counsel of governments and industry (LSRLUPC, 1987a: 1).

Under the heading of Starting Point, the Commission presents several premises:

> Conservation is the essential premise of this plan.
>
> The communities of the region will continue to grow and this expanded population will require new sources of income to supplement the harvesting of renewable resources (ibid.: 1).

These premises were subsequently used to develop the Plan.

The Plan makes up the bulk of the report and is divided into six thematic areas: Renewable Resources; Non-renewable Resources; Shipping; Economic Development and Tourism; Sovereignty and Defense; and Scientific Research. Each

theme is discussed under four headings: Background; Principles; Strategies; and Implementation Processes. To provide an indication of how The Plan looks, part of the section on Renewable Resources is presented:

> RENEWABLE RESOURCES
>
> BACKGROUND
>
> Inuit have sustained themselves for thousands of years on the plentiful marine and land animals in this area....The subsistence harvesting lifestyle is the vital thread linking Inuit culture and society from the past to the present and into the future.
>
> PRINCIPLES
>
> The Community is recognized as an important level in decision-making regarding sustainable development and protection of natural resources. Because Inuit are the primary users of Arctic animals and have special rights to harvest and responsibilities to manage these resources, they are an important source of knowledge. Their social, cultural and economic needs and values are supported and reflected throughtout the plan.
>
> STRATEGIES
>
> 2. Establish a resource management system, through meetings between communities and resource managers, that complements and promotes subsistence harvesting. Base this system on a set of performance standards appropriate to the priority areas identified in the Land and Marine Sensitivity Areas Map located in the back of this document.
>
> IMPLEMENTATION PROCESSES
>
> 1. The Commission will meet with the Hunters and Trappers Association (HTA) and resource managers and create committees to ensure that all resource use objectives are integrated for the maximum benefit of users, communities and agencies...(ibid.:2-4).

The same outline is used in addressing the other five topics in The Plan. Lastly, the proposed uses document offered some comments on how the plan would be administered. This section on Administrative Matters is contained several interesting, but questionable, ideas:

> REGIONAL PLAN REVIEW AND AMENDMENT
>
> The NWT Commission will establish a Regional Commission to review and revise the final plan within five years of its publication.

> MONITORING
>
> It will be the responsibility of the NWT Commission to monitor adherance to the final plan. To this end, it is recommended that the NWT Commission seek a contact in each community within the planning region to receive complaints or comments from local residents. The NWT Commission shall appoint one or more of its members to review any complaint. The review will be conducted within one month of receiving the complaint, and, if the complaint proves to be valid, the NWT Commission will attempt to resolve the issue (ibid.: 13-14).

The remainder of this section was devoted to outlining how the the "Proposed Uses..." document should be responded to and how the draft land-use plan would be developed.

As was intended by the Commission, the discussion paper on "Proposed Land Uses in Lancaster Sound" aroused considerable interest and comment from government, industry and other interest groups. Consistent with its earlier participation, industry responded poorly and it was mainly up to Federal government agencies with a development orientation to defend the interests of the non-renewable sector. The only written industry comment on record was from C.A. Crosbie Shipping Ltd. The author of this letter made several remarks, but perhaps one of the more telling was the following criticism of the proposed Sensitivity Map:

> According to this map, access to communities and mine sites are controlled by Priority 1 - Status. This is an all encompassing restriction and is unacceptable from shipping point of view. Site and time specific marine sensitivity areas supported by reliable data would be far more acceptable and would be far more condusive to achieve mutual agreement on specific concerns (Crosbie, 1987: 1).

The letter made it clear that shipping interests were much more predisposed towards "flexibility", "collaboration", and "accommodation" as opposed to "standards" and "legislation" (ibid.: 2). Regrettably, there was no discussion of what flexibility really means nor who would have to accommodate whom.

Other groups, representing national conservation interests, made a number of observations and offered numerous criticisms regarding the Commission's proposed land uses for the region. The Canadian Nature Federation, perhaps sensing some

ambiguity, recommended that "...land use must be planned carefully" and "whenever there is doubt, the CNF urges the Land Use Planning Commission to err on the side of caution" (Anis'kowicz, 1987: 1). The World Wildlife Fund focused on the fact that the proposal for protected areas was incomplete and that "in responding to this need for clearer ground rules (hopefully in the next draft) the Commission needs to do a better job of balancing its proposed conservation and development strategies with respect to the issue of protected areas" (Hackman, 1987: 4). Finally, the Canadian Arctic Resources Committee, in a pointed and useful critique, highlighted the need to clarify the relationship between the Commission's plan and the TFN land claim and sub-agreements. They further suggested that "in some cases, the progressive management arrangements which have been worked out in TFN sub-agreements (e.g., the sub-agreement on wildlife) might provide a direct model for the land-use plan" (CARC, 1987: 4).

The comments from Federal departments about the "Proposed Land Uses..." ranged from effusively positive to negatively critical. In the first category, the DIAND Associate Deputy Minister for the North, in a letter to the Regional Director General in Yellowknife, exclaimed "...I think it's a great piece of work" and "we're off, finally, to a good start" (Ge'rin, 1987: 1). Some of the ADM's staff made more useful comments such as recommending language/terminology be made more precise and that goals/objectives be enuciated more clearly. Environment Canada was more critical:

> This document is disappointing for several reasons. The discussion of the subject matter is "patchy", the objectives are not consistently addressed, and there does not appear to be any central or unifying approach to the presentation (or the planning process). There is no obvious rationale for various statements. As a result the report raises more questions than it answers (McCormick, 1987: 2).

This last writer and other Environment Canada commentators offered many constructive suggestions for improving the evolving land-use plan.

A number of Federal departments---the Canadian Coast Guard, Energy, Mines and Resources (Canada), Canada Oil and Gas Lands Administration (COGLA), and the Department of Defense (DND)---seemed to be especially concerned about the potential for the Lancaster Sound Regional Land Use Plan impinging on their jurisdictional turf. For example, in rather ominous phrasing, it was made clear that the Department of Defense "...has a mandate to fulfill in the North and...must therefore be concerned with any undue restrictions on air, land, or sea movements which would prevent us from carrying out our operational or training committments" (DND, 1987: 7). Finally, a COGLA spokesman said:

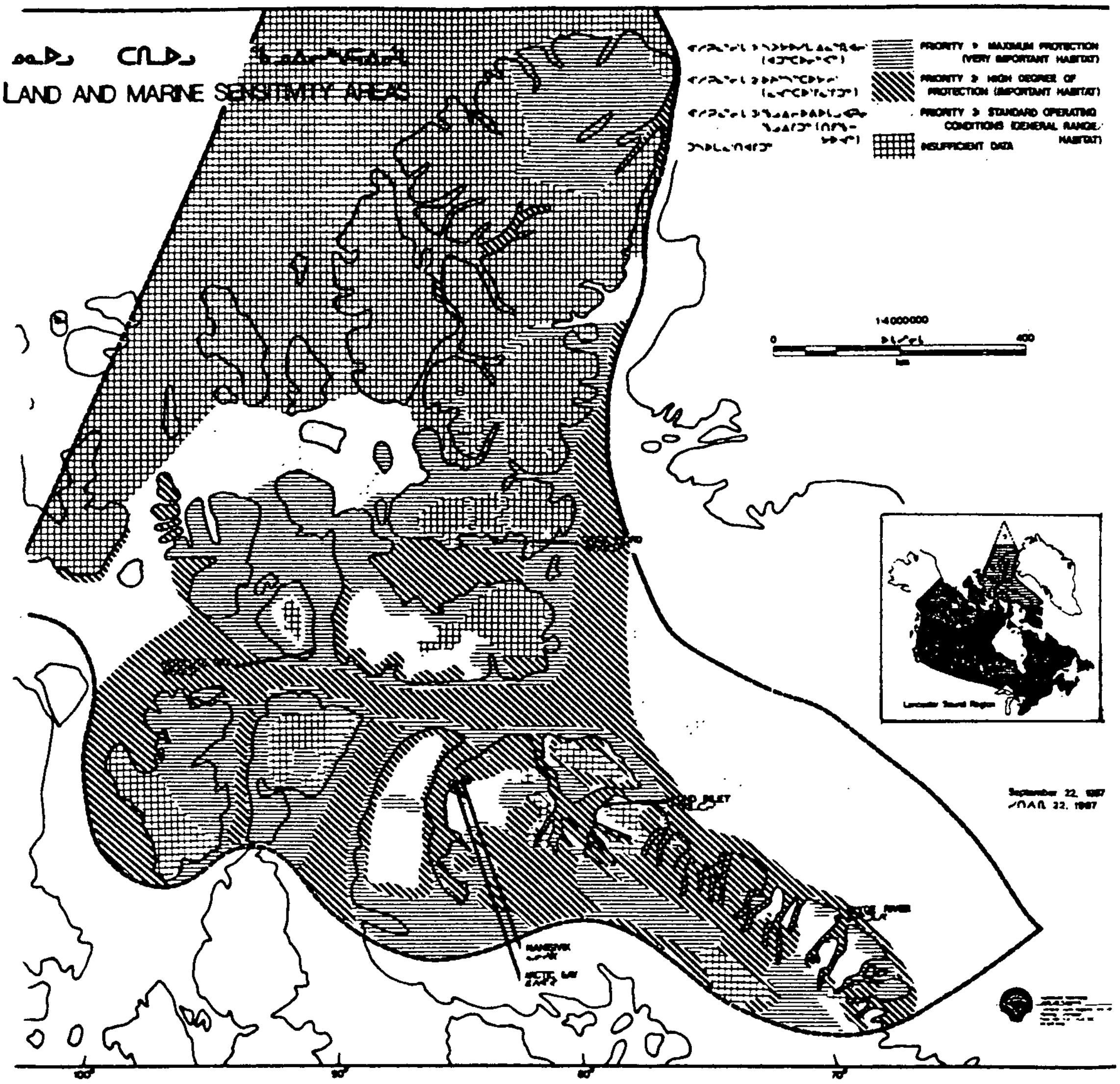
> The suggestion that the work plan be reviewed "through the Land Use Planning Process" is in conflict with our role as regulator for the region. It is reasonable that the Land Use Planning Process should be honored: It should not be a duplicate regulatory process (Englehardt, 1987: 2).

These and other expressions of reservations, about the applicability of the Lancaster Sound Land Use Plan and the authority of the Regional Commission, holds ill-omened portent for the implementation of land-use planning as a viable management process in the region.

Probably the most exhaustive and constructive comments came from the Land Use Planning Division of the GNWT Dept. of Renewable Resources. Submissions were made from a number of Territorial government departments and are too detailed to properly review here, other than note several of its strongest features. First, the GNWT working group noted that the "Sensitivity Map" needed clarification (Figure 6). Specifically:

> ...the criteria for selection of priority areas on the "Sensitivity Map" are unknown. The reader is left wondering for what reason a Priority 1 Zone - (Maximum Protection) has been designated. There also appear to be few links between the text of the document and the map....The use in the "Sensitivity Map" of the priority areas rating system is a restrictive approach to land use that precludes many types of development. (GNWT, LUPD, 1987: 3)

FIGURE 6 SAMPLE SENSITIVITY MAP



Adapted from LSRLUPC (1987a).

Finally, the GNWT planning partners, noting that "what was lacking most is a structure to the discussion paper which covers all of the aspects required of a regional plan" (ibid.: 4), offered a useful outline of what a regional land-use plan should look like.

In the late fall of 1987, The Lancaster Sound Regional Commission and its support staff was faced with digesting all of these written submissions, plus verbal comments garnered from community members, industry representatives, civil servants, and functionaries of various national public interest groups. The next step was to produce a land-use plan incorporating this public input.

5.6 The Lancaster Sound Regional Land Use Plan: First Draft

The first draft of the Lancaster Sound Regional Land Use Plan, printed in English and Inuktitut, was released officially in Yellowknife on February 10, 1988. The regional plan includes a planning document, a Senstitivity Map, and a separate draft Map Atlas. The chairman of the Regional Commission cautioned that these materials "...are incomplete as the Sensitivity Map accompanying this draft is still a very rough outline of what we believe the final product will look like" (LSRLUPC, 1987b). With this caveat in mind, the contents of the first draft will be reviewed.

5.6.1 Contents of Plan

In this version of the Lancaster Sound plan, the table of contents has been greatly expanded and revised from that presented in the earlier "Proposed Land Uses" discussion paper:

1.0 Introduction
2.0 Scope of the Plan
3.0 The Planning Region

4.0 The Policy Environment for Land Use Planning
5.0 Regional Issues and Concerns
6.0 The Land Use Plan
7.0 Land Use Strategies
8.0 Administration of the Plan
9.0 Acknowledgements
10.0 Appendices (ibid.: i - iv)

These additions and changes are presumably made in partial conformance to the GNWT Land Use Planning Division's recommended regional plan outline (1987: 4).

The Introduction outlines the content of the plan text. In it, the Regional Commission states "...that the current land use issues have been well identified", that "...many of these issues can be resolved", and the Commission further "...proposed a number of solutions and recommendations to do that" (ibid.: 2). The purpose, principles, goals, and themes of the Lancaster Sound Regional Land Use Plan are laid out in the section entitled Scope of the Plan. The purpose, principles and goals were derived from the July 1983 Basis of Agreement, the General Terms of Reference for Lancaster Sound received from the NWTLUPC in October of 1986, and from the Detailed Terms of Reference for the LSRLUPC approved April, 1987 (NWTLUPC, 1987b). The themes evolved from the experience of the land-use planning project.

According to statement of scope , the primary purpose of the Lancaster Sound Regional plan is:

> ...to protect and promote the existing and future well-being of the permanent residents and communities of the region, taking into account the interests of all Canadians. Special attention is directed to the protection and promotion of the future well-being of the Inuit and their land interests as they define them (ibid.: 4)

One of the plan's themes explains that "rather than specifying in detail where and when all land use activities will take place during the next 5 years, this plan is adopting a policy process approach, an incentive zoning system and an on-going management system (ibid.: 6). Unfortunately, there is no definition or explanation of these terms and techniques anywhere in the text of the plan, so one has to interpret the meaning from the context of their use.

The Planning Region is described cursorily and features short descriptions of the planning area, communities, geography and climate, wildlife, and the economy. The mixed economy of Lancaster Sound is characterized as follows:

> The regional economy has evolved from a subsistence hunting, fishing and gathering economy to one involved in some fur trading and whaling. A mixed wage/subsistence economy has resulted from the expansion of government programs, oil and gas exploration and mineral development (ibid.: 14).

The immense cash and cultural value of "country foods" and other renewable resources harvested by hunting, fishing and trapping is also emphasized.

The segment entitled The Policy Environment for Land Use Planning makes two important points:

> The plan will be implemented through the jurisdictional framework that is in place at the time of the plan's acceptance by both governments, as well as new structures that may be implemented during the lifetime of this plan.
>
> The Regional Commission is aware of a number of new policy initiatives that are being considered and/or implemented, but it does not foresee serious conflicts between these new initiatives and the land use plan (ibid.: 17).

