Université de Montréal

# Environmental Assessment and Viable Interdependence: The Great Whale River Case in Northern Quebec

par

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Faculté de l'Aménagement

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Mars 1997

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Cette thèse intitulée:

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#### Abstract

Northern aboriginal communities seek to establish and maintain more viable forms of interdependence with the south in order to redress patterns of southern-imposed development projects which are often perceived to be ecologically unsustainable and socially inequitable. This thesis hypothesizes that environmental assessment (EA) can be supportive of *viable interdependence* between regions and cultures. The thesis focuses on the scoping stage of EA and explores its potential through a case study: the scoping process conducted for the proposed Great Whale River Hydroelectric project in Northern Quebec. The goal of the research was to gain a better understanding of the potential role of scoping processes in the pursuit of viable interdependence.

The research method consisted of literature review; contextual field research; informal interviews; case study; direct participation in the case study; and evaluation of the case study using an experimental evaluative framework. The evaluative framework of the thesis consists of 16 criteria divided into three interrelated categories: *substantive*, *process-oriented* (general); and the more experimental process-oriented (specific). The specific process-oriented criteria are used as the primary analytical focus and are the subject of 5 separate "sub-analyses".

The sub-evaluations revealed strengths and deficiencies with respect to the performance of the case study. The scoping process measured relatively well with respect to three of the specific process-oriented criteria, namely "appropriate balance of formality and informality"; "receptive to multiple knowledge systems and patterns of expression"; and "problem-setting function". The process performed less well with respect to "interpretive capacity/function". Finally, the process performed relatively poorly with respect to "facilitates interparadigmatic dialogue". On balance, the performance of the Great Whale scoping process with respect to the evaluative criteria suggests that important steps were taken toward viable interdependence. A key shortcoming of the process - the lack of dialogue between the proponent and intervenors, and particularly interparadigmatic communication - could be addressed by making the public hearings more dynamic and interactive.

There was an exceptionally high degree of innovation in the Great Whale scoping process. The EIS guidelines established new standards in terms of what would be required of the impact study process and product, particularly in the need for more enlightened consultation and justification of the project in intercultural terms. Taken together, the innovative

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elements of the process amount to a number of important lessons for intercultural EA, and should be noted by theorists and practitioners.

The case study demonstrated that scoping has significant potential to support viable interdependence, particularly if EA practitioners are proactive and attentive to process-oriented considerations. The Great Whale scoping process demonstrated that EA and scoping can be innovative, transformative, and strongly supportive of equitable outcomes. The prospect of making EA effective in an intercultural setting is therefore largely within the control of EA panels and other practitioners.

The thesis made progress toward defining viable interdependence and its criteria. The case study and analyses clarified somewhat the interrelationship of sustainable development and viable interdependence. Viable interdependence merits further consideration as a complementary framework to sustainable development. Overall, the research conducted in this thesis has produced a better understanding of the challenge of intercultural EA and scoping. It is recommended that future research focus on further development of the concept of viable interdependence as a means to pursue more sustainable and equitable forms of intercultural development; and further experimentation with and refinement of the evaluative framework. Finally, it is recommended that a comprehensive evaluation of the Great Whale scoping process be undertaken, since the more limited evaluation in this thesis demonstrated that the case study was ground-breaking in a number of regards.

#### Résumé

Les collectivités autochtones du nord du Canada ont souvent été victimes des effets des grands projets de développement imposés par les promoteurs du sud du pays. Pour les gens du Nord, les mégaprojets sont souvent perçus comme non respectueux de l'environnement, socialement inéquitables et culturellement inopportuns. Par ailleurs, le processus par lequel ces projets ont été proposés, conçus et mis en place s'est révélé insatisfaisant pour les collectivités touchées, qui ont plaidé en faveur d'une plus grande mesure de contrôle, de méthodes de consultation plus adéquates et d'une distribution plus équitable des effets et des avantages du développement. Les collectivités septentrionales cherchent maintenant à établir et à maintenir des liens d'interdépendance plus viables avec le Sud.

La présente thèse est fondée sur l'hypothèse que l'évaluation des répercussions environnementales (ÉRE) peut appuyer l'*interdépendance viable* entre les régions et les cultures. Elle porte principalement sur l'établissement de la portée (scoping) de l'ÉRE et examine le potentiel de cette évaluation au moyen de l'étude d'un processus de scoping mené dans le cadre du projet hydroélectrique Grande-Baleine dans le nord du Québec. Cette démarche visait à mieux comprendre le rôle potentiel du scoping dans la recherche d'une interdépendance viable. La méthode de recherche employée comprenait l'analyse documentaire, la recherche contextuelle sur le terrain, des interviews sous forme d'entretien libre, une étude cas, la participation directe à l'étude de cas et l'évaluation de l'étude de cas selon une méthode d'expérimentation évaluative. Les principales sources d'information étaient les observations du participant (l'auteur de la présente thèse), les transcriptions des audiences publiques et autres documents relatifs au processus d'ÉRE de Grande-Baleine.

Le cadre théorique de cette thèse consiste en l'interrelation entre l'interdépendance viable, l'ÉRE et le scoping. Le concept d'interdépendance viable y est décrit et étudié en termes de critères. La thèse montre les difficultés inhérentes au scoping dans un contexte interculturel et propose les éléments essentiels nécessaires à un tel processus pour appuyer une interdépendance viable. Le cadre théorique établit les principes dont sont tirés des critères précis aux fins de la méthode évaluative. Celle-ci consiste en 16 critères divisés en trois catégories interdépendantes : les critères substantifs, les critères généraux (axés sur le processus) et les critères spécifiques et plus expérimentaux (axés sur le processus). Les critères spécifiques axés sur le processus servent de cadre d'analyse et font l'objet de cinq « sous-analyses » distinctes. Le principe fondamental de cette méthode est que l'attention apportée au processus mène vraisemblablement aux résultats substantifs recherchés. À partir de ces sous-analyses, nous discutons les liens entre les trois catégories de critères évaluatifs et en tirons

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des conclusions générales. Nous avons établi ci-dessous la liste de ces critères évaluatifs.

#### Critères évaluatifs:

#### **Critères substantifs**

- Développement culturellement opportun
- Bon choix d'échelle, de calendrier d'application et de rythme de développement
- Développement équitable
- Développement durable du point de vue écologique
- Développement favorisant l'autonomie des collectivités

#### Critères axés sur le processus (généraux)

- Équité et respect
- Transparence et compréhension mutuelle
- Non-déterminisme
- Déplacement du pouvoir et de l'influence
- Fonction transformationnelle
- Libération des forces créatives de la collectivité

#### Critères axés sur le processus (spécifiques)

- Bon équilibre entre le caractère formel et informel
- Réceptivité à de nombreux systèmes de connaissances et de modèles d'expression
- Capacité et fonction d'interprétation
- Facilitation du dialogue inter-paradigmatique
- Fonction de définition des problèmes

Chacune des cinq sous-évaluations a révélé des avantages et des inconvénients en ce qui a trait à la performance de l'étude de cas. Le scoping a fait relativement bonne figure dans trois des critères spécifiques axés sur le processus, soit le bon équilibre entre le caractère formel et informel; la réceptivité à de nombreux systèmes de connaissances et de modèles d'expression; et la fonction de définition des problèmes. Il a par contre moins bien réussi dans le domaine des capacité et fonction



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d'interprétation. Enfin, la performance du scoping a été relativement faible en ce qui a trait à la facilitation du dialogue inter-paradigmatique. Nous avons résumé ci-dessous les principaux résultats de l'analyse de l'étude de cas.

## Résumé des principaux résultats des sous-évaluations:

Bon équilibre entre le caractère formel	Bon équilibre entre le caractère formel et informel durant les audiences relatives au scoping.
et informel	Le processus est généralement bien adapté aux divers endroits; les panels sont plus indulgents et informels durant les audiences dans le Nord.
	Une meilleure préparation ou du travail préparatoire au sein des collectivités effectués avant les audiences sur le scoping auraient avantagé le processus.
Réceptivité à de nombreux systèmes de connaissances et	Le scoping était réceptif aux connaissances écologiques traditionnelles (CÉT) dans les limites du processus, mais n'a pas réussi à les assimiler systématiquement.
de modèles d'expression	Les panels ont agi en qualité de catalyseurs dans la promotion des CÉT; ils ont ouvert la voie à leur intégration dans les étapes futures du processus d'ÉRE.
	Les panels étaient réceptifs à de nombreux moyens d'expression dans les limites de la durée du processus; des efforts raisonnables ont été faits en ce sens.
	Une meilleure préparation des panélistes est nécessaire; ceux-ci doivent s'initier aux différents moyens d'expression.
Fonction d'interprétation	La capacité d'interprétation n'avait pas été prévue dans la formation des panels.
	Les panels et le bureau de soutien ont fait un effort remarquable pour interpréter les interventions.
	L'interprétation du scoping était sélective et non exhaustive.
Facilitation du dialogue inter-	Les audiences sur le scoping étaient caractérisées par deux paradigmes fondamentaux contradictoires.
paradigmatique	Il y avait, au mieux, une tentative de dialogue entre le promoteur et les intervenants relativement aux tensions interparadigmatiques.
	Les efforts des panels pour amorcer le dialogue étaient sporadiques et sans succès pour la plupart.
	Un apprentissage, limité et progressif, a vraisemblablement eu lieu.



Fonction de définition des problèmes Au début du processus de scoping, un désaccord existait guant à la définition des problèmes.

Le processus de scoping a donné lieu à de nombreuses interventions non prévues dans la définition des problèmes.

Les panels ont cerné l'essentiel de la fonction de définition de problèmes durant le processus de scoping et l'ont incorporé dans les directives pour l'énoncé des incidences environnementales (ÉIE).

Les directives pour l'ÉIE recommandent au promoteur de projet de donner une définition des problèmes plus étendue, plus complète et plus pluraliste.

Dans l'ensemble, la performance du processus de scoping de Grande-Baleine en ce qui a trait aux critères évaluatifs suggère que des mesures importantes ont été prises pour favoriser une interdépendance viable. Les critères relatifs au développement équitable et culturellement opportun y ont été fortement appuyés. En général, le scoping a obtenu des résultats de loin supérieurs lorsque il s'agissait de « préparer la voie » à la recherche d'une interdépendance viable par l'intermédiaire de l'ÉRE que dans la résolution en tant que telle des conflits interculturels au sujet du projet de développement de Grande-Baleine. Un défaut fondamental du processus, le manque de dialogue entre le promoteur et les intervenants, notamment le manque de dialogue interparadigmatique, pourrait être amélioré en organisant des audiences publiques plus dynamiques et interactives. Il y aurait lieu de transformer le modèle statique du scoping en processus plus flexible qui pourrait s'adapter à la dynamique des audiences publiques dans les collectivités, et ouvrir de nouvelles possibilités. Le scoping profite à l'ERE dans la mesure où il facilite le dialogue.

Bien qu'il n'ait pas résolu le conflit au sujet du projet Grande-Baleine, le processus de scoping a réussi à mieux expliquer les problèmes et les différents points de vue, et a favorisé un apprentissage mutuel. Les directives pour l'ÉRE ont établi de nouvelles normes quant à ce qu'il nous faudrait obtenir du processus et du résultat de l'étude d'impact, notamment en ce qui a trait au besoin d'une consultation plus éclairée et à la justification du projet en termes interculturels. Le processus de scoping de Grande-Baleine était exceptionnel du point de vue de l'innovation. Ce cas représente un grand pas en avant dans la mise en oeuvre des processus d'ÉRE. Pris ensemble, les éléments innovateurs de ce processus nous donnent bon nombre de leçons importantes sur l'aspect interculturel de l'ÉRE, et méritent d'être pris en note par les théoriciens et les praticiens.

L'étude de cas a démontré que la pratique du scoping peut vraisemblablement appuyer une interdépendance viable, en particulier



lorsque les praticiens de l'ÉRE sont proactifs et attentifs aux considérations axées sur le processus. À Grande-Baleine, le scoping a démontré que l'ÉRE et le scoping peuvent être novateurs, informatifs et générateurs de résultats équitables. La perspective de rendre l'ÉRE efficace dans un milieu interculturel est donc facilement à la portée des panels de l'ÉRE et de leur personnel de soutien.

Cette thèse a contribué au développement du concept d'interdépendance viable et des critères qui la définissent. L'étude de cas et les analyses ont tiré au clair l'interrelation entre le développement durable et l'interdépendance viable. Celle-ci mérite une étude plus poussée en tant que cadre complémentaire au développement durable. Dans l'ensemble, la recherche effectuée dans le cadre de cette thèse a mené à une meilleure compréhension des défis que représentent l'ÉRE interculturelle et le scoping. Nous recommandons que les recherches futures portent sur le développement du concept d'interdépendance viable comme moyen de chercher des formes plus durables et équitables de développement interculturel et qu'elles affinent davantage le cadre évaluatif. Nous recommandons en outre une évaluation exhaustive du processus de scoping de Grande-Baleine, étant donné que l'évaluation de la présente thèse, pour limitée qu'elle soit, a démontré qu'elle était innovatrice à de nombreux égards.

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	List of Acronyms
AEAM	adaptive environmental assessment and management
BAPE	Bureau d'Audiences Publiques sur l'Environnement
BEARP	Beaufort Sea Environmental Assessment and Review Process
CARC	Canadian Arctic Resources Committee
CEAA	Canadian Environmental Assessment Act
CEARC	Canadian Environmental Assessment Research Council
COMEV	Evaluating Committee (Federal)
COFEX	Examining Committee (Federal)
EA	environmental assessment
EARP	Environmental Assessment and Review Process
EIA	environmental impact assessment
EIS	environmental impact statement
ICC	Inuit Circumpolar Conference
IRM	integrated resource management
IUCN	International Union for the Conservation of Nature
JBNQA	James Bay and Northern Quebec Act
KEQC	Kativik Environmental Quality Commission
KRG	Kativik Regional Government
MOU	memorandum of understanding
SIA	social impact assessment
TEK	traditional ecological knowledge
UNEP	United Nations Environmental Programme
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World Commission on Environment and Development WCED



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# Dedication

This thesis is dedicated to my parents, Michael and Romayne.



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# CHAPTER 1 INTRODUCTION, PROBLEM STATEMENT, GOALS AND OBJECTIVES, AND METHODOLOGY

#### **1.1 OVERVIEW OF RESEARCH AND THESIS**

The context for this thesis is the challenge of viable interdependence among regions, societies and cultures. Viable interdependence is a concept that is proposed to characterize the forms and patterns of development that address evolving and overlapping standards of ecological sustainability and social equity. Generally speaking, it implies the co-existence of cultures and economies without domination of one by the other. Viable interdependence has much in common with concepts of sustainable development - the overarching goal that inspired this research - but is proposed as a more limited and more immediately measurable goal than the latter.