Interestingly the new policies, which seemingly cause the Commission no problems, include: the Defense White paper, the amended Canada Shipping Act, a new Northern Mineral Policy and Frontier Energy policy, and the development of the Arctic Marine and Northwest Territories conservation strategies. Incredibly, there is no mention of the possible effect of the Meech Lake Accord and the Free Trade Agreement---with their many environmental and non-renewable resource use implications (Swenarchuk, 1988)---on land-use planning in Lancaster Sound and the rest of the North.

The Regional Issues and Concerns division summarizes and synthesizes the plethora of written and verbal submissions made to the Lancaster Sound Regional Commission during the "Community Issues" workshops held during March of 1987 and the regional "Issues and Opportunities" workshop held at Resolute Bay in April

of the same year. This public input highlights five main concerns: protection of wildlife; impacts of shipping on hunting and the environment; employment; tourism; and protected areas. Probably the most important pronouncement is the one about wildlife:

> The Regional Commission believes that the primary use of the Lancaster Sound Planning Region is domestic harvesting (hunting, fishing, trapping) to serve the nutritional, economical (sic) and cultural needs of the permanent residents. Land use guidelines and protected areas will be proposed by the Regional Commission in consultation with all the interests. The purpose is to ensure the preservation of all species within the region and to protect the harvesting activities of the region's residents (LSRLUPC, 1987: 21).

This seems to be a very strong statement in support of conservation and sustainable development. The test will be, of course, in implementing and enforcing the guidelines necessary to realize this objective.

The part called The Land Use Plan simply consists of a number of statements of principles such as:

> 1. Conservation of all resources, both physical and cultural, is the central theme of this land use plan because it is essential to the future of the region....
>
> 3. All land use activities in the region will be controlled by a series of performance guidelines developed in conjunction with the preparation of the Sensitivity Map for the region...
>
> 7. The creation of part-time and full-time jobs within the region is a priority of all concerned.
>
> 10. As with tourism, the pace of development as largely determined by the community, will apply to all land use activities (ibid.: 27-29).

The problem with this section is that it is not, as the title suggests, a land-use plan. A genuine land-use plan should be "...the spatial or geographic expression of regional social and economic objectives" (Rees, 1987: 13). Moreover, the principles collected under this heading seem to range from the sublimely visionary (e.g., #1) to the ridiculously extraneous (e.g., #7).

In what may prove to be the most important contribution of this planning product, Land Use Strategies, "...the Regional Commission is recommending

strategies for achieving the goals of this Land Use Plan" (ibid.: 31). In advancing these land use strategies, "...the Regional Commission has taken careful note of the concerns and wishes of the communities, governments, industries and interest groups and has tried to balance conflicting interests" (ibid.). This component of the plan includes 11 subsections:

7.1 Introduction
7.2 Conservation - Renewable Resources
7.3 Conservation - Protected Areas
7.4 Oil and Gas and Mineral Exploration and Development
7.5 Air and Overland Transportation
7.6 Shipping
7.7 Economic Development and Tourism
7.8 Community Development
7.9 Sovereignty and Defense
7.10 Scientific Research
7.11 Communications

There are usually two headings under each subsection: the background to the area of concern and the recommended strategies for advancing that aspect of the plan. It is instructive to compare the content of this section of the Lancaster Sound plan with the outline proposed by the Land Use Planning Division of the GNWT. The GNWT outline provides for more logical categories of land use, clarifies the difference between principles and objectives, and envisions more accurately described subcategories ---which include objectives (instead of background), policies (in lieu of strategies), and specific performance guidelines for each land use.

The last division of consequence in the planning document is the Administration of the Plan. It includes five subsections: schedule of next steps; implementation; amendments; review; and monitoring. The schedule of next steps simply outlines the expected dates of completion for the remaining planning tasks. The implementation subsection repeats the commitment to adopt the use of the sensitivity map and performance guidelines for vetting applications for land use permits (cf. subsection 7.2.2 - 1.) . However, proposed guidelines and recommended regulatory changes, are not included in the first draft of the Lancaster Sound

Regional Land Use Plan. To effect amendments, the Regional Commission advises that "once the final plan is published, requests for amendments to the plan will be made to the Ministers, and if they determine the request to be valid, they will request the Northwest Territories Land Use Planning Commission to review the proposed amendments" (ibid.: 57). As for the review and monitoring segments, the procedures proposed here are virtually identical to those put forward in the discussion paper on "Proposed Land Uses...".

5.6.2 Comments on the Plan

Following release of the draft Lancaster Sound Land Use Plan, comments were invited from all interested parties. A compendium of written observations and recommendations from a variety of commentators was published in April,1988 as "Comments on Lancaster Sound Regional Land Use Draft Plan" (LSRLUPC, 1988a). A few points about this lengthy document are pertinent here.

Many of the Federal agencies were involved in a meeting held on March 17, 1988 in Ottawa to discuss the draft land-use plan and the results are included in the "Comments..." report. The Federal respondents to the plan identified half a dozen major concerns: the sensitivity map and performance guidelines, the Regional Commission's intent, the scope of the plan, principles and strategies, administrative matters, and the atlas.

The sensitivity map "...was considered to be too complex" and "...much concern was expressed over the lack of explanations of the purpose of the zones themselves, the distinctions between them and the criteria used to develop them" (Bangay, 1988: 1-2). A more damning comment was made about the the Regional Commission's intent:

> Concern was expressed that the plan attempts to be "all things to all people" and, as a result, lacks a central focus. Some [reviewers] indicated that it appeared to be attempting to merely extrapolate present uses into the future without providing a "vision" or clearly defined idea of what it seeks to achieve (ibid.: 2).

Many civil servants suggested that the inclusion of such topics as frequency of air service or shipping related compensation, under the heading of scope of the plan, "...requires that serious thought needs to be given to the types of issues which can be logically and properly addressed through the land use planning process" (ibid.: 3).

Concerning what the Regional Commission calls administrative matters, the reviewers noted that "...there is considerable confusion regarding the difference between 'implementation' and 'monitoring' and the role of the NWT Land Use Planning Commission" (ibid.: 4). Lastly, the atlas for the planning region was found deficient in that "...a lot of available information had not been represented, that the manner in which some was depicted was quite confusing, and that in many instances the level of detail was not sufficient for planning purposes" (ibid.: 5).

Some of the written submissions from Federal employees were interesting in the way they reflect bureaucratic territories and jurisdictional protectionism. For example, the Head of Water Planning and Management in DIAND believed that the absence of specific consideration of inland water resources management in the Lancaster Sound Regional Plan was a serious shortcoming (Jasper, 1988: 1). A Coast Guard manager felt that there was too much stress placed on the local resident's priorities in the plan (Marr, 1988: 1). These comments and other similar ones are suggestive of the difficulties facing implementation of a land-use plan for sustainable development.

The Department of Fisheries and Oceans alluded to a glaring contradiction in the section of the plan dealing with land use strategies:

> Points 1 and 2 [Section 7.4.2]: The Plan advocates conflicting strategies related to oil and gas development. The Plan "expects" and "encourages" oil development to take place in Lancaster Sound, but also prohibits exploration and production with their associated

> facilities, ports and shorebases in areas designated as "critical" and "protected" (Sutherland, 1988: 4)

This comment points out one of the Plan's greatest weaknesses: namely, it does not resolve the problem of the fundamental conflict between the exploitation of non-renewable resources and the protection of the environment.

A wide range of Territorial government departments submitted comments on the draft plan to the GNWT Land Use Planning Division for summation and forwarding to the Regional Commission. Although it was noted that "the first draft of the plan is a significant improvement over the 'Proposed Land Uses in the Lancaster Sound..' document", it was felt that "the description of the present situation needs to be complemented with a prescription for the future" (Robertson, 1988: 1).

The Director of the Wildlife Management Division of Renewable Resources was less circumspect and made a remark reminiscent of ones made by his Federal colleaques when he stated "this draft fails to recommend a clear, simple and accountable decision making process and guideline for land use allocation" (Lloyd, 1988: 1). This sentiment was echoed by a policy advisor in the Priorities and Planning Secretariat who wrote, "the lack of well-defined objectives for each component of Land Use Strategies severely limits the usefulness of the land use plan in providing directions re resource development and land administration issues that will arise in the future" (Davidson, 1988: 2). Joining in this criticism, the secretary of the Energy, Mines and Resources Secretariat protested that "the community based approach taken in the Lancaster Sound Plan seems to have resulted in a renewable/conservation/protection approach" and argued that hydrocarbon and mineral resources must be given more consideration before the plan is finalized (Hart, 1988: 1).

GNWT civil servants living and working in the Lancaster Sound region noted:

> • The current population growth rate is extremely high (the projections in the document have been questioned by one regional reviewer); one could argue

that this growth is not even adequately dealt with now - in five or ten years, there could be a real crisis here (Myers, et al, 1988: 2).

• Oil development in Lancaster Sound itself does not seem to be in the interests of the environment or the people. The commission has been forced into the position of accepting its inevitability, whereas a strong stance on protection of this area would be supported around the world (ibid.: 4).

Probably the most valuable piece of advice provided in this review is that a Planning Act or some other legal basis for the Lancaster Sound Land Use Plan is required to make it meaningful and viable (ibid.).

The Director of Policy and Planning for Renewable Resources summarized his division's perspective:

> One general impression that we are left with is that the draft plan does not provide real guidance as to how development and growth should occur in the region. The plan emphasizes restrictions and controls on development without addressing the positive aspects of balanced development. The Lancaster Sound planning exercise offers an unprecedented opportunity to help implement the concept of environmentally sound economic development as described in the World Conservation Strategy, the Brundtland Report and, more recently, the Report of the Task Force on Environment and Economy (Livingston, 1988: 1).

The point argued here is that a land use plan should not only elucidate constraints <u>on</u> development, but also illustrate opportunities <u>for</u> development.

As before, there are a paucity of submissions from industry. Furthermore, those that were made are rather thin on detailed and constructive criticisms. For example, the President of The Mining Association of Canada stated that "the mining industry has for some time urged the critical need for review of protectionist policies" and went on to say "...it is difficult to accept that such a high proportion of the region warrants a strong degree of protection" (Miller, 1988: 2). Along the same lines, a Canadian Petroleum Association senior manager declared that "CPA questions the need for the levels of protection which seem to have been arbitrarily assigned and which appear to block every possible transportation route through the planning zone, many potential shorebase locations, and cover many major oil and gas lease areas with the 'critical area' designation" (Virtue, 1988: 3). The submission

from Panarctic Oils Ltd., was the most explicit about industry's social responsibility, or lack thereof: "Commission members should understand that above all, we have responsibilities to our shareholders" (Alexander, 1988: 4). Although probably done unwittingly, there could not be a more revealing statement about the need for land use planning to control the environmental and social costs of market driven development in northern Canada.

5.7 The Lancaster Sound Regional Land Use Plan: Second Draft

In September of 1988, the second draft of the Lancaster Sound Regional Land Use Plan was released. This most recent draft, like the first, includes a planning document and map. However, even a cursory review reveals that fairly extensive changes have been made in the content and structure of both parts. Presumably, these revisions are in response to the comments and criticisms submitted concerning the first draft of the Lancaster Sound Plan. Therefore, this second version will be briefly described and reviewed to see how and where it differs from the first Plan.

The first place a significant change is seen is in the table of contents. This most recent Table of Contents was organized as follows:

PART ONE - SETTING THE STAGE FOR PLANNING

1.1 WHAT IS A REGIONAL LAND USE PLAN?
1.2 WHY A REGIONAL LAND USE PLAN NOW?
1.3 HOW HAS THIS PLAN BEEN DEVELOPED?
1.4 WHAT IS THE LIFE OF THE PLAN?
1.5 HOW CAN THE LAND USE PLAN BE USED?

PART TWO - LANCASTER SOUND - PRESENT NEEDS, FUTURE QUESTIONS

2.1 THE PLANNING REGION
2.2 REGIONAL CONCERNS

PART THREE - A PLAN FOR STABILITY, GROWTH, AND CHANGE

3.1 THE COMMISSION'S VISION OF THE PLANNING REGION - LOOKING TO THE FUTURE

3.2 TURNING THE VISION INTO ACTION
3.3 RENEWABLE RESOURCE USE
3.4 PROTECTED AREAS
3.5 MARINE TRANSPORTATION
3.6 MINERAL EXPLORATION AND PRODUCTION
3.7 OIL AND GAS EXPLORATION AND PRODUCTION
3.8 TOURISM
3.9 OTHER LAND USES

PART FOUR - PUTTING THE PLAN INTO ACTION

4.1 PLAN IMPLEMENTATION
4.2 MONITORING THE LAND USE PLAN
4.3 PLAN AMENDMENT
4.4 PLAN REVIEW

This new "menu" is seemingly designed to be more "user friendly" for readers and address some of the concerns expressed previously (LSRLUPC, 1988a).

Critics of the first draft of the Lancaster Sound plan argued that its intent was not clear. Authors of the second draft address this in "PART I - SETTING THE STAGE FOR PLANNING". There they reiterate that "the primary purpose of the plan is to protect and promote the existing and future well-being of the permanent residents and communities of the planning region, taking into account the interests of all Canadians" (LSRLUPC, 1988a:1). Specifically, it is to:

1. identify issues, opportunities, and constraints for land use;
2. establish a balance between regional land uses;
3. advise on preferred use(s) of land and other resources within the planning region;
4. recommend simple, clear, accountable decision-making processes, as well as clear guidelines for land use allocation and environmental protection;
5. recommend methods of publicizing the existence and objectives of this plan (ibid.).

Although more precise about its purpose, the use of words like "advise" and "recommend" makes the regional plan sound less prescriptive and regulatory than it did in its first incarnation. This makes the second draft less relevant and forceful than the earlier versions of the Lancaster Sound plan.

A related criticism of the first draft was that it was without vision. The Lancaster Sound Regional Land Use Commission remedied this deficiency in the second version of their plan by clearly stating "THE COMMISSION'S VISION OF THE

PLANNING REGION" and proposing how they are "TURNING THE VISION INTO ACTION". To provide guidance for users of the land, "...the Commission first envisioned what it would like the region to be in five years and then prepared a plan that would attain this vision" (LSRLUPC, 1988a: 22). The second Plan then states that this vision can be achieved if three basic principles for land use are adhered to: conserve, communicate and develop.