The thesis makes use of a case study that encompasses:

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- 1. two interdependent regions the Kuujjuaraapik-Whapmagoostui area of northern Quebec, and the region to the south;
- 2. a major development proposal for the northern region the proposed Great Whale River hydroelectric project;
- 3. a public process for evaluating the project the scoping stage of the environmental assessment process.

The focus of the thesis is the experimental evaluation of the scoping stage of the environmental assessment process for the Great Whale River hydroelectric project and its potential contribution to viable interdependence. Scoping is defined generally as "...a process for identifying and assigning priority to the issues associated with a proposed action" (Ross, 1987). Key aspects of the scoping process are analyzed and evaluated against criteria which are described in an evaluative framework. The evaluative framework consists of 16 criteria divided into three tiers: *substantive*, *process-oriented* (general); and the more experimental process-oriented (specific). The specific process-oriented criteria are used as the primary analytical foci and are the subject of 5 separate "sub-analyses". On the basis of these sub-analyses, linkages among the three tiers of evaluative criteria are discussed in the final chapter. In other words, the performance of the case study against the specific process-oriented criteria is analyzed and evaluated as pathways to the general process-oriented and substantive criteria. The Great Whale scoping process is thus analyzed in two ways: in terms of its potential contribution to viable interdependence between the regions, and in terms of its contribution to the advancement of environmental assessment in general.

#### 1.1.1 Selection and justification of principal case study

The case study environmental assessment and review process (Great Whale) was selected on the basis the large scale and high public profile of the project, and the opportunities for innovation afforded by a joint review involving several panels and a diversity of stakeholders. The scoping stage of the review was selected as the primary focus since it offers significant opportunities for innovation during the assessment and review process. At the scoping stage, issues are identified, terms of reference are determined, assumptions are examined and problems are defined. Scoping literally sets the stage for the entire environmental assessment and review process, and appears to offer the most potential within the process for, among other things, ".... a subtle reshaping of relationships, reshaping of power, reshaping and expanding information flow." (Tryzna & Gotelli, 1990) The Great Whale environmental assessment and review process was terminated prematurely after a provincial policy decision in 1994 resulted in the withdrawal of the project by the proponent. The scoping process, however, was conducted and concluded with the issuance of guidelines for preparation of the environmental impact statement. The diversity of the actors involved in the joint review, the high level of public scrutiny, and the intercultural nature of the proposed project combine, along with other factors, to make Great Whale a valuable case study with respect to general process development for environmental assessment, and also with respect to the contribution of the process to viable interdependence.

#### 1.1.2 Participative approach to research

Research conducted during the scoping process was participative in nature. Direct participation in the environmental review process for the Great Whale project was made possible by contractual employment as an assistant to the Kativik Environmental Quality Commission, and as part of a team of support staff involved in the joint review. The work involved planning and organizing public hearings, analyzing transcripts from the scoping hearings and drafting guidelines for the proponent's impact statement. The public scoping sessions were held over several months in 1992 and took place in various northern communities as well as Montreal. Participant observation was thus made possible throughout the scoping process. A journal was maintained to document relevant issues and concepts arising from the scoping process.



#### 1.2.1 Ideological context of the thesis

The quest for "sustainable development" provides the challenge inspiring this thesis research. The choice of "sustainable development" or "sustainability" as a guiding framework or ideology must first be explained before proceeding further, since it embodies certain assumptions. These assumptions are: that environments or ecosystems are at risk because of human activity and are worth protecting (Brown et al, 1994; Meadows et al, 1992; MacNeill et al, 1991; Goodland, 1992); that a strictly anthropocentric or utilitarian view of nature is at the root of patterns of ecological unsustainability (Sale, 1988; Devall & Sessions, 1985); that an ecological world view alone is insufficient as a solution to environmental problems (MacNeill et al, 1992; Robinson & Van Bers, 1996); and that correcting socially and culturally inequitable patterns of development is integral to the challenge of sustainable development (Jacobs & Munro, 1987; MacNeill et al, 1992). Finally, I assume that "sustainable development" provides an adequate and worthy framework for research. Before returning to these premises, it is necessary to provide an overview of the origin and definition of these concepts.

"Preservation" and "conservation" are the ideological antecedents of the North American version of the "environmental" movement, or "environmentalism" (O'Riordan, 1981). These related ideologies are all based on particular views of nature, its components, and human interactions with nature. Preservation and conservation held that humans should be careful in their use of natural resources for reasons of "wise use" or "stewardship", but did not explicitly challenge the underlying assumption of the human domination of nature (Pinchot, 1947; Leopold, 1948). Neither of these ideologies advanced the idea that entire ecological systems were at risk as a consequence of human activities until Rachel Carson proposed this theory in 1962. Evernden (1982) argues that Carson popularized the idea that "environment" was the endangered entity, and that this conceptual shift, combined with other social forces, catalyzed the North American environmental movement beginning approximately in 1970. (Marsh, 1965; Goldsmith, 1972; Meadows et al, 1972; Carson, 1962; O'Riordan, 1981)

Environmentalism holds, among other positions, that components of the natural environment, if not entire ecosystems and perhaps the entire biosphere, as well as human health, are all at risk as a direct consequence of human activities. A number of theorists argue that the root cause of systemic environmental degradation is a paradigm or world view based on a utilitarian view of nature as a storehouse of resources to be exploited in an unfettered quest of economic expansion and industrial progress. This is also termed the "anthropocentric" world view that justifies the domination of nature; linked closely to it is a belief of limitless economic growth and a denial of ecological constraints. By extension, this paradigm tends to dismiss reports of environmental, ecosystemic or biospheric risks as unfounded, alarmist or irrelevant. (Evernden, 1982; Livingston, 1981; Ehrenfeld, 1978; Sale, 1988; O'Riordan, 1981).

At the other end of the ideological spectrum is the "ecological" or "biocentric" paradigm, or "deep ecology" in which nature is viewed as having intrinsic value and the right to be protected from human domination and self-interest (Devall & Sessions, 1985). Deep ecology advocates a more holistic approach to achieving unity of all living systems within the biosphere (Naess, 1973). The ecological paradigm challenges, implicitly or explicitly, all the direct or indirect premises of the anthropocentric/utilitarian paradigm. While it critiques the latter quite convincingly, it fails to provide a practical alternative. At a practical level, the biocentric paradigm, in and of itself, provides no tools for reforming the anthropocentric/utilitarian world view. What is needed, beyond a powerful critique of human-environment interactions and development patterns, is a framework of purpose and action that embraces the essential values of environmentalism while still allowing the meeting of basic human needs and the pursuit of non-destructive development. In the early 1980's, "sustainable development" emerged as a proposed alternative (WCED, 1987; Redclift, 1987).