The LSRLUPC argues that "conservation, or the 'wise use' of all resources, is the central principle of this land use plan because it is essential to the future of the region" (ibid.: 23). Further, the Commission seems to expect that all land users will adhere to "good conservation practices" and that development of a territorial conservation strategy will foster the conservation of resources in the Lancaster Sound region (ibid.: 24). In a similar vein, "...the Commission believes that the best way to ensure balanced development and to resolve conflicts between land users is to have good communication between all parties" (ibid.). Communication and information sharing are obviously important in resolving land use conflicts, but so are legislated regulations and citizen participation mechanisms which guarantee the public interest is represented. Finally, the authors of the second draft, presumably under pressure from the oil and gas companies, follow the questionable path of the first draft by recommending "...that development such as oil, gas, and mining exploration and production proceed as a means of bringing economic benefits to the region and of supplementing the renewable resource lifestyle, and of meeting national needs" (ibid.: 25-26). Unfortunately, the authors simply cite the definition of sustainable development proposed by the National Task Force on the Environment and the Economy (see criticism of this definition in Section 2.1.4 above) instead of explaining how they will accomplish the exceedingly difficult task of reconciling the conservation of renewable resources with the exploitation ("development") of non-renewable resources. The perpetuation of this fundamental

weakness clearly shows that the second draft of the Lancaster Sound Regional Land Use Plan has improved more in style than in substance.

Another major criticism of the first draft was that the Sensitivity Map was unclear, complicated and too restrictive as a tool for land-use planning. In the second draft, the LSRLUPC avoided this issue by simply eliminating the Sensitivity Map and replacing it with a map of proposed "Community Managed Areas". These large areas are habitat and harvesting zones, identified on the basis of local and scientific knowledge, of vital importance to the communities of the region. The remaining approximate two thirds of the region appears to have no zoning classification other than it is not of vital importance to local communities.

Perhaps the most important criticism of the first draft focused on the apparent confusion about how implementation and monitoring ot the Plan would occur. Critics also felt that the first version was vague in spelling out the role of the planning commission(s) in plan implementation and monitoring. In response to these comments, and despite the frequent call for a Planning Act, the LSRLUPC advocates implementation of the regional plan through its integration with existing uncoordinated governance processes:

> At the government level this task will fall to the federal and territorial departments and agencies presently charged with the responsibility for the matter in question. At the community level, the hamlet councils will be required to take on the responsibility for issuing land use permits and reviewing pollution prevention guidelines within the "Community Managed Areas" (LSRLUPC, 1988b: 43).

Implementation of the Plan is to be monitored by the LSRLUPC (or its successor) once a year by doing the following:

> 1. obtain from the communities and government departments/agencies a report on activies in the region and their views as to how these activities adhere to the plan;
> 2. review and analyse the plan in light of these reports to identify problems and successes;
> 3. report to the Ministers on the status of implementation, and recommend any action required to improve implementation (ibid.: 44).

On-going monitoring could theoretically lead to immediate plan amendment or revision during the regular, comprehensive five-year review of the plan. In short, while the land use commission can act to monitor adherence to the regional plan and cajole land users to respect its guidelines, it cannot enforce compliance.

Probably the most significant advance evident in the second draft of the Lancaster Sound Regional Land Use Plan is the recommendation "...that authority for the granting of land use permits on 'Community Managed Areas' be devolved to hamlet councils..." (ibid.: 25). If this proposal is actually accepted by the Ministers in charge, it would be a small step towards decentralizing decision-making and land-use control in part of the Lancaster Sound region. Unfortunately, it also proposes a planning and management system that advocates communication, cooperation and goodwill, but provides no guarantee that any of these will occur.

5.8 The Last Steps

Since the release of the second draft of the Lancaster Sound Regional Land Use Plan, staff of the Northern Land Use Planning Office (NLUPO) and members of the Lancaster Sound Regional Land Use Planning Commission have again solicited comments and criticisms from the public (LSRLUPC, 1988c:1-2). Staff from the NLUPO first visited all the communities in the Lancaster Sound region to discuss the second draft and prepare them for the October tour of the Planning Commission. Second, the Commission held its third "Government/Industry/Interest Groups" hearing on October 12 and 13, 1988 in Iqualuit to accept comments on the second draft of the plan. Finally, following this hearing, "...the Commission, its staff, and representatives of the GNWT, TFN, and BRIA toured the planning region communities October 14 to 25 to receive comments from the residents" (ibid.: 2).

If all goes according to schedule "the English version of the Final Draft Plan will be submitted to the Ministers of Renewable Resources and DIAND for review and apporoval" early in 1989 (ibid.). Following approval by the Ministers, the Final Land Use Plan and Poster Plan will be produced. The Lancaster Sound Regional Land Use planning exercise commenced in September, 1986 and, although implementation, monitoring, review and amendments will be ongoing, formal completion is projected for spring of 1989. Although the Final Plan will be a benchmark event in the quarter century long endeavor by northerners and other concerned Canadians to achieve equitable and environmentally sound development, it will probably not represent the end of the struggle for a sustainable northern society. In the next chapters, we will see why and what alternative planning processes might make the dream of an uncommon future for Canada's North a reality.

VI EVALUATION OF THE LANCASTER SOUND REGIONAL LAND USE PLAN

A formal evaluation of the Lancaster Sound land-use plan will determine to what extent it may contribute to the attainment of sustainable development in Canada's North. The basis for this evaluation is the set of sustainable development "performance criteria" elaborated Chapters II and III. These criteria consist of normative statements about sustainable development in a northern context. Drawing on the descriptions and observations from Chapter V, this chapter examines to what extent and how the Lancaster Sound case meets these "performance criteria". Since the Lancaster Sound plan has gone through several "drafts", comparisons will be made between them to judge their respective contribution to planning for northern sustainable development.

6.1 Sustainable Development Objectives

6.1.1 **Criterion 1**: There Should Be Full Integration of Conservation and Development

The Lancaster Sound land use plan makes a commitment to integrate conservation and development by insisting that "...proper conservation practices will be used throughout the region..."(NWTLUPC, 1988: 13), by "...promoting the sustainable utilization of renewable resources" (LSRLUPC, 1987b: 4). It also insists "...that environmental and economic planning are inseparable and cannot be treated independently" (LSRLUPC, 1988a: 25).

Although there is not explicit reference to a value system that fosters such integration, there is an implicit suggestion that the aboriginal lifestyle, which is supposed to be protected by the plan, embodies such a philosophy. The intent of the

plan is purportedly to champion an indigenous conservation ethic that treats natural resources as both commodities and companions. While it subscribes to a utilitarian type of conservation in all human activities, the plan does seem to accept the need for preservation through the use of protected areas. Unhappily, only a few important areas are fully safeguarded, although a number of others have been proposed for protection (Figure 7).

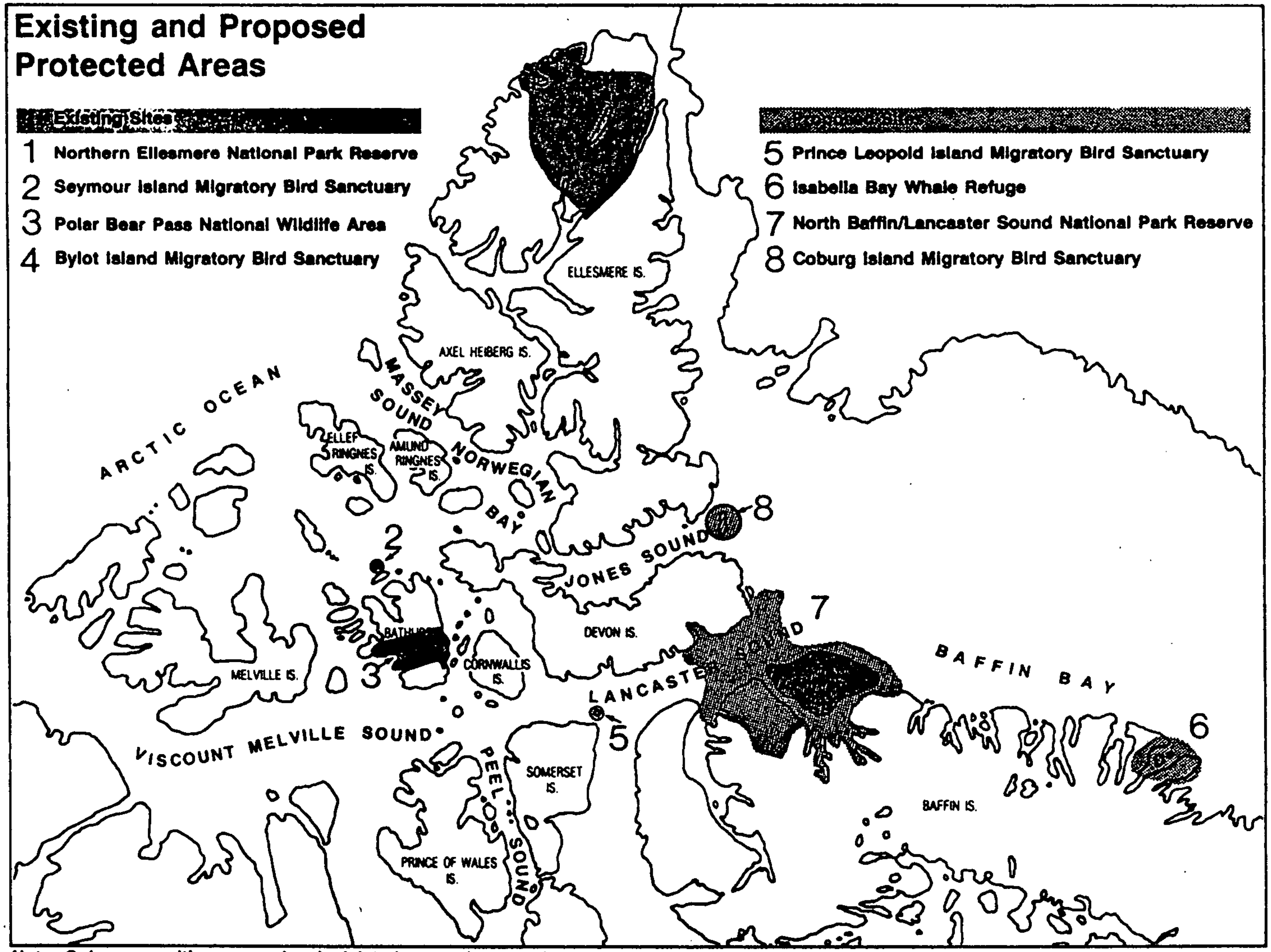
Maintenance and enhancement of the existing "bush" or mixed economy can go far in sustaining development in northern Canada. The Lancaster Sound plan has recognized the need for "...development of a diversified economy, which accommodates and promotes both subsistence and wage economies, renewable and non-renewable resources and the service sector [e.g., tourism]..." (LSRLUPC, 1987a: 9). Expansion of the mixed economy, especially the renewable resource component, is recognized as desirable (especially in light of the projected population growth) as long as it is sustainable. Still, some observers caution that extremely rapid human population growth in the Lancaster Sound region menaces the viability of renewable resource development. As note in Chapter II, toxic chemical contamination poses an even more insidious threat to the bush economy and unfortunately the Lancaster Sound Land Use Plan does not address this critical issue at all. Nevertheless, renewable resources are seen as "...the vital thread linking Inuit culture and society from the past through the present, and into the future" (LSRLUPC, 1988a: 26).

6.1.2 **Criterion 2:** Ecological Integrity Must Be Maintained

The Lancaster Sound land use plan was originally intended "...to ensure the preservation of all species within the region..." (LSRLUPC, 1987b: 21) through the mechanisms of land use guidelines and protected areas. However, since the use of guidelines has been abandoned in the second draft of the plan, we have no way of

FIGURE 7 EXISTING AND PROPOSED PROTECTED AREAS

FIGURE 10: EXISTING AND PROPOSED PROTECTED AREAS



Note: Only areas with proposed or legislated protection are shown

Adapted from LSRLUPC (1988b:29).

knowing at this point how effective these good intentions might have been in enforcing sustainable development.

There is considerable emphasis on the need for sustainable utilization of renewable resources in the Lancaster Sound plan, as exemplified in the statement: "development of viable industries dependent on renewable resources [e.g., an Arctic ocean fishery] is supported as long as the harvest is within sustainable limits" (ibid.: 45). However, this is a narrow reductionist and utilitarian concept of ecological integrity. Moreover, the other World Conservation Strategy objectives of maintaining ecological processes and biological diversity are not specifically mentioned in the plan.

There seems to be no recognition of the low productivity and fragility of the northern ecosystems in the plan. Without explicit consideration of carrying capacity limits, accomplishment of sustainable development is unlikely. The only reference to ecological limitations notes that "a thorough understanding of the dynamics of the natural environment is required before the full potential of the renewable resource sector can be realized" (ibid.).

It is possible that the Regional Commission, by initially emphasizing the importance of conservation of renewable resources for domestic and limited commercial harvesting, believed that ecological concerns should guide all land use decision-making, for the sensitivity map depicted "...the importance of an area based on its ecological importance..." (ibid.: 33), and the originally proposed guidelines prohibited all activities in certain locations and seasons in order to protect wildlife habitats and populations. The second draft's dispensation of the sensitivity mapping and regulatory guidelines assures that the original laudable intentions will not be adhered to in future land use. The issuance of land-use permits by hamlet councils for development on "Community Managed Areas" is the only possibility of accomplishing ecological objectives.

6.1.3 **Criterion 3:** There Should Be Fulfillment of Basic Human Needs

To date, in the Lancaster Sound region, the planning process has supposedly given primacy to conserving and husbanding the vulnerable northern renewable resources in order to satisfy short and long term basic human needs. However, in the first draft, the commission said that "oil and gas and mineral exploration and production in the region are encouraged except in areas designated as critical and/or protected in this plan" (LSRLUPC, 1987b: 37). The second draft makes a much weaker statement when it encourages "...oil and gas exploration and production to proceed in a manner whereby risks are minimized and benefits to the communities are maximized" (LSRLUPC, 1988a: 38). The first plan went on to suggest that "...the small scale crude oil production at Bent Horn is an ideal opportunity for residents in the region..." (LSRLUPC, 1987b: 37) because it, and similar sized projects, allows greater economic participation by northerners. It appears that the second draft of the land use plan was modified to allow drilling to occur in the ecologically unique marine waters of Lancaster Sound itself. There are many people who believe that the Sound proper should be permanently closed to non-renewable resource exploitation and included in the North Baffin National Park or some similarly protected sanctuary (Myers, et al, 1988).

The first draft plan unequivocally said that "the Regional Commission believes that the primary use of the Lancaster Sound Planning Region is domestic harvesting (hunting, fishing, trapping) to serve the nutritional, economical and cultural needs of the permanent residents" (LSRLUPC, 1987b: 21). In the second draft this statement, accompanied by others on appropriate economic development, seems to also support the sustainable development objective of fostering economic growth that satisfies basic needs in energy, food, water, shelter and employment for regional residents. Yet, to repeat, many of the planning and management instruments which

might ensure this kind of economic development have been removed from the latest version of the plan.