Sustainable development attempts to bridge the competing ideologies and paradigms by providing a framework for planning and management based on a goal of developing within ecosystemic and biospheric limits. Although definitions of sustainability vary widely, at a minimum it implies an ecological imperative of maintaining life support systems, protecting biodiversity and using resources efficiently. Beyond this, it also appears to imply an imperative for maintenance of social well-being; and an economic imperative of ensuring an adequate standard of living for people (Robinson & Van Bers, 1996). While the goal of sustainable development does not reconcile the competing environmental ideologies entirely, it provides a "moving target" and a focus of debate. At an ideological level, most conceptions of sustainable development challenge the premise of absolute utilitarianism and expansionism, and argue explicitly that past and current patterns of development exceed ecological limits. (WCED, 1987; Worldwatch Institute, 1984-1994; Daly & Cobb, 1989; IIED/WRI 1989; IUCN/WCED/WWF 1990; Brown et al, 1994; Clark & Munn, 1986; Robinson & Van Bers, 1996; MacNeill et al, 1991; Meadows et al, 1992; Munro & Holdgate, 1991)

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Sustainable development is chosen as the underlying ideology of this thesis since it provides a sufficient critique of the human-ecological interface and provides a framework consisting of principles that can be applied to development planning, assessment and management. Furthermore, more recent conceptions of sustainable development have made an explicit link with the goal of "equity" - they argue that one cannot be achieved without the other, and that the latter is a pre-condition of the former (Munro & Holdgate, 1991; Jacobs & Munro, 1987). This thesis is thus based on the assumption that sustainable and equitable development are important goals and important frameworks for research.

#### 1.2.2 Need for more sustainable and equitable forms of development

The need for more environmentally sustainable and socially equitable forms and patterns of development has been argued widely. Researchers have assembled a compelling body of evidence suggesting that current patterns of human activity will result in accelerated depletion of natural



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resources, widespread pollution, habitat loss, disrupted ecosystems and possibly irreversible damage to the biosphere's life-support systems (Bird & Rapport, 1986; Worldwatch Institute, 1984-1994). Sustainable development is a popular, albeit somewhat nebulous ethos and concept. Global strategies for environmental conservation and sustainable living have been broadly endorsed (WCED, 1987; UNEP et al, 1991). Environmental research initiatives, action plans and programmes based upon evolving principles of sustainable development are now common internationally.

The need for new forms and approaches to development has thus been established. The authors of *Caring for the Earth* (Munro & Holdgate, 1991) claim that:

"Most development fails because it meets human needs incompletely and often destroys or degrades its resource base. We need development that is both people-centred, concentrating on improving the human condition, and conservation-based, maintaining the variety and productivity of nature." (p. 8)

As discussed above, the general need for more sustainable and equitable patterns of development is a central premise and assumption of this thesis.

#### 1.2.3 Processes, forums and instruments for new development

Although alternative development approaches and models are advocated widely, there is still little consensus as to what forms the new approaches should assume, and through what means and processes they will be brought about. Much work remains to be done in designing and utilizing processes to facilitate the transition to more sustainable forms of development. The task of taking the principles of sustainability and equity identified in *Our Common Future* (WCED, 1987) and other frameworks and putting them into practice in the absence of viable tools, instruments, resources and models is virtually impossible for individuals and societies. A related challenge is to identify the institutions and processes for designing and implementing the new forms of development at local, regional, national and international levels. In this thesis one such forum and process - environmental assessment - is examined broadly in terms of



its ability to contribute to more sustainable and equitable development, and more specifically in terms of its contribution to a related goal - viable interdependence. Both concepts are discussed and defined in Chapter Two.

#### 1.2.4 Stakeholder-based planning and partnership

Along with the popular perception that more sustainable forms of development are needed, a related ethos or paradigm based on *equity* is emerging (e.g. Jacobs & Munro, 1987; Gardner & Roseland, 1989; Norgaard, 1992; Robinson & Van Bers, 1996). The equity ethos includes an emphasis on partnerships and joint planning; recognition of the legitimate role of stakeholders in decision-making; and the use of conflict resolution processes. All are discussed and defined in Chapter Two.

In the general case study area for this thesis - the Canadian Arctic and sub-Arctic - experimentation with stakeholder consultation has been notable since the days of the Berger Inquiry for the proposed Mackenzie Valley Pipeline (Canadian Arctic Resources Committee, 1984; Nesbitt, 1989; Richardson, 1989). The push for a stakeholder-based development planning approach originated in a context of more or less polarized interests - developers in conflict with disempowered native groups and environmentalists - in which relatively little productive dialogue about appropriate development was taking place. The negotiation of aboriginal land claims and the institutionalization of processes such as environmental assessment and land use planning in the north, along with their provisions for public participation, helped advance somewhat the practice of stakeholder-based planning (CARC, 1984). A general progression toward stakeholder-based planning can be noted, beginning with demands and eventual concessions for greater participation and consultation to more recent demands for actual joint planning, partnership and cooperative management of resources.

The evolution from the imposition of projects by single-interest actors to a more pluralistic approach can be likened to Arnstein's ladder of citizen participation. (Arnstein 1969, p. 217) In practice, from approximately the time of the Berger Inquiry (the 1970's) to present, an evolution may be



noted, beginning with relatively closed, elite approaches to decision-making and culminating with the present, more open and cooperative trends. The trend has not been perfectly linear, however: examples of relatively participatory planning or EA exercises took place in the late 1970's and early 1980's (Lancaster Sound; Beaufort Sea EARP), whereas not all recent processes reflect progress. As Keith (1991) puts it:

"A recurring problem in Canada has been our collective incapacity to break out of rigid, fragmented and specialized organizational sets, and instead create interest-based and social learning-based, multi-actor systems for environmental analysis and problem-solving." (p. 20)

#### 1.2.5 Northern development generated from the south

Fundamental tensions between developers and their opponents surface particularly when large-scale projects that originate in the south are proposed for the north. Substantive issues such as the ecological sustainability, timing, scale, and distribution of risks, benefits and impacts of such projects are raised frequently, and "process" issues such as opportunities for public input are equally worrisome to many. In practice, the overall pattern of large-scale development simply being imposed by southern-based interests still predominates, with limited input from local residents. The stakeholder-based approach to development planning has not become common practice; it tends to be applied only in cases where sufficient public pressure is brought to bear or where it is required under legislative requirements. Moreover, while significant lessons have been gained from certain high-profile planning exercises in the north, these lessons may be ignored or quickly forgotten when a new project is proposed. (Keith, 1991; Keith & Simon, in Jacobs & Munro, 1987) In a study of facility siting in southern Canada that is analogous to the northern situation, Armour concluded that "imposition was the inevitable outcome of consultations on the siting of large-scale facilities." (Armour, 1988)

Analysis therefore suggests a continuing gap between the new principles of sustainable and equitable development and the ongoing development practices in the north. The "new ethos" of joint planning, and even its antecedent, stakeholder-based planning, have yet to take firm root in



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Canada's north, particularly when large-scale projects are more or less imposed from the south.

#### 1.2.6 Viable north-south interdependence

Many large natural resource development projects in Canada are transboundary in nature and occur in an intercultural context, involving a plurality of interests. In Canada's north, the challenge of sustainable development is tied directly to the prospect of contending with projects that originate in southern regions. This challenge - elaborated in Chapter Two has been described as "viable interdependence", or ensuring that development cutting across regions and cultures remains equitable and sustainable (Mulvihill & Jacobs, 1991). Frameworks such as Caring for the Earth (1990) advocate community-based forums for sustainable development strategy-making and implementation; these would appear to be particularly relevant to small, remote northern communities. While this basic approach is valid, it does not take into account the reality that many major development projects are conceived outside the realm of the community, beyond the region and even outside the culture - thus potentially undermining local efforts in development planning. This syndrome has often been reinforced, rather than challenged, by environmental assessment processes which are restricted to project-specific technical issues, offering no opportunity for the consideration of community development values and priorities.