The important distinction between qualitative and quantitative growth is not directly confronted in the Lancaster Sound plan, but there is some indication, such as the above reference to "cultural needs", that it is, or at least was, understood. For example, in the first draft it was recommended that strengthening of ties between communities should be encouraged by a strategy to enhance "...modern communication links such as facsimile transmission (fax) machines and/or electronic mail..." (ibid.: 53). More significantly, the first plan stated, as one of its community development strategies, that "outpost camps are considered a natural extension of the communities" and "the protection of the environment surrounding the outpost camps will be ensured" (ibid.: 47). Deplorably the second draft does not support the reestablishment of bush camps (with the likely rebuilding of the extended household economy) nor the building of community electronic networks which would be a positive step towards communicating about sustainable development in the Lancaster Sound region

6.1.4 **Criterion 4:** Equity and Social Justice Must Be Assured

The idea of this objective is to avoid the "tragedy of the commons" by regulating resource use below ecological limits. Because there is no specific reference to ecological limits, this objective is only weakly recognized in the commitment of the Regional Commission to allow "...commercial harvesting of the renewable resources..." when and "...where stocks permit..." (LSRLUP, 1987b.: 33). The problem is that we have been unable to properly identify ecological limits or accurately determine the long-term sustained yield of biological stocks. The question is: what existing or new guidelines, regulations, and institutional structures would be

required to accomplish this objective? The texts of both draft plans are silent on this matter.

Some versions of the sustainable development vision specify that there must be both intra- and intergenerational equity. The only specific mention of these concepts is in the definition of sustainable development found in the Glossary of the second draft plan. In fact, one of the more prevalent earlier criticisms of the plan was that it lacked a vision for the future and relied too much on trying to preserve the present lifestyle of the indigenous residents. Although the plan's emphasis on conservation and sustainable development is potentially the best insurance of both kinds of equity, especially intergenerational equality, there is not adequate discussion of what equitable development might entail. Access to resources is an intragenerational equity issue that the Lancaster Sound plan tries to address. For example, the potential denial of access to renewable resources by commercial activities(e.g., year-around shipping) could be mitigated by such things "as providing ship departures, transit location and times, and arrival information to affected communities through an interactive information network to minimize adverse effects on local activities on the ice..." (ibid.: 41) as in the first draft, and by developing "...a compensation program for hunters using territorial waters" (LSRLUPC, 1988a: 35) according to the second draft of the plan.

The need for equitable distribution of the costs and benefits of development in the North has been an issue for a long time. Unfortunately, the so-called "national" interest, typically in promotion of megadevelopments, has almost always taken precedent over the local and regional needs. Thus, benefits have gone South and costs have stayed in the North. The first draft of the Lancaster Sound regional plan tried to rectify this traditional imbalance in several ways. First, it stated that "non-renewable resource projects within the region must benefit local communities and the region as a whole" (LSRLUPC, 1987b: 27). Second, it proposed that "economic

development based on renewable resources must be structured to deliver maximum benefits to the people of the region while protecting the resource base" (emphasis added) (ibid.: 45). Lastly, in outlining its oil, gas and mineral development strategies, the plan insisted that all production activities would be assessed by governments and affected communities. Accordingly, "the goals of this review are to protect the environment and maximize the benefits to the region and the communities from non-renewable resource projects" (ibid.: 37). The second draft plan tries to reiterate these good intentions, but does so with significantly less clarity and conviction. More importantly, there is a major weakness in both drafts regarding the plan's proposal for environmental and social impact assessment: it does not specify how assessment is to be integrated with land-use planning in a fully comprehensive planning process (see Figure 3) Without such integration, assessment will remain an unfocused, ad hoc, and reactive activity which can make little or no contribution to northern sustainable development.

6.1.5 **Criterion 5:** Cultural Diversity and Self-Determination Should Be Encouraged

Draft 1 of the Lancaster Sound plan guaranteed that residents of the region would have a choice in lifestyle by ensuring that "the primary use of the region is harvesting...to serve the needs of the permanent residents" (ibid.: 27), by encouraging closely regulated non-renewable resource development, and by animating "...communities to improve their quality of life with a diversified economy..." (ibid.: 43). These goals appear to be jeopardized by inadequate land-use guidelines and unenforced regulations for resource management in the second draft.

If sustainable development is to be culturally appropriate, local knowledge and traditional skills should be respected by managers and scientists. This means

that research activities and management institutions should incorporate both traditional and Western knowledge and technology. This imperative was recognized early in the Lancaster Sound planning process when the NLUPO acknowledged "...the paramount importance of 'local knowledge' about land and resources and the need to integrate this with so-called 'scientific' information" (Boutilier, et al, 1986: 4). Later, under strategies for scientific research, the plan recognized that "the integration of local technologies and knowledge with scientific research is required for the benefit of all" (LSRLUPC, 1987b: 51). Finally, while the Lancaster Sound plan does not mention establishment of research institutions by the indigenous Inuit, it does prescribe that "residents of the region will be involved in setting priorities for studies in the planning region" (ibid.). While this provision was strongly opposed by some members of the scientific establishment (Cameron, 1987), both drafts of the Plan adequately represented the wishes of northern residents by promoting local involvement in the design of scientific research.

This last objective of sustainable development requires that decision- making and planning be decentralized and locally controlled. The Lancaster Sound land use plan goes further than any earlier government planning schemes in the North to involve local residents in community-based planning. However, local resident involvement in planning should not be confused with decentralized decision-making and local control of plan implementation. The conformity, or lack thereof, of the Lancaster Sound Regional Land Use plan to this criterion will be elaborated in the following sections.

6.2 Sustainable Development Processes

6.2.1 **Criterion 6:** Goal Seeking Processes

The Lancaster Sound Regional Land Use Plan is ambiguous in its handling of social goals. As one critic mentioned, "...the plan attempts to be 'all things to all people' "(Bangay, 1988: 2). This is expressed in its statement of purpose, to wit: "the primary purpose of the plan is to protect and promote the existing and future well-being of the permanent residents and communities of the region, taking into account the interests of all Canadians" (LSRLUPC, 1988a: 1). According to some commentators this is not a "vision" of the future for Lancaster Sound, but merely an extrapolation of the present uses into the future.

The plan's emphasis on domestic harvesting of renewable resources and the enhancement of the mixed economy, of renewable and non-renewable resource development, reflects the local communities' desire for conservation and sustainable development. Further, there is recognition of such indigenous values as reciprocity, since "...food and other benefits from harvesting activities are shared with many families in the communities, any compensation arising from shipping activities will include all the beneficiaries and not just the particular hunter's families involved" (LSRLUPC, 1987b: 43).

Given the cultural differences, geographic distances, and competing political economies, it is not surprising that the North and South of Canada are "two solitudes". It is extremely difficult for the interested parties to reach consensus on common social goals both because there is disagreement on what the goals should be, and on how they should be articulated. This is especially problematic in land-use decision-making "...because there is difficulty in harmonizing the desire for development that maximizes short-term gains (and thus responds to immediate

concerns about maintaining living standards, creating employment and maximizing the return on investment), with the need for development that is sustainable in the long run" (Munro, 1985: 27). Judging by the complaints, after the release of the first draft, from government agencies and industrial interests about too much emphasis on local input and constraints on development, the Regional Commission apparently failed to mediate consensus on and acceptance of common social goals for the region. The seeming indifference of corporate representatives to the planning exercise probably reflects their confidence that industry will not really have to adhere to local land-use plans because they can simply lobby governments to act on their behalf. Their influence in this regard is suggested by the substantial attenuation of the second draft of the Lancaster Sound land use plan.

Although the Regional Commission could have been stronger and more consistent in articulating its goal of conservation and sustainable development, it may not be possible to forge consensus without greater political will from senior governments. This lack of political will probably results from the common government and industry point of view "...that to define goals in other than the most general terms, is to create unwanted constraints that would close off political options, limit entrepreneurial initiative and the free functioning of the market economy, and stand in the way of economic growth" (ibid.). Yet, as suggested in Chapter II, these are precisely the kind of restraints on the industrial market economy which are required for the accomplishment of sustainable development.

6.2.2 **Criterion 7:** Relational Processes

The notion of a systemic link between biophysical and sociocultural systems was incorporated into the Lancaster Sound planning process through the 1983 Basis of Agreement. One of the general principles to guide land use planning, introduced by

the Native organizations, states that "man is a functional part of a dynamic biophysical environment and land use cannot be planned and managed without reference to the human community" (DIAND and GNWT, 1983: 2). This version of comprehensiveness was introduced into the land use plan with the statement that "conservation of all resources, both physical and cultural, is the central theme of this land use plan because it is essential to the future of the region" (LSRLUPC, 1987b: 27). The same theme is expressed in the second draft when it says "this plan considers the social, economic and cultural aspects of land-use as inseparable from the biophysical considerations" (LSRLUPC, 1988a: 1). Yet, some critics of the Lancaster Sound plan seem continue to believe that too much emphasis has been put on the human component (Sutherland, 1988:1).

Two other indicators of comprehensiveness in planning include: 1) careful circumscription of the spatial and temporal scales to define the decision-making arena; and 2) the delineation of ecocultural entities by local residents to bound the planning region. It is hard to judge how carefully and logically the time and space dimensions were determined in the Lancaster Sound plan. A planning region was defined (Figure 5) and a 5 year duration for the plan seems to be anticipated. Although the general terms of reference for the Regional Commission specify community consultation in establishing the planning region boundaries, there is no evidence as to whether or not this was done. However, the mapping of community resource use areas, with local people, seems to reflect a partial acknowledgement of ecocultural boundaries.

A comprehensive or holistic land-use plan would identify all feasible land-use alternatives, help decide which development options are most pertinent to the stated social goals, allow consideration of the cumulative effects of development, facilitate planning of a relevant mitigative program where one resource use threatens another, and generally assist in the realization of northern sustainable development.

Although one element of a comprehensive planning system is evident in the Lancaster Sound plan (e.g., discussion of pertinent development options), there is not enough elaboration of all feasible land-use alternatives and there is no discussion of the cumulative effects of development. More importantly, environmental and social impact assessment is barely mentioned, and there is no attempt to systematically integrate it with the land-use planning.

While not all of the planning tasks were adequately carried out in the Lancaster Sound plan (e.g., alternatives specification), a systematic approach was utilized. In addition, well defined and publically accepted procedures were established at the outset and adhered to consistently (except for a few delays) to ensure fair representation of all interests (Table IV). While some interests (e.g., shipping) might assert that their concerns are not properly reflected, there can be little argument that they were not given an opportunity to participate. Regrettably, according to some of the regionally-based GNWT civil servents, "in spite of appearances, one of the problems to date, has been lack of public awareness or involvement in land use planning [in the communities]" (Myers, et al, 1988: 1). Thus, public participation at the community level may have been problematic and there is some question as to how representative the community-based planning is of the Lancaster Sound population.

6.2.3 **Criterion 8:** Adaptive Processes

As some critics of the Lancaster Sound plan note, it has tended to be quite modest and limited in its purpose and scope. For example, some commentators believe the zoning approach to land use planning, as exemplified in the sensitivity map of the first draft, is not flexible or adaptive enough. In response, the Planning Commission simply eliminated the sensitivity zoning and mapping in the second

draft. Others critics argue that the plan should accommodate growth in a more dynamic fashion. In short, there appears to be little enphasis on adaptation or evolution in the Lancaster Sound land use plan.

The Lancaster Sound plan attempts to be adaptive in two ways: 1) by formal review; and 2) through amendments. As far as the review procedure goes, "nó more than five years from when the land use plan comes into effect, the federal Minister of DIAND and the territorial Minister of Renewable Resources may request a formal review" (emphasis added) (LSRLUPC, 1988a: 45). However, an adaptive approach would not disband the Regional Commission after production of its plan, but rather would charge it with on-going review and readjustment of the regional plan. Regarding amendments, "as the plan is being implemented, land users, decision makers, or any one else affected by the plan may identify problems and want to see the plan amended" (ibid.: 44). Heeding criticisms of the first draft, this slightly more adaptive approach will have the Planning Commission receive regular public input regarding the need for amendments, conduct periodic public hearings on how the plan should be amended, and then propose such changes to the Ministers for their approval. Despite this improvement from the first draft, there is no discussion of the need to conduct post-development audits of the land planning and environmental/social assessment processes to learn from their successes and failures. Without this feedback, planning cannot be very adaptive and, thus, cannot effectively contribute to sustainable development.

In the North it is imperative that planning processes be instituted that maintain cultural and natural diversity as well as sustaining multiple development options for enhancing adaptability. While the Lancaster Sound plan gives the appearance of promoting cultural and natural diversity in the region, as well as fostering some development options, there is no discussion of how adaptive planning and social learning can contribute to these objectives.

6.2.4 **Criterion 9:** Integrative Processes

The Lancaster Sound land use plan also seems to recognize the importance of collaborative and trans-disciplinary research and management, particularly in discussion of its strategies for scientific research. For example, "the Canadian government will continue to encourage intergovernmental co-operation in conducting research in this polar region and in sharing the management of biological resources and in strengthening cultural ties within the circumpolar region" (LSLUPC, 1987b: 51). Furthermore, and also as noted before, the integration of scientific information and local knowledge is explicitly mandated by the plan.

Regrettably, as noted above, the Lancaster Sound Regional Land Use Plan does not provide for an integrated planning system such as the one outlined in Chapter 3 (section 3.2.3) and modelled in Figure 3. Without this kind of comprehensive planning framework and legal authority for enforcement of the plan, it is difficult to see how, despite good intentions, the Lancaster Sound land-use plan can realistically assure sustainable development of the region.

As a general rule, there should be clearly designated, preferably legislated, guidelines, mandates, and responsibilities for all agencies and jurisdictions involved in land-use planning and control. To date, there is no legislated mandate for this in the Lancaster Sound region. This is probably one of the most disabling features of the northern land-use planning process. Clearly, a Planning Act or some other legal basis for land-use planning needs to be implemented. According to the 1983 Basis of Agreement, implementation of the land-use plan depends on "...joint commitment and [the] approval sought is [through]...collective determination to ensure that policies, guidelines, and programs which fall under the respective jurisdictions of all the various Ministers [Federal and Territorial] will conform with the goals, objectives, and policy guidelines outlined in the plans" (DIAND and GNWT, 1983: 7-8).

Despite the lofty goals stated at the outset of the process, the second draft of the plan eschews all mention of guidelines and regulatory mechanisms other than locally administered land-use permits. As one policy analyst noted, "in effect, implementation of the approved plan is dependent on a great deal of moral suasion" (NLUPO, 1987: 1). Although it is too early to pass final judgement on the potency of the plan, it seems "...overly optimistic to expect that the wide range of federal and territorial government departments with legislated mandates to carry out resource management functions will necessarily follow the letter of the plan" (ibid.: 1-2). Further, without the "political" clout of a legal foundation it is doubtful that there can be real public accountability for land-use decisions in Lancaster Sound or any assurance of adherance to plans for the region.

6.3 Northern Land Use Planning: Where It Stands

As shown earlier, there has been a strong public interest in comprehensive land-use planning and some form of sustainable development (it was called balanced development previously) for northern Canada since 1977 when Berger published his now famous inquiry into northern affairs. Since then the Canadian government has appeared to make numerous attempts to realize land-use planning for sustainable development in the North. From the start, northern land-use and development planning policies have been flawed. Some of the main problems identified in the late 1970s and early 1980s included: 1) centralized, top down planning; 2) non-comprehensive and unintegrated planning and management; 3) planning product- rather than process-oriented; 4) public participation avoided or minimized; 5) plan implementation voluntary rather that legally mandated; and, 6) minimal or no mechanisms for monitoring and amending of plans (Rees, 1978 and 1983).