Operating in an inter-regional, intercultural context of multiple agendas and values may offer possibilities for creative joint development planning. Unfortunately, developers and decision-makers have seldom responded to the challenge adequately in Canada's north. The range of policy instruments and processes of potential use in intercultural planning in support of viable interdependence is limited. By default, environmental assessment, the approval process through which many projects must pass, has sometimes been burdened by expectations that it will fulfill a planning function. This expectation is unrealistic, however, since EA typically has limited powers, frequently operates amidst significant constraints, and was



not designed explicitly as a planning process. EA's origins, nature, and potential are discussed in detail in Chapter Two.

#### 1.2.7 A role for environmental assessment

Although it seems by default incumbent upon environmental assessment processes reviewing development proposals in Canada's north to address the challenge of viable interdependence, it is unclear whether they have either the power or the ability to do so in practice. Sadler argues this point, noting: "...the long-standing dilemma of northern decision-making, whereby impact-related concerns about specific projects become recast into fundamental and competing visions of the future of the region." (Sadler, 1990, p. 30) A central premise of this thesis is that EA processes can and should stretch their mandates to promote viable interdependence, and that in order to do so they must be applied adaptively and creatively. The experience of the Kativik Environmental Quality Commission (KEQC) to date provides an example of adaptive approaches to EA in a northern setting, supported by well-designed institutional and organizational arrangements arising from the James Bay and Northern Quebec Agreement. In the 1980's, the KEQC managed to apply its mandate creatively within several EA processes and managed to foster the internalization of environmental considerations among project proponents operating in the Inuit region (Mulvihill & Keith, 1989).

There is a basis for expecting environmental assessment processes to reshape development and to contribute to sustainability. (Jacobs & Sadler, 1990) At the same time, it is argued that few definitive conclusions may be drawn regarding the experience of environmental assessment in Canada, and particularly in northern Canada. This is so for several reasons, including inconsistency and infrequency of application, variability of use, relatively little experience overall, lack of precedents, brief experience in joint reviews, and regional differences. Virtually every new environmental assessment and review constitutes a precedent of sorts; certainly this is so in the case of mega-projects involving diverse interest groups. It is therefore difficult to draw many conclusions as yet about the performance of EA processes with respect to viable interdependence. It is reasonable, however, on the basis of the potential of EA, to hypothesize that it may make a substantial contribution, particularly if the process is applied creatively and if those managing and participating in the process are innovative. Notably, while conducting a post-hoc evaluation of the Beaufort Sea Environmental Review Process, Sadler predicted hopefully that EA would soon be accompanied by policy and planning frameworks:

"This may well have been the last replay of EARP as a substitute for, rather than *supportive* of, the integrated policy planning and management processes which are necessary to reconcile environment, peoples, and development in the Canadian North." (Sadler, 1990, p. 31)

Nevertheless, several years after Sadler wrote these words, EA continues to function independently from planning processes in the north, although recent land claim settlements have attempted to design promising, integrated assessment and planning regimes.

## 1.2.8 Gariépy's analysis of BAPE/ Hydro-Quebec cases

Gariépy (1991) has made a number of observations about environmental assessment and in particular the effects of public participation in environmental assessment (Bureau d'audiences publiques sur l'environnement, or BAPE) processes for Hydro-Québec projects, based on his analysis of several such exercises. He argues:

- "From the point of view of content, the public hearings process is basically one of reaction to the components of the initiator's proposal", not a forum for the "general planning and design of local communities", and provides little opportunity for intervenors to "speak out against the overall pattern of development in Quebec". p. 364
- the only departures from the "predefined elements" of the hearings concerned mitigative measures and complaints about the process or the role of institutional actors: "Demands refer mainly to siting and mitigation, with little overflow upstream to project justification and issues of policy and planning." p. 364
- Hydro-Québec dominated the process by setting much of the agenda and tone of the hearings
- fundamental questions were raised but not debated substantially





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- public participation was restricted to the later stages of the BAPE process (formal scoping did not take place)
- the process is essentially a "rationality ritual"
- the process was somewhat valuable in transforming technological issues into social choices
- "There is evidence at several levels that public EIA hearings fulfilled a validation function and became an important tool for greater accountability." p. 367
- much as Rudig (1981) concluded in another study,

"...the environmental movement had to make as much use as possible of public participatory procedures, but that the debate had to spill over into another forum for their intervention to have some effectiveness in the face of the structural constraints." (p. 372)

• "Finally, this study revealed little evidence of the type of learning we assumed would take place as a result of the EIA process."

Gariépy's conclusions amount to a fairly severe critique of the BAPE process for Hydro-Québec projects. His conclusions are shared by many other researchers, however; the history of environmental assessment in Canada, and particularly in the north, is characterized by non-creative, non-adaptive exercises. Scoping has been used sparingly and far from optimally, and guidelines for environmental impact statements have often been weak and superficial.

# 1.2.9 Summary

To summarize the arguments made to this point, there is an emerging consensus that more sustainable and equitable approaches to development are needed, although it is less clear through what processes they will come about. It is argued that these processes must address an emerging ethos known variously as joint planning/pluralism/partnership, based on the principle of equity. Attempts to operationalize these values have generally met with limited success, partly because few if any institutions have adopted them, and few development planning and approval processes have been created with them in mind.



In Canada's north some modest success has been achieved in establishing the practice of stakeholder-based planning, but there is still relatively little evidence of real partnership or equity in development processes. The pattern of large-scale, ecologically unsound, socially inequitable and culturally inappropriate development imposed from the south must be replaced with more viable interdependence between north and south. Environmental assessment, if used creatively and adaptively, could be a key process in the pursuit of more viable interdependence.

The major questions forming the basis of this thesis are thus whether or not environmental assessment may be a valuable instrument and process in the pursuit of viable interdependence, and if so, under what conditions. Using the scoping process and the guidelines for the Great Whale project as primary sources of data in the case study, an experimental analytical framework is developed and used.



#### 1.3 GOAL OF THE THESIS

The goal of this thesis is to develop, through a case study, a better understanding of the potential of EA and in particular the scoping process to contribute to viable interdependence in intercultural contexts.

The research process includes:

• Description of the case study: the Great Whale scoping process The Great Whale scoping process is described. The discussion includes history, context, detailed description of the public hearings and EIS guidelines preparation stages, and focus on particular elements of the process as they relate to the conceptual framework, analysis and evaluation undertaken in the thesis.

# • Development of a conceptual and evaluative framework for EA and scoping in intercultural settings.

The conceptual framework explores the interrelation of viable interdependence, EA and scoping. The challenge of EA and scoping in intercultural settings is elaborated. The potential contribution of EA and scoping to viable interdependence is explored. The conceptual framework establishes principles from which specific criteria are derived for the evaluative framework.

The evaluative framework proposes experimental evaluation procedures and criteria. The evaluative criteria are divided into three interrelated categories as a means to link the case study to broader outcomes: substantive; process-oriented (general); and process-oriented (specific). The latter comprise the set of specific criteria applied directly to the Great Whale scoping process.

• Experimental application of the framework to the case study The Great Whale scoping process is described and analyzed, with its main data consisting of public hearings transcripts and environmental impact statement guidelines issued to the proponent. Particular attention is paid to



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those elements of the case study that represent departures from conventional practice. The process that was used to distill the scoping hearings and transcripts into guidelines is analyzed. Links between the scoping hearings and the EIS guidelines are analyzed.

The case study is analyzed with respect to the specific process-oriented criteria discussed above. The analysis consists of several sub-analyses, which in turn form the basis of a more global evaluation.

A related objective is to identify innovative elements or departures from conventional practice which may contribute to process development for EA.

• Drawing of conclusions from the case study sub-analyses. Potential links and pathways among process-oriented and substantive criteria for viable interdependence are explored. Lessons and significance of the case study in terms of process development for EA in relation to viable interdependence are drawn. On the basis of the thesis findings, conclusions are reached with respect to the potential role of EA in support of viable interdependence, and recommendations for future study are proposed.



#### 1.4 METHOD

#### 1.4.1 Overview of method used

The goal of the research is to explore, through a case study, the role of scoping and environmental assessment in an intercultural context in terms of their contribution to viable interdependence. A related objective is to determine the extent to which the scoping process for the Great Whale review contributed to process development for environmental assessment generally (i.e. new approaches that advance the practice or contribute to the expansion of EA). The method best suited to pursuing these goals and objectives consists of literature review; contextual field research; informal interviews; case study; direct participation in the case study; and evaluation of the case study against a proposed evaluative framework. An iterative or "systems" method of evaluation was used to create an appropriate analytical framework, and generate and analyze data. Thus the process was analyzed even as the method of analysis was devised iteratively. Surveys and other quantitative methods were ruled out as inappropriate due to the experimental nature of the evaluation. The proposed evaluative framework, rather than the evaluation itself, is intended to be the primary contribution of the thesis.

#### 1.4.2 Literature review

A general literature review was conducted, focusing on environmental assessment, planning and management, and sustainable development. The literature review was normative, inter-disciplinary and integrative in nature. The general research strategy was to review the current state of knowledge with respect to intercultural environmental planning, assessment and management in order to identify possible requirements for viable interdependence.

#### 1.4.3 Contextual field research

Contextual research concerning the Northern Quebec or Nunavik region was conducted through a series of field trips. The approach derived from ethnographic methods and involved gaining familiarity with the region, its communities, physical and human geography, cultural traditions, and current social issues. The objective was to gain an understanding of the context in which the Great Whale project was proposed and its review process took place. The method employed over several years and trips involved observation and non-structured interviews with a diversity of actors and stakeholders (these are documented in Appendix B). Combined with literature review, the contextual research contributed to the gathering of essential elements of the conceptual framework and evaluative criteria.

#### 1.4.4 Non-structured interviews

Informal interviews were conducted over several years with key actors, theorists and practitioners of potential relevance to the research. These included community leaders and officials, environmental assessment panelists, scientists with specializations applicable to impact assessment, and a range of people with direct and indirect experience in observing the changing social, political, cultural, economic and environmental conditions of the region as a result of recent, southern-inspired development initiatives such as the La Grande hydroelectric project. Questions raised in the interviews varied but centered around the challenge of viable interdependence and the challenges involved in assessing and managing development impacts in northern regions. Names of interviewees are attached in Appendix B. The questions related to issues including the pace, timing and substance of development projects, changes in lifestyle, institutions, southern influences, and social and environmental problems.

#### 1.4.5 Evaluation methodology: general

The basic purpose of evaluation is to determine the effectiveness of a process or a product. A considerable body of new evaluation theory has been generated in the last quarter century, focusing on qualitative analysis

and providing an alternative to rigid cost-benefit evaluations. Much of this theory was reviewed with a view to situating the present approach within a continuum of qualitatively-oriented approaches. (Suchman, 1967; Denzin, 1983; Polkinghorn, 1983; Cook & Reichardt; Patton, 1980; McAllister, 1982)

The data gathered in the case study are primarily qualitative in nature. The analytical method was adapted to the exercise of evaluating an environmental assessment process with respect to a specific set of criteria. Other methodological theories drawn from with respect to the study of qualitative data include those of Lessard-Hébert et al, (1990); Denzin (1983); Polkinghorn (1983) and McAllister (1982). McAllister makes a number of relevant points with respect to qualitative analysis of environmental experience. The first is that the identification of the problem to be addressed involves important value judgments "...because it determines the particular interests that will be served by planning", (p. 5) and that "...designing or selecting an evaluation method, itself, requires an evaluation, necessitating the use of values to reach conclusions". (p. 10)

### 1.4.6 Experimental evaluations of EA processes

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There has been a range of evaluation approaches applied to environmental assessment over the past 20 years. The theory and practice of environmental assessment has evolved quickly within that time. It is therefore not surprising a CEARC research prospectus submitted that evaluation methodology for environmental assessment must be "...flexible and dynamic to cover the range of impact assessments faced by most jurisdictions." (CEARC, 1988, p. 4)

Spalding et al (1993) have described a typology of four approaches to evaluating environmental assessment. The four types include process evaluation, methodology evaluation, goal achievement evaluation and conceptual evaluation. *Process evaluation* "...focuses on administrative procedures or administrative control." Examples include work done by Bowden & Curtis (1988); the Canadian Environmental Advisory Committee (1988); Fenge & Smith (1988); and Marshall et al (1985). *Methodology evaluation* "...assesses the scientific integrity of EIA



methods." Examples include Beanlands & Duinker (1983, 1984); Ross (1987); or Whitney and Maclaren (1985). *Goal achievement evaluation* "...emphasizes outcomes or results which are attributable to EIA." A rare example of goal achievement evaluation is Hollick (1986). Finally, *conceptual evaluation* "...reviews EIA from philosophical or ideological perspectives". Examples include the work of Hill (1988); Marshall et al (1985); O'Riordan (1986); or Sadler (1986). (Spalding et al, p. 65)

The evaluation conducted in this thesis may be termed an experimental or modified goal-achievement evaluation, since it focuses on the possible effects of the scoping exercise. Spalding et al explain why goal-achievement evaluations of environmental assessment are rare:

"The rare use of this approach likely reflects the undefined or poorly stated goals of many EIA statutes and policies. Its rarity may be further explained by the difficulty of isolating the effects of EIA so that goal attainment can be reliably attributed to an EIA process." (Spalding et al, p. 68)

The difficulties identified by Spalding et al are acknowledged: the goals of the Great Whale environmental assessment and review process, beyond the identification of impacts, are unclear, as are the implicit and explicit goals of the statutes and policies underpinning the joint panels. The strict legal mandates of the review reveal little with regard to the pursuit of sustainable development or viable interdependence, although this is currently changing with the advent of new EA legislation federally and provincially. The recently-introduced British Columbia Environmental Assessment Act, for example, makes explicit reference to sustainable development in its preamble. The pursuit of sustainable development and various other purposes may be attributed to the environmental assessment process by stakeholders. In this sense the lack of clarity with respect to the goals of environmental assessment is a universal problem of a political nature - the goals, in reality, are "up for grabs" to a large extent and are determined as the process unfolds and agendas are manifested. As for the effects of the scoping process, they might be reliably attributed only if a comprehensive ex-post (post-project) evaluation were conducted sometime after the panel recommendations and decisions are rendered - and even

then, such an evaluation would have to focus on the entire review process. In this thesis, however, some of the possible effects of the scoping process are evaluated against a defined set of criteria - a more limited and experimental exercise in evaluation.

Evaluations of this experimental nature are needed in order to advance the theory and practice of environmental assessment. Experimental evaluations of EA, while uncommon, have formed the basis of other research. Gardner (1989) devised a method for comparing EA frameworks on the basis of sustainable development criteria. The author, in previous research (Mulvihill & Keith, 1989; Mulvihill, 1990), evaluated selected northern environmental assessment institutions on the basis of adaptiveness. There appears to be no evaluation to date, however, which has dealt explicitly with the challenge of evaluating the effectiveness of the process in intercultural settings.