When the "Basis of Agreement" was signed in 1984, there was much promise by government and great public expectation that northern land-use planning would finally facilitate "balanced" development in the North. Furthermore, it was anticipated that the Lancaster Sound Regional Land Use Plan would serve as a model for planning northern sustainable development. This thesis set out to test these expectations by evaluating the Lancaster Sound planagainst a fairly extensive set of "performance criteria" for accomplishing sustainable development. It should be clear that, despite a few small steps forward, a decade after the Berger Inquiry we are still uncomfortably close to where we stood then and the attainment of a sustainable future for the North is as elusive as ever. The evidence for this conclusion is documented above and summarized in Table V.

After reading through all the documents associated with the Lancaster Sound land use planning process, and then critcally evaluating the contents, one cannot help but conclude that Canada's senior governments and their appointed planning commissions have learned much of the theory and rhetoric of planning for sustainble development but have failed, for whatever reason, to put it into practice. This failure is probably not due to conspiracy and complicity, although there is undoubtedly great reluctance on the part of some elements in business and government to effect genuine transformative sustainable development. Rather, it is likely that social guidance planning done incrementally by the modern nation state is simply incapable of designing a sustainable society in the North or elsewhere. If incremental social guidance planning such as that exemplified by the Lancaster Sound case has failed, what are the alternatives? Although we do not have any very good existing models of structures capable of promoting social reform planning, there is a strong argument for the view that it can only be accomplished by a decentralized, self-managed, regional government (Aberley, 1985 and Friedmann, 1987). The indigenous peoples of northern Canada have made alternative proposals,

TABLE V LAND USE PLANNING THEN AND NOW

SUSTAINABLE DEVELOPMENT CRITERIA	1977 LANCASTER SOUND GREEN PAPER	1988 LANCASTER SOUND REGIONAL PLAN
1. Integration of Conservation and Development	"Balanced Development"	"Sustainable Development"
2. Ecological Integrity	No Limits to Growth	Few Limits to Growth; "Sustained Yield"
3. Basic Needs	None Identified	Recognized But Not Protected
4. Equity and Social Justice	"National Interests" Emphasized	"Local Interests" Discussed But Multinational Corporate Interests Protected
5. Cultural Diversity and Self-Determination	Assumed Rapid Assimilation; Ignores Local Knowledge	Accepts Slow Acculturation; Utilizes Some Local Knowledge
6. Goal Seeking Processes	Very Little Public Participation; National Interests Prevail	Some Local Involvement In Goal Setting; Corporate and Governments Goals Dominate
7. Relational Processes	No Explict Mention; Natural Environment Emphasized	Acknowledgement; Emphasis on Culture
8. Adaptive Processes	No Monitoring or Amendment Mechanisms	Minimal Monitoring and Restricted Amendment
9. Integrative Processes	No Integration; No Legislation	No Planning System; No Legislation

which will be discussed in the next chapter, for how true equitable and sustainable development could be achieved and institutionalized through regionally based self-government.

6.4 The Next Step Towards Sustainable Development

The above observations lead to the contention that the inherently political nature of northern land-use objectives should be accepted and articulated with planning processes which promote sustainable development. Of course, this is not fully acknowledged in the Territorial or Regional Commissions' documentation, because these single-purpose commissions were expressly designed to meet the demand for local involvement in land-use planning without eroding central government authority. The establishment of this kind of institutional structure is a way to strengthen social guidance and avoid social transformation to a decentralized, self-reliant political community that could be more effective at planning and controlling land use. While it may be too soon to definitively judge the single purpose regional commission approach, given its questionable ability to monitor and enforce adherance to the land use plan, it is safe to hypothesize that it is not the best planning institution for acheiving sustainable development in the North.

The institutional structure designed for the recent Lancaster Sound regional land-use planning process can be characterized as a kind of concurrent government. The recognized concurrent "managers" are the Federal and NWT governments which receive advice from the aboriginal "governments-in-waiting". This structure was a compromise from the original Federal government desire to monopolize all land-use decision-making in northern Canada and as such it was a small step in the right direction. By formally including the Territorial government in an authoritative

position, the current northern land-use planning structure has definitely become more sensitive to northern social goals, further cognizant of the relationships between people and the land, more adaptive through promotion of greater immediate (i.e., local) regulatory feedback, and additionally appreciative of the need for integrative planning systems. This institutional restructuring, which still preserves ultimate decision-making authority at the center, has not gone far enough in "devolving" land-use planning and control to ensure sustainable development.

The Native organizations apparently have taken the position that participation in the Lancaster Sound plan will be a social learning process for their people. At the same time, in their view, involvement in the planning process will help to protect their lands and resources while they vigorously pursue their own political agenda. Their position is that conservation and sustainable development can only be fully realized with the entrenchment of the aboriginal right to self-government in the Canadian Constitution and recognition of sovereign indigenous "homeland" governments. The Lancaster Sound Regional Commission notes that, "after the settlement of the [Tungavik Federation of Canada (TFN)] land claim, many aspects of the land use plan will be the responsibility of new agencies such as the Nunavut Planning Commission, the Nunavut Impact Review Board, the Nunavut Water Board, and the Nunavut Wildlife Management Board" (LSRLUPC, 1987b: 19). The TFN proposal is one scheme for going beyond the rhetoric and more fully involving indigenous people in planning and managing development in the North. In the last chapter we will briefly examine this and other "aboriginal alternatives" for the governance and planning of true northern sustainable development.

VII CONCLUSIONS AND PROPOSALS FOR UNCOMMON ACTION

Evaluation of the Lancaster Sound Regional Land Use Plan and planning process reveals that some of the objectives or goals of northern sustainable development have been adopted. These include: 1) the desire to involve aboriginal people in the planning; 2) an emphasis on conservation and its integration with development; 3) an accent on the sustainable harvesting of renewable resources as the primary use of the region; and, 4) the desirability of some local decision-making regarding land-use. Unfortunately, most of the processes necessary for achieving these objectives are currently underdeveloped or non-existent. Probably the three most important deficiencies exhibited by the Lancaster Sound case are: 1) a failure to integrate economic planning, land-use planning, and environmental assessment into one regional planning system; 2) the lack of a legislated mandate to enforce adherence to a land-use plan and regulations; and 3) the continuing centralization of decision-making for land-use planning and control. The persistence of these related problems suggests that the Lancaster Sound Regional Land Use Plan will prevent achievement of sustainable development in the North.

7.1 Planning, Politics and Sustainable Development in the North

According to Jull, there are two critical aspects to conservation and sustainable development in the North:

> The first, of course, is the supply and health of living species and resources upon which northern peoples depend for food and income. The second is the structures and styles by which these are managed, exploited and conserved (emphasis added) (1986: 61).

Thus, in keeping with a central theme introduced early in this thesis, there is a very close link between politics and planning. The kinds of institutional structures and styles, developed through the political process, will determine more than any

planning theory or technique whether or not northern development is sustainable. This is because "planning is a tool: it has little power in and of itself; rather, it relies on the power and authority of those who implement it and sanction its implementation" (Dacks, 1981: 190). The question is, will those with the ultimate power and authority to implement the Lancaster Sound Regional Land Use Plan---the Minister of DIAND and, to a much lesser extent, the GNWT Minister of Renewable Resources---do so in a way that will ensure its effectiveness?

Many observers feel that the authorities and institutions from southern Canada, including so-called northern land-use planning, will not and cannot promote development that is sustainable in northern Canada. They point to:

> The fact that the northern department of government in Ottawa had the north's "national resources" as part of its name, and that these are now "Canada lands," even when under water, tells all. Only northerners have a real stake in protecting the north, and if they do not, its conservation is lost (Jull, 1986: 73).

The argument being made here is not so much that Native northerners are inherently conservationists---although their value systems certainly support a conserver behaviour---but, rather, that their proximity to and dependence on the land and its resources make them sensitive to the need for conservation and sustainable development. Although the Lancaster Sound exercise has allowed indigenous people more involvement in planning than they have enjoyed in the past, they still have no real decision-making power.

The view that northern aboriginal people are best equipped for planning and controlling development for sustainability has found expression in their long-standing effort to regain control over land and resources through the land claims process, attempts to entrench their right to self-government in the Canadian constitution, and in efforts to form homeland regions such as Nunavut in the eastern Arctic (Nunavut Constitutional Forum, 1983). The Inuit of the eastern Arctic and other Native people "...have argued that such an approach would place land-use

decision making in the hands of a single body, comprised of people who have traditionally cared for the land, or who---at the very least---could not produce a worse record than Ottawa has" (Dacks, 1981:191).

One organization which holds this view is the Tungavik Federation of Canada (TFN), created by the Inuit of the eastern Arctic to negotiate a land claims settlement with the Canadian government. While they did enter into the 1983 Basis of Agreement for Northern Land Use Planning in the Northwest Territories, the TFN was not satisfied with it for several reasons:

> First, the Northwest Territories agreement was excessively vague about the effect of a plan and the extent to which it would bind government and third parties. Second, the agreement envisaged the creation of a single land-use planning commission for the entire Northwest Territories....TFN felt that planning should have a much greater degree of decentralization and a regional focus....Third, the process of plan approval at the political level was left somewhat ambiguous....And finally, although the Northwest Territories agreement heralded great changes and a semi-independent status for the land-use planning commission, there was a danger that all the planning could be done within DIAND under the direction of the northern director of planning, whose position was explicitly provided for in the Northwest Territories agreement (Bankes, 1987: 103-104).

Despite these weaknesses, the TFN viewed the Basis of Agreement for northern land use planning as a positive step and has used it as a foundation for negotiating an Agreement-In-Principle for land use planning in the future Nunavut.

7.2 The Aboriginal Alternative for Sustainable Development

As recognized by the recent World Commission on Environment and Development, the struggles by indigenous peoples to protect and preserve their traditional lifestyles are widespread and deserving of special support in planning for sustainable development (WCED, 1987). Nowhere is this more evident than among the circumpolar aboriginal societies where we find:

> - small and distinctive cultures occupying relatively large and "underdeveloped" northern areas;...

> - stable societies based now as traditionally on the harvesting of renewable resources;...
> - legal and political conflicts between the claims to land and resources, and their use and benefit, of northern peoples and the governmental and industrial development interests which would exploit these for southern use;...
> - demands for greater legal rights to lands and resources and for more self-governing powers and stronger representative institutions by northern peoples; and
> - an ultimate willingness to accept political accommodations within existing state structures, with the potential these have to offer, rather than pursue separation (abridged from Jull, 1984:27-28).

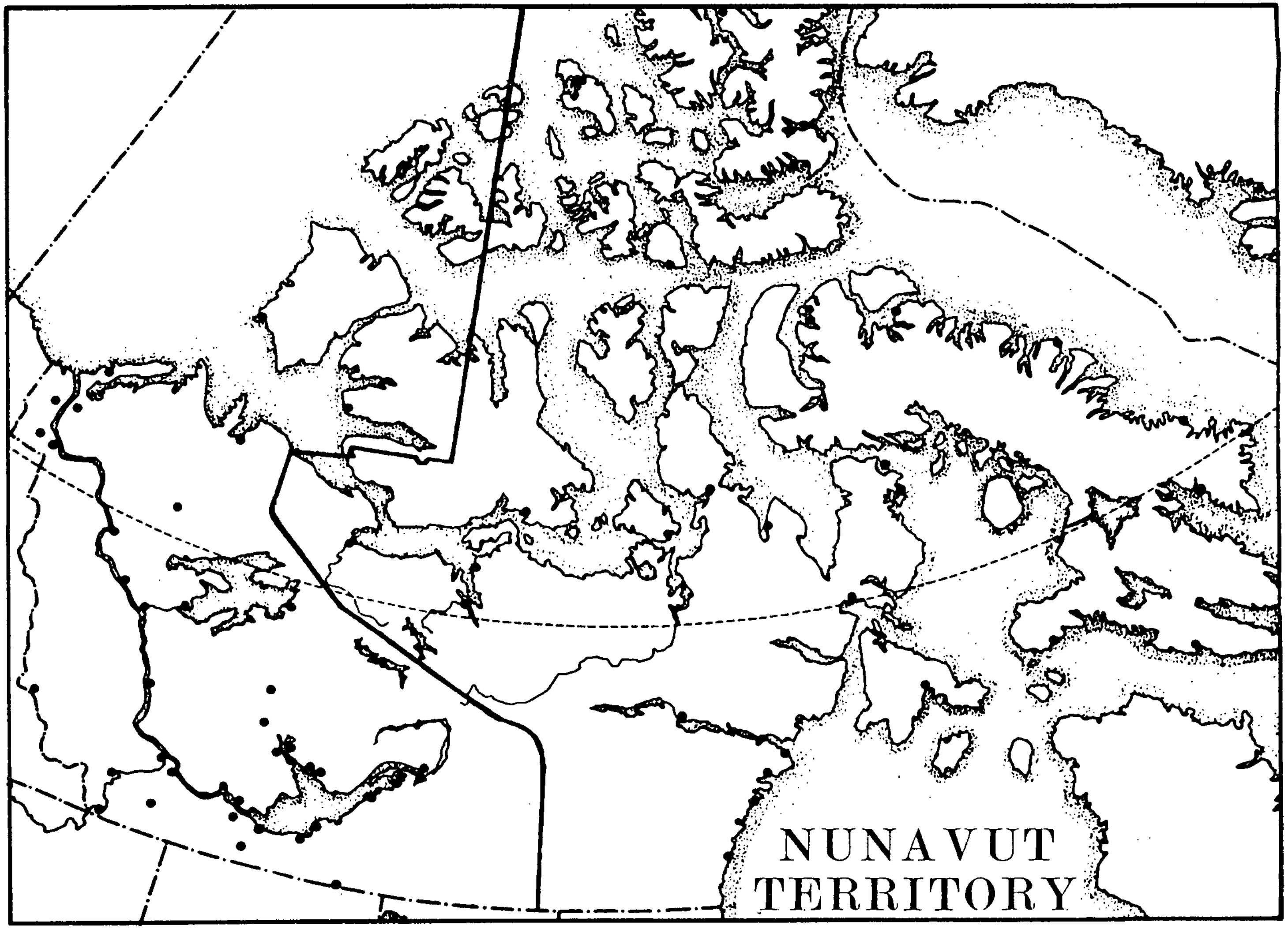
Here, the desire on the part of Canadian Native people for self-determination in their northern homelands is understandable.

The Canadian traditions which emphasize pluralism and federalism mean we should be able to accept and support the vision of north controlled and planned by Native northerners (Asch, 1984). In addition, there are several examples of successful aboriginal "homeland" or regional governments in North America, such as the one evolving in James Bay in Quebec (Graham, et al, 1984; Jacobs and Kemp, 1987; Salisbury, 1986) and the North Slope of Alaska (Anjum, 1984; Berger, 1985; McBeath and Morehouse, 1980), where there have been promising starts made on planning for sustainable development.

The Lancaster Sound area is part of Nunavut (meaning "Our Land"), a proposed Inuit "homeland" made-up of the northern and eastern parts of the present Northwest Territories (Figure 8). The TFN, which succeeded the Inuit Tapirisat of Canada (ITC), was formed by the eastern Arctic Inuit to pursue an aboriginal rights claim for Nunavut with the government of Canada. This claim is "...based on an unextinquished aboriginal title to lands and waters that the Inuit of the eastern Arctic traditionally have used and occupied" (Bankes, 1987: 98). For the TFN, these negotiations have several objectives:

> First, the Inuit anticipate that an agreement will confirm and recognize their resource harvesting rights and their title to northern lands....
> Second, the Inuit expect that the settlement will provide a basis for economic self-sufficiency....

FIGURE 8 MAP OF NUNAVUT



Adapted from Nunavut Constitution Forum(NCF) (1983).

> Third, the proposed settlement is designed to give Inuit a strong participatory role in the regulation and management of lands, resources, and the offshore area in the eastern Arctic, a role that is to be achieved by Inuit participation in land-use planning, environmental assessment and project approval, and the disposition of rights to land and resources (ibid.).

Procurement of these rights would allow the Inuit to control and benefit from economic developments as well as enact and enforce environmental protection in their region, which could bring us much closer to sustainable development in the eastern Arctic.

In 1982, the ITC prepared a document entitled "The Land and Resource Elements of an Agreement-In-Principle" which has formed the basis for subsequent negotiations between the federal government and the TFN. In this proposal, the eastern Arctic would form an new territory or province of Nunavut and there would be three types of land-holding:

> (a) Inuit Lands with title vested permanently in a Designated Inuit organization;
> (b) Municipal Lands with title vested permanently in municipalities; and
> (c) Nunavut Lands Authority Lands (NLA Lands) with title vested permanently in the Crown and administered through the Nunavut Lands Authority (NLA) (ITC, 1982: 22).

The NLA would be a tripartite body, made-up of Inuit and representatives of the federal and territorial governments, which would determine the disposition of NLA lands.

Besides establishment of the NLA, the 1982 proposal would envisage a number of resource management structures. First, there would be two kinds of official plans to manage development in Nunavut: 1) municipal plans to govern the development of sub-regional lands; and, 2) a Nunavut official plan to govern development on a Nunavut-wide and regional basis (ibid.: 133). The Nunavut Planning Office (NPO), an agency of the Nunavut government, would prepare draft regional or sub-regional plans through data collection and consultation with all interested parties. The draft plans would be reviewed by the Nunavut Planning Review Board (NPRB), an

independent institution to be comprised of Inuit and federal/territorial representatives, which would hold public hearings and then approve the plan or return it to the NPO for revision. When approved, the Nunavut official plan would be used to assess and evaluate all development proposals which could not proceed without a Planning Conformity Certificate (ibid.: 160).

Another important feature of the ITC plan was the proposal to establish an impact review process and an independent Nunavut Water Board NWB) designed to control allocation and use of water in the new territory. The Nunavut Impact Review Board (NIRB) would be an independent agency designed "...to assess the environmental, social, economic and other consequences and impacts of Major Development Proposals within Nunavut in order to determine their acceptability and desirability..." (ITC, 1982: 162). Moreover, impact assessment would be an integral part of of the land planning system because only after the proponents of Major Developments had obtained Planning Conformity Certificates would the NIRB review them to "...determine whether such proposals should proceed, and if so, under what terms and conditions" (ibid.: 171). Finally, Inuit Impact and Benefit Agreements would be negotiated with every proponent in order to ensure that Inuit obtained economic benefits from Major Development Proposals permitted by the NIRB (ibid.: 181).

This "aboriginal alternative" for the establishment of Nunavut and the management of its land and resources contained a number of elements absent in the current northern land-use planning process being pursued in Lancaster Sound and elsewhere in the Northwest Territories. Table VI compares and contrasts the Lancaster Sound Plan with the proposed scheme for Nunavut on the basis of evaluative criteria described previously in this thesis. Although there are some similarities (e.g., Criteria 1 and 8), there are also many important differences which can be briefly summarized. First, the Nunavut model would enhance Inuit

TABLE VI LANCASTER SOUND AND NUNAVUT PLANNING

SUSTAINABLE DEVELOPMENT CRITERIA	LANCASTER SOUND PLAN	NUNAVUT PROPOSAL
1. Integration of Conservation and Development	"Sustainable Devlopment" (Incremental)	"Sustainable Development" (Transformative)
2. Ecological Integrity	Few Limits to Growth; "Sustained Yield"	Limits to Growth in Non-Renewable Resources
3. Basic Needs	Inuit Needs Recognized But Not Protected	Needs of Inuit Recognized and To Be Protected
4. Equity and Social Justice	Local Interests Discussed; Corporate Interest Protected	Local Interests Protected; National Interest Allowed
5. Cultural Diversity and Self-Determination	Accepts Slow Acculturation; Utilizes Some Local Knowledge	Fosters Cultural Identity; Emphasizes Local Information
6. Goal Seeking Processes	Some Local Input; Corporate and Government Goals Dominate	Local Involvement at Municipal Level; Inuit Goals Predominant
7. Relational Processes	Acknowledgement; Emphasis on Culture	Reified; Balance of Culture and Nature
8. Adaptive Processes	Minimal Monitoring and Amendment Mechanisms	Some Monitoring and Amendment
9. Integrative Processes	No Planning System; No Legislation	Integrated Planning System; Planning Legally Mandated

involvement in and control over economic development in the Eastern Arctic. Second, proposals for water and project development review would conform with official land use plans as part of a comprehensive regional planning system. Third, public participation would take place in both the original planning exercise and a later review by an independent agency. Fourth, the proposal to seek approval of the regional plans from the minister and legislative assembly of Nunavut would mean considerable devolution of power from the Federal to a "homeland" government. Finally, the entire planning process would be mandated by legislation establishing Nunavut.

After much hard bargaining with federal government negotiators, who have been reluctant to discuss the devolution of powers to a regional government such as Nunavut, the "Land Use Planning Provisions of an Agreement-in-Principle" were signed in July of 1984 at Frobisher Bay (TFN Agreement, 1984). Although somewhat less empowering than the 1982 ITC proposal, the TFN Agreement still contains most of the essential elements which would contribute to planning for sustainable development in northern Canada.

The suspicion of excessive compromise arises from observations made about the political evolution of the Inuvialuit since they made a land claims settlement in 1984 (DIAND, 1985). The agreement was not a particularly progressive settlement, but awarded the Inuvialuit fee simple ownership of 5000 mi^2 and an additional 30,000 mi^2 without subsurface resource rights. The Inuvialuit were also given co-management representation on natural resource-related advisory and decision-making boards. Finally, the Inuvialuit Regional Corporation was established to take advantage of business opportunities associated with oil and gas exploitation. The substantial degree to which this involvement with the "forces" of the market economy has caused the Inuvialuit to forego a goal of balanced and sustainable development is demonstrated by their recent active support of the revived

petrochemical industry application to the NEB for the right to export natural gas from the Mackenzie Delta (Bayless, 1989: 20). The Inuvialuit may have lost sight, hopefully temporarily, of their original goal of redefining northern development to include enhancement and preservation of the bush economy. Perhaps this inconsistency stems from the fact that the Inuvialuit moved only hesitatingly towards self-government and an integrated system for land planning and management.

7.3 A Sustainable Future for the North: Getting There from Here

Although the goals and principles are essentially the same in the Northwest Territories Agreement (1983)---which has guided the Lancaster Sound plan---and the TFN Agreement (1984), there are substantial differences in the planning processes. A plan developed under the TFN Agreement would differ from the Lancaster Sound Regional Land Use Plan in the following ways:

- It would link impact assessment and land/water-use planning into a regional planning system, so that non-renewable resource development projects serve pre-defined economic goals.

- The planning process would be more detailed, systematic and legally mandated, leaving less to individual interpretation, goodwill and moral suasion.

- It would provide for a Nunavut based planning policy committee, rather than the existing GNWT/Federal one, which should provide for more Inuit input into the planning process.

- Territorial and federal ministers could not amend a plan; they could only approve or reject it and send it back to the Nunavut planning commission for revision.

- All development proposals would have to be vetted by the Nunavut planning commission to see that they conformed with the official development and land-use plan before they went to further mandatory impact assessment and review.

- All activities and operations of the federal and territorial (including Nunavut) governments would have to be conducted in conformity with the provisions of the approved official plan.

Thus, if the TFN claim were finally settled and Nunavut established, at least some of the planning processes required to achieve northern sustainable development would be realized in Lancaster Sound and the rest of the eastern Arctic.

The Lancaster Sound Regional Land Use Plan has substantial shortcomings because it is not structurally integrated nor supported by law. Therefore, there is a strong possibility that it will be ineffective in safeguarding the northern environment and traditional lifestyle of the aboriginal peoples it purports to protect. While the TFN proposal may be seen by some as overly legalistic and rigid, the Inuit of Nunavut take the following position:

> ...a plan should not be laboured over and then casually discarded. It is a management and enforcement tool with which development should comply. It is a technique by which the Inuit of the eastern Arctic may reassert some control over their own lives and over development in their own backyards. It is a technique by which community and regional development may be encouraged, and it is a technique by which Inuit may preserve a range of options in both the renewable and non-renewable resource economies (Bankes, 1987: 110).

If planning is to be more than an exercise in co-optation of northern indigenous peoples, as the Lancaster Sound Plan may be, and if we are to ensure that development is to be sustainable in the North, then it is <u>necessary</u> that the TFN or a similar proposal for land planning and management by aboriginal homeland governments <u>be implemented</u> <u>immediately</u>.

One of the most important objectives of this thesis has been to look for a model for how indigenous people could be more fully involved in the establishment of sustainable development. It has often been taken as a given by observers that the entrenchment of aboriginal rights to land and resources through land claims settlements would automatically lead to sound development in the North. Regrettably, the experience of the Inuvialuit in their settlement throws some doubt on this assumption. The TFN proposition, which stresses land and resource planning at a territorial level under the new political jurisdiction of Nunavut, and a

second level of planning and management for regions and sub-regional municipalities, is a more comprehensive and radical proposal. Nevertheless, perhaps the Inuit of the Eastern Arctic need to go further than they have and adopt the "southern approach" to self-determination and self-governance (Asch, 1984: 90-93). This might entail: 1) creation of an exclusive ethnonational territory where the political rights of the Inuit would be specified and guaranteed; 2) the reaffirmation of aboriginally valued consensus rather majoritarian style of decision making; and 3) the reestablishment of the traditional kinship-based and community-oriented system of land and resource management (cf Morrell, 1985). This approach to governance and management of land may be politically unpalatable to the Canadian public, but it may be the kind of political evolution required if we are to succeed in transforming the North into a sustainable society.

To move us closer to this "Arctic dream", it is strongly urged that a settlement be finalized with the Native peoples of the North which will establish a third order of government over the aboriginal homelands. As Jull has remarked, "in northern Canada, it is possible through claims and political development processes to develop homelands as vehicles for planning and administration, as well as self-government and self-fulfillment of the first peoples of this land" (1986: 95). Under a final agreement, the government of Nunavut would be established and land-use planning would become the responsibility of such new agencies as the Nunavut Planning Commission, the Nunavut Impact Reciew Board, the Nunavut Water Board, and the Nunavut Wildlife Management Board. Thus, empowerment of indigenous peoples and their homeland governments would become the cornerstone of planning for sustainable development in the North. It would serve as a model to the rest of the world for beginning the process of entrenching the rights of aboriginal peoples in a way that will help reverse the style of development that has always neglected

environmental and human considerations. It would also take all of us further along the path of planning the common ground for an uncommon future.

BIBLIOGRAPHY

Alexander, K.G. (Panarctic Oils Ltd.). 1988. "Panarctic Oils Ltd. Response: Lancaster Sound Land Use Planning Commission First Draft." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Althuser, A. 1965. "The Goals of Comprehensive Planning." Journal of the American Insitute of Planning, V. 31, No. 1, pp. 186-195.

Anis'kowicz, B.T. (Candian Nature Federation). 1987. "Comments on 'Proposed Land Use in the Lancaster Sound Planning Region'." IN LSRLUPC(1987a), Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Anjum, S. 1983. "Land-Use Planning in the North Slope Borough." IN National and Regional Interests in the North: Proceedings of the Third National Workshop on People, Resources, and the Environment Northof 60°. Canadian Arctic Resources Committee (CARC): Ottawa.

Antoine, S. 1987. "Environment and Development: Contributrion to the Debate in the Developed Countries." IN F. Di Castri, et al (eds.), Ecology in Practice, Part II The Social Response. Tycooly InternationalPubs. Ltd.: Dublin.

Asch, M. 1984. Home and Native Land: Aboriginal Rights and the Canadian Constitution. Methuen: Toronto.

Audet, R. and Le He'naff, A. 1984. Land Planning Framework of Canada: An Overview. Working Paper No. 28. Lands Directorate, Environment Canada: Ottawa.

Bangay, G.E (Director, DIAND). 1988. "First Draft - Lancaster Sound Land Use Plan [Comments]." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

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

Barnaby, F. 1987. "Our Common Future---The 'Brundtland Commission' Report." Ambio, 16:4: 217-218.

Bayless, A. 1989. "The Shifting Alliances in the Push for Mackenzie Delta Gas." Financial Times of Canada, Mon., March 13, 1989. Southam Inc.:Toronto.

Berger, T.R. 1977. Northern Frontier, Northern Homeland: Report of the Mackenzie Valley Pipeline Inquiry. 2 Vols. Supply and Services Canada: Ottawa.

Berger, T.R. 1985. Village Journey: The Report of the Alaska Native Review Commission. Hill and Wang: New York.

Berman, M. 1981. The Reenchantment of the World. Cornell University Press: Ithaca.

Boothroyd, P. and Rees, W.E. 1984. Impact Assessment from Pseudo-Science to Planning Process: An Educational Response. DiscussionPaper No. 3., School of Community and Regional Planning, U.B.C.:Vancouver.

Boschken, H.L. 1982. Land Use Conflicts: Organizational Design and Resource Management. University of Illinois Press: Urbana.

Boulding, K.E. 1974. "Reflections in Planning: The Value of Uncertainty." Technological Review, Oct.-Nov., 1974: 8.

Boutilier, A, Bastedo, J., and Hans, B. 1986. Issues, Information and Interests Catalogue for the Lancaster Sound Region. Draft 2. NLUPO: Yellowknife.

Brody, H. "Ecology, Politics and Change: The Case of the Eskimo." Development and Change, V. 9, p. 30.

Burton, I. and Kates, R.W. 1964. "Slaying the Malthusian Dragon." Economic Geography, V. 40, pp.82-89.