# 1.4.7 The Beaufort Sea evaluation

Sadler's evaluation of the Beaufort Sea Environmental Assessment and Review Process (BEARP) was selected as a methodological model since it is a rare example of a comprehensive evaluation of EA. Moreover, BEARP, as a review process concerning large scale development in a northern intercultural context, was broadly similar to Great Whale. In this section Sadler's approach is described and compared to the adapted version ultimately chosen for the present evaluation.

Sadler's evaluation was ground-breaking in a number of regards. He demonstrated that an eclectic body of theory and qualitative data could be assembled to evaluate environmental assessment in a meaningful way.

Sadler makes a number of important points, distinctions, and definitions in his report:

- a "multiple perspective" approach to evaluation, one that makes an attempt to "...identify and compare a range of viewpoints.." is appropriate for a comprehensive evaluation (p. 3)
- his evaluation was not neutral or free of personal judgment (p. 3)







- evaluation can be viewed as "...an act of policy judgment that can be bolstered through systematic analysis". (p. 3)
- both BEARP itself and his evaluation were experimental
- "The end products of evaluation are subjective, policy-oriented judgments about the effectiveness of EIA process, practices, and procedures. The notion of audit, by contrast, implies a reasonable objective verification of compliance with pre-set standards, based on the examination of a system of records." (p. 7)
- Three basic strategies for evaluation are summative, formative, and transactive.

Summative evaluation is "...product-oriented; it is concerned with results - what was achieved by the public review. The objective is to identify the impact of impact assessment on government decisionmaking for the purpose of demonstrating and promoting 'service' delivery'. This approach is based on the implicit or explicit assumption that such effects can be objectively measured and then compared to pre-established goals. It is derived from classical research on programme evaluation, in which there is a reliance on mechanistic analogies, quantitative data, and statistical analysis. Formative *evaluation* is process-oriented; it is concerned with operational performance - how things were done. The emphasis is on identifying the successes and shortfalls of the procedures adopted, with a view to making future improvements. This approach incorporates the recognition that the goals and results of such processes are fluid, vary with perception, and are difficult to measure with any certainty. It lends itself to a more subjective, interactive approach that utilizes qualitative data from participant responses. A hybrid approach....*transactive evaluation*....is concerned with the overall effectiveness of the review process. It is aimed at gaining an understanding of why certain aspects worked or did not work as expected, and broadly corresponds to what is termed process analysis in programme evaluation (Deutscher 1976; MacNiven 1980). This approach considers results in terms of processes (or vice-versa) and takes into account the context in which these operate. A dynamic rather than a static perspective is gained, which highlights the factors that influence the activity being evaluated. With transactive methods, elements of summative and formative analysis are recombined. This approach, for example, recognizes that goals are often vague, fluctuate, and resist objectification. At the same time, a systematic attempt is made to grapple with the problems of how to measure and organize 'soft' or qualitative data." (pp. 12-13)

Sadler chose the transactive method for his evaluation of BEARP and based his research on observation during the review process, a questionnaire directed at participants, a workshop involving key participants and "monitoring the responses of industry, government, and communities to the Panel report." (p. 19). He chose to take an empirical approach instead of a normative one conducted against a "utopian framework or one established by someone who 'knows' how the process should work..". (p. 19) The experimental evaluation performed in this thesis was derives partly from Sadler's evaluation of the Beaufort Sea Environmental Assessment and Review Process (BEARP) (Sadler, 1990). While the approach taken differs significantly from Sadler's comprehensive evaluation of BEARP, the latter provides a methodological context within which the present, more limited evaluation was conceived.

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The approach taken in the present research was formative, with elements of transactive. Unlike Sadler's empirical approach, it is normative in the sense that the evaluation is conducted against a framework that proposes some elements of how the process should work. In brief, Sadler's approach is appropriate for a comprehensive evaluation, while the present approach is germane to a more limited, strategic evaluation. Sadler's approach is therefore adapted to evaluating certain aspects of the scoping phase of Great Whale. He sought to evaluate the "imprint left" by BEARP; the present research seeks to evaluate the imprint likely left by the scoping/guideline issuance phase of the review on the prospect of viable interdependence.

Sadler employed a popular evaluative framework based on the "three r's: rigorous analysis, responsive consultation, and responsible administration". (p. 9) To this basic framework he added the additional "emerging" criteria of "adaptive" and "integrative" approaches to environmental assessment. For this thesis research an evaluative framework was constructed, and is described in section 2.5. In contrast to Sadler's comprehensive evaluation, the objectives were much more limited and focused on key evaluative criteria.

#### 1.4.8 Summary

The general purpose of the study is to analyze the Great Whale scoping process in relation to the prospect of viable interdependence. The links between the two, and the evaluation procedures are discussed in section 2.5. The selection of methods is in large part dictated by the experimental nature of the evaluation, in which building blocks toward viable interdependence are tested. The building blocks include substantive criteria derived from literature; general process criteria derived from literature and experimental or are not absolute, nor exclusive; they are considered tentative and as such appropriate for testing purposes. The evaluative framework provides a way of analyzing and evaluating a scoping process and includes indicators of EA/scoping processes that are supportive of viable interdependence.

In his comprehensive evaluation of the BEARP process, Sadler conducted participant surveys (for which a low response was received) in order to develop and validate his evaluative judgments. A participant questionnaire was not considered appropriate for this thesis since the evaluation is secondary to the development of the evaluative framework. The latter is intended for a broader audience than the former. In the present evaluation, feedback regarding key concepts and criteria was solicited from theorists and practitioners over several years, and published in journals prior to and subsequent to the evaluation (Mulvihill & Keith, 1989; Mulvihill & Jacobs, 1991; Jacobs, Mulvihill & Sadler, 1993; and Jacobs & Mulvihill, 1995).

In summary, this section has described the general methodological nature of the evaluation in this thesis. The Evaluative Framework in section 2.5 builds upon this discussion by proposing the specific criteria and procedures.

# CHAPTER 2 CONCEPTUAL FRAMEWORK

# 2.1 INTRODUCTION

In this chapter the conceptual framework is presented. The conceptual framework consists of four sections:

- •2.2 Viable interdependence
- •2.3 Environmental assessment
- •2.4 Scoping

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•2.5 Evaluative framework

The first three sections, addressing viable interdependence, environmental assessment, and scoping, establish the conceptual underpinnings of the thesis and form the basis of the evaluative framework which follows. In section 2.2 viable interdependence is defined and its essential criteria are proposed. The discussion of viable interdependence includes an overview of past and present north-south development patterns in Canada; potential contributions to the theory and practice from land claims and other initiatives; and links to the related concepts of sustainable and equitable development. In section 2.3 environmental assessment (EA) is discussed in terms of its nature, history, limits, and potential. The actual and potential interface between viable interdependence and EA is explored. Section 2.4 discusses scoping, including its nature, its diverse approaches and its potential to support viable interdependence. The challenges of scoping in an intercultural context are discussed and the essential elements of a scoping process in support of viable interdependence are proposed.

Section 2.5 presents the evaluative framework – a distillation of criteria which are drawn from the preceding three sections. These elements form the evaluative framework of the thesis, and provide the criteria with which the case study is evaluated. The section begins with a review of selected evaluations of EA processes and their implications for the present one. The evaluative framework is elaborated in terms of interrelated process-



oriented and substantive criteria which, taken together, are proposed as "stepping stones" toward viable interdependence through scoping. The evaluative framework concludes with a description of the analytical and evaluative tools and procedures used in Chapter 4.