Canadian Arctic Resources Committee (CARC). 1987. "Comments on the Lancaster Sound Regional Land Use Commission's Discussion Paper, Proposed Land Uses in the Lancaster Sound Planning Region'." IN LSRLUPC(1987a),Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Canadian Council of Resource and Environment Ministers (CCREM). 1987. Report of the National Task Force on Environment and Economy (NTFEE). CCREM: Ottawa.

Canadian Environmental Assessment Research Council (CEARC) and United States National Research Council (NRC). 1986. Cumulative Environmental Effects: A Binational Perspective. Supply and Services Canada: Ottawa.

Carley, M.J. 1984. Cumulative Socioeconomic Monitoring: Issues and Indicators for Canada's Beaufort Region. GNWT and DIAND: Ottawa.

Catton, Jr., W.R. 1982. Overshoot: The Ecological Basis of Revolutionary Change. The Univ. of Illinois Press: Chicago.

Crosbie, C.A. (C.A. Crosbie Shipping) 1987. "Proposed Land Uses in the Lancaster Sound Planning Region." IN LSRLUPC(1987a), Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Crosbie, C.A. 1987. "Shipping Industry Perspective." IN Lancaster Sound Regional Land Use Planning Commission (LSRLUPC), Report of Working Group Workshop, Pond Inlet, N.W.T. NLUPO: Yellowknife.

Dacks, G. 1981. A Choice of Futures: Politics in the Canadian North. Methuen: Toronto.

Dasmann, R.F. 1984. Environmental Conservation. John Wiley & Sons:Toronto.

Dasmann, R.F., Milton, J.P., and Freeman, P.H. 1973. Ecological Principles for Economic Development. John Wiley & Sons: Toronto.

Davidson, B. (G.N.W.T., Priorities and Planning Secretariat). 1988. "Lancaster Sound Draft Regional Land Use Plan [Comments]." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Davidson, M.A. 1981. Policy and Decision-Making in the North: The Case of Lancaster Sound. M.A. Thesis, School of Community and Regional Planning, U.B.C.: Vancouver.

Del Degan, E. 1987. Summary of the Issues and Opportunities Workshop, April 29-May 1, 1987, Resolute Bay, N.W.T. NLUPO: Yellowknife.

Department of National Defense (DND). 1987. "DND Requirement in the Lancaster Sound Planning Region." IN LSRLUPC(1987a), Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Dept. of Indian Affairs and Northern Development (DIAND). 1972. Canada's North: 1970-1980. Information Canada: Ottawa.

DIAND and GNWT. 1983. "Northern Land-Use Planning, Northwest Territories, Basis of Agreement." Dept. of Indian Affairs and Northern Development: Ottawa.

DIAND and TFN. 1984. "Land Use Planning Provisions of an Agreement-in-Principle." An Agreement Between the Tungavik Federation of Nunavut (TFN) and the Department of Indian Affairs and Northern Development (DIAND), Frobisher Bay.

DIAND. 1969. Canada North of 60°: An Introduction to Resource and Economic Development in the Yukon and Northwest Territories. Information Canada: Ottawa.

DIAND. 1982. Land Use Planning in Northern Canada. DIAND: Ottawa.

DIAND. 1985. The Western Arctic Claim: The Inuvialuit Final Agreement. DIAND: Ottawa.

DIAND. 1986. "General Terms of Reference for Land Use Planning in Lancaster Sound." DIAND: Ottawa.

Dickinson, D.M. and Herman, T.B. 1979. Management of Some Terrestrial Mammals in the Northwest Territories for Sustained Yields. Dept. of Information, GNWT: Yellowknife.

Dirschl, H.J. 1982. The Lancaster Sound Region: 1980-2000: Issues and Options on the Use and Management of the Region. Green Paper. DIAND: Ottawa.

Dirschl, H.J. and Loken, O. 1979. Study Outline for Green Paper. DIAND: Ottawa.

Dirschl, H.J.(ed.). 1980. The Lancaster Sound Region: 1980-2000. Draft Green Paper prepared by The Working Group on the Lancaster Sound Regional Study. DIAND: Ottawa.

Dirschl, H.J.(ed.). 1980. The Lancaster Sound Region: 1980-2000: Draft Green Paper. DIAND: Ottawa.

Dosman, E.J. 1975. The National Interest: The Politics of Northern Development 1968-1975. McClelland and Stewart: Toronto.

Dror, Y. 1963. "The Planning Process: A Facet Design." International Review of Administrative Science, V. 29, No. 1, pp. 46-58.

Elliot, J. 1981. The Sociology of Natural Resources. Butterworths:Toronto.

Energy, Mines and Resources (E, M & R), G.N.W.T. 1987 IN E. Del Degan, Summary of the Issues and Opportunities Workshop, April 29-May1, 1987, Resolute Bay, N.W.T. NLUPO: Yellowknife.

Energy, Mines and Resources Canada (EMR). 1976. An Energy Strategy for Canada: Policies for Self Reliance. Supply and Services Canada: Ottawa.

Energy, Mines and Resources Canada (EMR). 1980. The National Energy Program. Supply and Services Canada: Ottawa.

Engelhardt, R. (Canada Oil and Gas Lands Administration). 1987. "Lancaster Sound Regional Land Use Plan - Discussion Paper." IN LSRLUPC (1987a), Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Environment Canada. 1983. Environment Canada and the North: Discussion Paper. Environment Canada: Ottawa.

Environment Canada. 1984. Sustainable Development: A Submission to the Royal Commission on the Economic Union and Development Prospects for Canada. Environment Canada: Ottawa.

Erasmas, G. 1977. "We the Dene." IN M. Watkins (ed.), Dene Nation: The Colony Within. Univ. of Toronto Press: Toronto.

Fabos, J.G. 1985. Land-Use Planning: From Global to Local Challenge. Chapman and Hall: New York.

Farvar, M.T. and Glaeser, B. 1984. "The Politics of Ecodevelopment: A Cart Before the Horse?" IN B. Glaeser (ed.), Ecodevelopment: Concepts, Projects, Strategies. Pergamon Press: Toronto.

Federal Environmental Assessment Review Office (FEARO). 1979. Lancaster Sound Drilling. Report of the Environmental Assessment Panel. Supply and Services Canada: Ottawa.

Federal Environmental Assessment Review Office (FEARO). 1980. Arctic Pilot Project (Northern Component). Report of the Environmental Assessment Panel. Supply and Services Canada: Ottawa.

Fenge, T. 1987. "Land-Use Planning in Canada's North: A Wind of Change or a Bag of Wind." IN T. Fenge and W.E. Rees(eds.), Hinterland or Homeland? Land-Use Planning in Northern Canada. Canadian Arctic Resources Committee: Ottawa.

Fenge, T. and Rees, W.E(eds.). 1987. Hinterland or Homeland? Land-Use Planning in Northern Canada. Canadian Arctic Resources Committee: Ottawa.

Fisher, R. and Uri, W. 1981. Getting to Yes: Negotiating Agreement Without Giving In. Penguin: Middlesex.

Fisheries and Oceans (DFO). 1987. Canadian Arctic Marine Conservation Strategy. Supply and Services Canada: Ottawa.

Friedmann, J. 1987. Planning in the Public Domain: From Knowledge to Action. Princeton Univ. Press: Princeton, N.J.

Fuller, W.A. and Hubert, B.A. 1981. "Fish, Fur and Game in the Northwest Territories: Some Problems of, and Prospects for, Increased Harvest." IN M.M.R. Freeman (ed.), Renewable Resources and the Economy of the North. Assoc. of Canadian Universities or Northern Studies: Ottawa.

Funk and Wagnalls. 1976. Standard College Dictionary, Canadian Edition. Fitzhenry and Whiteside Ltd.: Toronto.

Galtung, J. 1978. "Towards a New International Technological Order." Alternatives, V. 4, pp. 277-300.

Gardner, J.E. 1987. Initial Review of Environmental Assessment and Related Processes in Support of Sustainable Development: A Discussion Paper. A Report Prepared for the Canadian Environmental Assessment Research Council (CEARC): Ottawa.

Ge'rin, J. (Assoc. Deputy Minister, DIAND) 1987. Letter to Andrew Macpherson, Regional Director, DIAND.IN LSRLUPC(1987a),Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Gibson, R.B. 1978. The Strathcona Sound Mining Project: A Case Study of Decision Making. Science Council of Canada Background Study No. 42. Supply and Services Canada: Ottawa.

Glaeser, B. and Vyasulu, V. 1984. "The Obsolescence of Ecodevelopment." IN B. Glaeser (ed.), Ecodevelopment: Concepts, Projects, Strategies. Pergamon Press: Toronto.

Globe and Mail. 1989. "Inuit Excluded from Arctic Pollution Meeting." The Globe and Mail, Wed., March 1, 1989. Canadian Newspapers Co. Ltd.:Toronto.

Graham, K.A., Brown, M.P.S., McAllister, A.B. and Wojciechowski, M.J. 1984. A Climate for Change: Alternatives for the Central and Eastern Arctic. Queens Univ.: Kingston, Ontario.

Gray, E. 1979. Super Pipe: The Arctic Pipeline---World's Greatest Fiasco. Griffin House: Toronto.

Hackman, A. (World Wildlife Fund). 1987. "Comments on Proposed Land Uses in the Lancaster Sound Planning Region." IN LSRLUPC (1987a), Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Hart, P.J. (G.N.W.T., Energy, Mines and Resources). 1988. "Lancaster Sound Regional Land Use Plan - First Draft [Comments]." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Holdgate, M. 1987. "Conclusions of the Conference." IN P. Jacobs and D. Munro (eds.), Conservation with Equity: Strategies for Sustainable Development. International Union for the Conservation of Nature (IUCN): Cambridge, U.K.

Holling, C.S. 1987. Personal Communication in Resource Ecology 500. Institute of Animal Resource Ecology, U.B.C.: Vancouver.

Hudson, R. and Plum, V. 1984. Deconcentration or Decentralization? Local Government and the Possibilities for Local Control of Local Economies. U.B.C. Planning Papers, Community Studies, #12, School of Community and Regional Planning, U.B.C.: Vancouver.

Hunt, C. 1976. "The Development and Decline of Northern Conservation Reserves." Contact 8, p. 40.

Inoue, Y. 1986. An Alternative Approach to Regional Planning: A Carrying Capacity Framework for Achieving a Viable Society. M.A. Thesis, School of Community and Regional Planning, U.B.C.: Vancouver.

International Union for Conservation of Nature and Natural Resources (IUCN). 1986. World Conservation Strategy:Living Resource Conservation for Sustainable Development. IUCN: Gland, Switzerland.

Inuit Tapirisat of Canada (ITC). 1982. Land and Resource Elements of an Agreement-in-Principle. ITC: Ottawa.

Inuit Tapirisat of Canada (ITC). 1982. "The Land and Resource Elements of an Agreement-in-Principle." An Unpublished Report Prepared for Land Claims Negotiations Between the Inuit of Nunavut and the Government of Canada. ITC: Ottawa.

Jacobs, P. 1981. "Cultural Impacts of Environmental Assessment." Environmental Impact Assessment Review, V. 2, No. 3: 222-225.

Jacobs, P. 1981. People, Resources and the Environment: Perspectives on the Use and Management of the Lancaster Sound Region. Public Review Phase. DIAND: Ottawa.

Jacobs, P. 1984. "A Sustainable Society Through Sustainable Development: Towards A Regional Development Strategy for Northern Quebec." AnUnpublished Paper. Ecole d'architecture de paysage, Faculte´ de l'ame´nagement, Universite´de Montre´al: Montre´al, Quebec.

Jacobs, P. 1985. "The Lancaster Sound Regional Study." IN J.A. McNeely and D. Pitt (eds.), Culture and Conservation: The Human Dimensions in Environmental Planning. Croom Helm: London.

Jacobs, P. and Fenge, T. 1986. "Integrating Resource Management in Lancaster Sound: But on Whose Terms?" IN R. Lang (ed.), Integrated Approaches to Resource Planning and Management. Univ. of Calgary Press: Calgary.

Jacobs, P. and Kemp, W.B. 1987. "New Institutions and Land-Use Planning in Northern Quebec." IN T. Fenge and W.E. Rees(eds.), Hinterland or Homeland? Land-Use Planning in Northern Canada. Canadian Arctic Resources Committee: Ottawa.

Jacobs,P. and Munro, D. (ed.). 1987. Conservation with Equity: Strategies for Sustainable Development. International Union for the Conservation of Nature (IUCN): Cambridge, U.K.

Jacobs, P. and Palluq, J. 1983. The Lancaster Sound Regional Study: Public Review, Public Prospect. DIAND: Ottawa.

Jasper, J.N. (Water Planning & Managemnt, DIAND). 1988. "Review: First Draft-Lancaster Sound Regional Land Use." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Jones, M. 1983. "Northern Communities and Regional Planning." IN National and Regional Interests in the North: Proceedings of the Third National Workshop on People, Resources, and the Environment North of 60°. Canadian Arctic Resources Committee: Ottawa.

Jull, P. 1984. Self-Government for Northern Peoples: Canada and the Circumpolar Story. A Report Prepared for the Aboriginal Rights and Constitutional Development Secretariat, GNWT: Yellowknife.

Jull, P. 1986. "Politics, Development and Conservation in the International North." CARC Policy Paper 2. Canadian Arctic Resources Committee: Ottawa.

Keating, M. 1988. "Limitless Growth: Sustainable Development is Good Business." The Globe and Mail, Sat., Jan. 16, 1988. Canadian Newspapers Co. Ltd.: Toronto.

Keith, R.F. and Simon, M. 1987. "Sustainable Development in the Northern Circumpolar World." IN P. Jacobs and D. Munro (eds.), Conservation with Equity: Strategies for Sustainable Development. International Union for the Conservation of Nature (IUCN): Cambridge, U.K.

Kent, T.J. 1964. The Urban General Plan. Chandler Pub. Co.: San Francisco.

Lancaster Sound Regional Land Use Planning Commission (LSRLUPC). 1987b. The Lancaster Sound Regional Land Use Plan: First Draft. NLUPO: Yellowknife.

Lancaster Sound Regional Land Use Planning Commission (LSRLUPC). 1987c. Minutes of the Community Workshops, March 1987. NLUPO: Yellowknife.

Land Use Planning Division (G.N.W.T.). 1987. "'Proposed Land Uses in the Lancaster Sound Planning Region': Government of the NorthwestTerritories Response." IN LSRLUPC (1987a), Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

Lang, R. and Armour, A. 1980. Environmental Planning Resourcebook. Lands Directorate, Environment Canada: Ottawa.

Livingston, R. and Bastedo, J. 1988. "Northwest Territories Conservation Strategy." Paper presented at a Conference on Advancing Sustainable Development Through Northern Conservation Strategies, Feb. 16-19,1988, Vancouver,B.C.

Livingston, R. (Policy and Planning, Renew. Resources). 1988. "First Draft of Lancaster Sound Plan [Comments]." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Lloyd, K. (G.N.W.T., Wildlife Management Division, Renew. Resources). 1988. "Lancaster Sound Regional Land Use Plan - First Draft [Comments]." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

LSRLUPC (Lancaster Sound Regional Land Use Planning Commission). 1987a. Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

LSRLUPC. 1987b. The Lancaster Sound Regional Land Use Plan, First Draft. NLUPO: Yellowknife.

LSRLUPC. 1987c. Minutes of the Community Workshops, March 1987. NLUPO: Yellowknife.

LSRLUPC. 1988a. Comments on Lancaster Sound Regional Land Use Draft Plan. NLUPO: Yellowknife.

LSRLUPC. 1988b. The Lancaster Sound Regional Land Use Plan, Second Draft. NLUPO: Yellowknife.

LSRLUPC. 1988c. Update 6, Dec. 1988. NLUPO: Yellowknife.

Manning, E.W. 1980. Issues in Canadian Land Use. Working Paper No. 9. Lands Directorate, Environment Canada: Ottawa.

Manning, E.W. 1986. Towards Sustainable Land Use: A Strategy. Working Paper No. 47. Lands Directorate, Environment Canada: Ottawa.

Manuel, G. and Posluns, M. 1974. The Fourth World: An Indian Reality. Collier-Macmillan Canada: Don Mills, Ontario.

Marr, I. (Canadian Coast Guard)). 1988. "Lancaster Sound Regional Land Use Plan (1st Draft)[Comments]." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Marsh, G.P. 1864. Man and Nature: or Physical Geography as Modified by Human Action. Scribner's: New York.

McBeath, G.A. and Morehouse, T.A. 1980. The Dynamics of Alaska Native Self-Government. University Press of America:Lanham, Maryland.

McCay, B.J. and Acheson, J.M. 1987. "Human Ecology of the Commons." IN B.J. McCay and J.M. Acheson(eds.), The Question of the Commons. The Univ. of Arizona Press:Tucson.

McCormick, K.J. (Environment Canada). 1987. "'Proposed Land Uses in the Lancaster Sound Planning Region':A Review." IN LSRLUPC(1987a), Proposed Land Uses in the Lancaster Sound Planning Region. NLUPO: Yellowknife.

McNeely, J.A. and Pitt, D. 1985. "Culture: The Missing Element in Conservation and Development." IN J.A. McNeely and D. Pitt (eds.), Culture and Conservation: The Human Dimensions in Environmental Planning. Croom Helm: London.

McTiernan, T.J. 1988. "A Conservation Strategy for the Yukon: Process and Products." Paper presented at a Conference on Advancing Sustainable Development Through Northern Conservation Strategies, Feb. 16-19,1988, Vancouver, B.C.

Meadows, D., et al. 1972. The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind. Universe Books:New York.

Miller, C.G. (Mining Assoc. of Canada). 1988. Letter Commenting on the First Draft of the Lancaster Sound Regional Land Use Plan. IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Mining Working Group. 1987. "Report of the Mining Working Group." IN LSRLUPC, Report of Working Group Workshop, Pond Inlet, N.W.T. NLUPO: Yellowknife.

Moll, D. 1987a. Regional and Community Profiles for the Lancaster Sound Planning Area. NLUPO: Yellowknife.

Moll, D. 1987c. An Assessment of Socio-Economic Environments of the Lancaster Sound Region. NWTLUPC: Yellowknife.

Moll, D. and Walker, E. 1987. Non-Renewable Resources in the LancasterSound Land Use Planning Region: An Inventory and Assessment. NWTLUPC: Yellowknife.

Moll, D.(ed.). 1987b. Dimensions of Socio-Economic Environment of the Lancaster Sound Region: An Annotated Bibliography. NWTLUPC:Yellowknife.

Morrell, M. 1985. The Gitksan and Wet'suwet'en Fishery in the Skeena River System. Gitksan-Wet'suwet'en Tribal Council: Hazelton, B.C.

Munro, D.A. 1986. "Environmental Impact Assessment as an Element of Environmental Management." IN Canadian Environmental Assessment Research

Council (CEARC) and United States National Research Council (NRC). Cumulative Environmental Effects: A Binational Perspective. Supply and Services Canada: Ottawa.

Myers, H., et al. (G.N.W.T., Baffin Region). 1988. "Regional Comments on Draft Plan." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Naysmith, J.K. 1973. Toward a Northern Balance. Information Canada: Ottawa.

Nelles, H.V. 1974. The Politics of Development: Forests, Mines and Hydro-Electric Power in Ontario, 1849-1941. Macmillan of Canada: Toronto.

Nesbitt, T. 1987. "Report on the Beaufort/Delta Land Use Planning Training Workshop." Thomas Nesbitt and Associates: Yellowknife, N.W.T.

NLUPO (Northern Land Use Planning Office) . 1986a. Comparative Review of Regional Land Use Planning Approaches. NLUPO: Yellowknife.

NLUPO. 1986b. A Review of Legislative and Regulatory Processes Relevant to Land Use Planning in the Northwest Territories. NLUPO: Yellowknife.

Nunavut Constitutional Forum (NCF). 1983. Building Nunavut. NCF: Yellowknife.

NWTLUPC (Northwest Territories Land Use Planning Commission). 1987. Annual Report, 1986-87. NWTLUPC: Yellowknife.

NWTLUPC. 1988 Annual Report, 1987-88. NWTLUPC: Yellowknife.

O'Riordan, T. 1981. Environmentalism. Pion Ltd.: London.

Office of Environmental Conservation, DIAND. 1988. Status Report: Working Group on Northern Conservation Strategies. DIAND: Ottawa.

Olson, R., Geddes, F. and Hastings, R.(eds.). 1984. Northern Ecology and Resource Management: Memorial Essays Honouring Don Gill. The University of Alberta Press: Edmonton.

Owen, O.S. 1985. Natural Resource Conservation: An Ecological Approach. Macmillan Publishing Co.: New York.

Page, R. 1986. Northern Development: The Canadian Dilemma. McClelland and Stewart Ltd.: Toronto.

Patterson, W.T. 1979. Land Use Planning: Techniques of Implementation. Van Nostrand Reinhold Co.: New York.

Petch, A.R. 1985. Planning Integrated Resource Management in Alberta. Working Paper No. 43. Lands Directorate, Environment Canada: Ottawa.

Prescott-Allen, R. 1987. "The World Conservation Strategy: A Second Look." IN P. Jacobs and D. Munro (eds.), Conservation with Equity: Strategies for Sustainable Development. International Union for the Conservation of Nature (IUCN): Cambridge, U.K.

Prescott-Allen, R. and Prescott-Allen, C. 1986. Towards an Inuit Regional Conservation Strategy. A Report Prepared for the Environmental Commission, Inuit Circumpolar Conference.

Rea, K.J. 1976. The Political Economy of Northern Development. Science Council of Canada Background Study No. 36. Information Canada: Ottawa.

Rees, W.E. 1978. "Development and Planning North of 60°: Past and Future." IN R.F. Keith and J.B. Wright(eds.), Northern Transitions, Second National Workshop on People, Resources and the Environment North of 60°, Vol. II, Canadian Arctic Resources Committee (CARC): Ottawa.

Rees, W.E. 1983. "Northern Land Use Planning: In Search of a Policy." IN National and Regional Interests in the North: Proceedings of the Third National Workshop on People, Resources, and the Environment Northof 60°. Canadian Arctic Resources Committee: Ottawa.

Rees, W.E. 1985. "Northern Land Use Planning: Genesis of a Program." Plan Canada, V. 25, No. 3, pp. 88-96.

Rees, W.E. 1986. Letter to Dr. Bruce Fraser, Chairman of B.C. Conservation Strategy Committee. School of Community and Regional Planning, U.B.C.: Vancouver.

Rees, W.E. 1986. "Stable Community Development in the North: Properties and Requirements." IN G. Dacks and K. Coates(eds.), Northern Communities: The Prospect for Empowerment. Boreal Institute of Northern Studies, Univ. of Alberta: Edmonton.

Rees, W.E. 1987. "Introduction: A Rationale for Land-Use Planning." IN T. Fenge and W.E. Rees(eds.), Hinterland or Homeland? Land-Use Planning in Northern Canada. Canadian Arctic Resources Committee: Ottawa.

Rees, W.E. 1988. "Sustainable Development: Economic Myth and Ecological Reality." Trumpeter, V. 5, ˆo. 4, pp. 133-138.

Rees. W.E. and Davis, H.C. 1978. "Coastal Ecosystem Planning and Impact Evaluation." Coastal Zone '78, pp. 601-620.

Regier, H.A. and Baskerville, G.L. 1986. "Sustainable Redevelopment of Regional Ecosystems Degraded by Exploitative Development." IN W.C. Clark and R.E. Munn (eds.), Sustainable Development of the Biosphere. Cambridge University Press: Cambridge.

Repetto, R.(ed.). 1985. The Global Possible: Resources, Development, and the New Century. Yale University Press: New Haven.

Richardson, N.H. 1982. "Land Use Planning, Regional Planning and Environmental Assessment: A Preliminary Review of Issues." Prepared for the Beaufort Sea Environmental Assessment Panel: Vancouver.

Richardson, N.H. 1983. "Environmental Impact Assessment and Regional Planning." IN J.D. Wiebe, E.H. Kustan, and S. Hum(eds.), International Workshop on Environmental Planning for Large-Scale Development Projects. Environment Canada: Ottawa.

Richardson, N.H. 1987. "The Northern Land-Use Planning Agreements: A Commentary." IN T. Fenge and W.E. Rees(eds.), Hinterland or Homeland? Land-Use Planning in Northern Canada. Canadian Arctic Resources Committee: Ottawa.

Roberts, J.C. 1978. "Principles of Land Use Planning." IN M.T.Beatly, G.W. Petersen and L.D. Swindale(eds.), Planning the Uses and Management of Land. The American Society of Agronomy: Washington, D.C..

Roberts, R.D. 1986. "Planning Procedures Workshop: Results and Recommendations." A Report Prepared for the Northwest Territories Land Use Planning Commission (NWTLUPC) and the Northern Land Use Planning Office (NLUPO). Praxis: Calgary.

Robertson, I.D. (G.N.W.T., Land Use Planning Division, Renew. Resources). 1988. "Comments - Lancaster Sound First Draft." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Robinson, M. and Ghostkeeper, E. 1987. "Native and Local Economies: A Consideration of Economic Evolution and the Next Economy." Arctic, V. 40, No. 2, pp. 138-144.

Roots, E.F.(ed.). 1979. Lancaster Sound: Issues and Responsibilities. Canadian Arctic Resources Committee (CARC): Ottawa.

Ross, D.P. and Usher, P.J. 1986. From the Roots Up: Economic Development as If Community Mattered. James Lorimer & Co.: Toronto.

Rueggeberg, H.I. 1983. Northern Land Use Planning: A Context for Wildlife Habitat Management and Conservation in the Beaufort Sea-Mackenzie Delta Region. M.A. Thesis, School of Community and Regional Planning,U.B.C.: Vancouver.

Sachs, I. 1978. "The Salient Features of Development." IN G. Francis (ed.), Environment and Development---Phase III. Canadian International Development Agency: Ottawa.

Sadler, B. 1986. "Impact Assessment in Transition: A Framework for Redeployment." IN R. Lang(ed.), Integrated Approaches to Resource Planning and Management. Univ. of Calgary Press: Calgary.

Salisbury, R.F. 1986. A Homeland for the Cree: Regional Development in James Bay, 1971-1981. McGill-Queen's University Press: Montreal.

Schneider, D., et al. 1978. The Carrying Capacity Concept as a Planning Tool. American Planning Association: Chicago.

Simmons, N.M., Dinihee, J., and Monaghan, H. 1984. "Planning for Land Use in the Northwest Territories." IN Olson, R., Geddes, F. and Hastings, R.(eds.). Northern Ecology and Resource Management: Memorial Essays Honouring Don Gill. The University of Alberta Press: Edmonton.

Skidmore, Owings & Merril. 1981. Areawide Environmental Impact Assessment: A Guidebook. Office of Policy Development and Research U.S. Dept. of Housing and Urban Development: Washington, D.C.

Soemarwoto, O. 1982. "Interrelations Among Population, Resources, Environment and Development." IN Environment and Development in Asia and the Pacific, UNEP Reports and Proceedings, Series 6. United Nations Environment Program (UNEP): Nairobi.

Sonntag, N.C., Everitt, R.R., Rattie, L.P., Colnett, D.L., Wolf, C.P., Truett, J., and Dorcey, A. 1986. Cumulative Effects Assessment: A Context for Further Research

and Development. Canadian Environmental Assessment Research Council (CEARC): Ottawa.

Staples, L. 1983. "Land-Use Planning in the Yukon." IN National and Regional Interests in the North: Proceedings of the Third National Workshop on People, Resources, and the Environment North of 60°. Canadian Arctic Resources Committee (CARC): Ottawa.

Staples, L. 1988. "Toward a Northern Development Strategy." Northern Perspective, V. 16, No. 2, pp. 4-6.

Strong, M.F. 1980. "A Time for Action." IN F. Feather(ed.), Through the '80s: Thinking Globally, Acting Locally. World Future Society: Washington.

Sustainable Development Communications Project. 1988. Focus B.C.: A Newsletter Supporting Sustainable Development, June, 1988. Sustainable Development Communications. Project: Vancouver.

Sutherland, D.H. (Fisheries and Oceans). 1988. "Lancaster Sound Regional Land Use Plan: Comments from the Department of Fisheries and Oceans." IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Swenarchuk, M. 1988. "Environmental Impacts of the Canada-U.S. Free Trade Agreement." Paper Prepared by the Canadian Environmental Law Association: Toronto.

Te´trault, M. 1986. "Environment." Development, Special Issue, June, 1986. Canadian International Development Agency: Ottawa.

Tungavik Federation of Nunavut (TFN), Dene Nation, and Metis Association of the Northwest Territories. 1983. "Press Release, 5 May 1983. A Joint Statement of Principles." IN National and Regional Interests in the North: Proceedings of the Third National Workshop on People, Resources, and the Environment North of 60°. Canadian Arctic Resources Committee (CARC): Ottawa.

United Nations Environment Programme (UNEP). 1973. Proceedings. UNEP Governing Council: Geneva.

Virtue, C.B. (Canadian Petroleum Assoc.). 1988. Letter Commenting on the First Draft of the Lancaster Sound Regional Land Use Plan. IN LSRLUPC (1988a), Comments on Lancaster Sound Regional Land Use Plan. NLUPO: Yellowknife.

Watkins, M.(ed.). 1977. Dene Nation: The Colony Within. Univ. of Toronto Press: Toronto.

Witty, J.R. 1987. Letter to Hal Mills, Executive Secretary, NWTLUPC. IN E. Del Degan, Summary of the Issues and Opportunities Workshop,April 29-May1, 1987, Resolute Bay, N.W.T. NLUPO: Yellowknife.

World Commission on Environment and Development (WCED). 1987. Our Common Future. Oxford Univ. Press: Oxford.

World Media Institute, Inc. 1986. Tribute, Special Review Edition, 1:3.