#### 2.2 VIABLE INTERDEPENDENCE

# 2.2.1 Definition

Viable interdependence is proposed as a normative development relationship occurring across cultures, and normally involving urban and remote regions (often north-south), featuring forms and patterns of development that address evolving and overlapping standards of sustainability and equity. Viable interdependence is viewed as a subset or offshoot of sustainable development. The basic premise underlying the concept of viable interdependence is that communities and regions must be empowered to substantially shape their economic, cultural and environmental destinies. As such, viable interdependence has much in common with "self reliance". It diverges from the latter by recognizing explicitly the reality and inevitability of exogenous development forces acting upon a community.

In previous work the author proposed conditions for viable interdependence: self-reliance; regional/aboriginal self-determination; decolonization; viability and integrity of ecosystems; equitable distribution of risks and benefits; culturally appropriate political systems; and culturally appropriate institutions (Mulvihill & Jacobs, 1991). In more recent work the author expanded on the conditions: negotiated rather than imposed development; *concertation* or shared decision-making; and cooperative, horizontal, inclusive decision-making processes (Jacobs & Mulvihill, 1995). These principles and conditions are reflected in the evaluative framework proposed later in this section. The higher-level principles form the basis of the substantive and general process-oriented criteria, and more specific process-oriented criteria are proposed as evaluative tools.

#### 2.2.2 Historical context

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An understanding of "viable interdependence" must begin with history. The history of the Canadian Arctic is in constant revision as the phenomenon of colonization and its effects is placed into a post-modern framework. Nevertheless, the most important historical force or pattern in this regard has been and remains the colonization of the aboriginal peoples of the Arctic by European explorers, settlers and developers. Arctic historians (e.g. Lopez, 1986; Jull, 1991; Brody, 1975) have described processes of exploration, colonization, development and conflict that began several centuries ago with the first European explorers. The significance for the present thesis is that the process of colonization created the conditions of dependence for what may now be characterized as non-viable interdependence. It should be recognized that not all colonial relationships were abusive or exploitive, and that different standards of equity may have prevailed at the time, if, indeed, the notion of equity had much currency at all. Finally, the roots of non-viable interdependence were and are by no means exclusive to the Arctic regions.

Even with the cumulative effects of exploration and colonization, it appears that most Canadian Arctic peoples and communities practiced a predominantly traditional lifestyle based on wildlife harvesting until approximately the post-World War Two era. The Federal Government's northern policy until that time has been characterized as "benign neglect"; in effect, the government only became an active and passive developer on a large scale later. (CARC, 1984) Beginning in the 1950's governments and private non-renewable resource developers began developing the north according to a southern vision of infrastructure, economies of scale, and unfettered control with minimal mitigation or compensation. This vision remained dominant until the late 1970's and early 1980's, when formal processes - such as the Berger Inquiry and the James Bay and Northern Quebec Agreement- were created in an attempt to redress the conflicts and perceived inequities.

In practice, the vastness and physical remoteness of the Arctic, along with market uncertainties, technological limitations and other factors, has

combined to limit the scale and pace of development. Some regions such as the MacKenzie Valley of the Western Arctic have been subject to relatively intense development, while others such as the Eastern and Central Arctic (now Nunavut) have been impacted somewhat less. The nature of the large scale development - oil and gas, mining, hydroelectric - also varies with the region. There is no doubt, however, that the inexorable process of southern-inspired development has touched every Arctic community, no matter how remote or through whichever combination of pressures from the south and beyond in the global village.

While cumulative biophysical impacts of development across the Arctic may be very significant, the most devastating impacts have been social. Most Arctic communities have changed drastically in the past two or three decades, and the prevalence of social problems has increased. It is to the credit of Arctic community leaders that they have been able to mount efforts to counter-balance the negative impacts of development and pursue aboriginal self-determination through processes such as land claim negotiations, when they have seen their communities transformed in such a short time. If Arctic communities are able to pursue the goals of sustainable development or viable interdependence, it is due in large measure to their adaptiveness and resilience. While the colonial and post-World War Two social history of the Arctic is in many ways brutal, the future is far from hopeless, as Jull and others have argued (Jull, 1991). The term "viable interdependence" attempts to capture the challenge facing Canada and other circumpolar nations as they continue to redefine northsouth relations.

#### 2.2.3 Patterns of non-viable interdependence

As in the case of sustainable development, a framework for viable interdependence should flow from principles and from a problem statement (unsustainable development patterns, patterns of non-viable interdependence). Several themes emerge from the literature: disempowerment; the undermining of local sustainability initiatives by outside development pressures; exclusion from decision-making processes; the loss of self-determination; culturally inappropriate development; and the inequitable distribution of risks and benefits of development. Many aboriginal people in Arctic communities continue to feel that their development relationship with southern interests is unsustainable and inequitable (e.g. Keith and Simon, 1987).

To cite one example from a body of literature which points to non-viable interdependence, Keith and Simon (1987) describe a pattern in which local peoples have been excluded from decision making processes in the northern circumpolar world:

"During the past 15 years, much of the circumpolar world has experienced bitter conflicts between northern peoples and southern national governments over the development of renewable and non renewable resources." (p. 211)

They continue:

"The experiences of northern peoples in all these regions are similar enough to establish a regional pattern of conflict over development and conservation and to invite hypotheses about which development and conservation strategies work in the circumpolar world and which do not." (p. 212)

Keith and Simon elaborate:

" An alternative to large-scale, quickly constructed projects is those undertakings which are similar in scale, are phased over a longer period of time, offer fewer apparent risks and provide greater social learning."......."Key characteristics are: risk associated with development; duration of benefits; distribution of benefits and costs; and level of conflict." (p. 213)

Keith & Simon also argue that the form of decision-making processes that lead to development are often as important as the kinds of development that are proposed. For this reason, local peoples may reject any proposal, no matter how beneficial it may be, if they feel that their opportunities for input have been inadequate:

"However, as the larger 'southern' societies moved to address the environmental concerns of northerners by proposing various mitigative



measures, policies, and conservation initiatives, it became increasingly apparent that the northerner's concerns were more far-reaching. They objected to their exclusion from the decision-making processes that guided industrial development projects, as well as entire development strategies. In many cases, northerners were no more receptive to southern instigated conservation initiatives and processes than to the development projects that spawned them." (p. 217)

Keith & Simon conclude that what northerners were seeking went well beyond a voice in development design; in effect they were seeking: "...the sustainable utilisation of all resources to the advantage of their communities." (p. 218)......"Circumpolar peoples are trying to build a sustainable future on an uncertain and variable resource base. They will require innovative technologies, training, and some integration of their economies with southern economies to succeed." They add: "In addition to 'equitable' and 'sustainable' development, it is important to promote development that is 'culturally-appropriate' to northern regions." (p. 223)

The writing of Keith and Simon typifies a body of literature which points to patterns of non-viable interdependence. Others have elaborated on the theme, and it has been a constant argument in literature generated by northern native groups as well as northern-oriented researchers and advocacy groups (Jull, 1991; Keith, 1991; CARC, 1984, 1991; Fenge 1989, 1991; Barker & Soyez, 1994; Arragutainaq & Fleming, 1991).

#### 2.2.4 The inevitability of interdependence

The need for development that reflects viable interdependence results from an explicit recognition of the reality of intercultural and inter-regional development. Most conceptions of sustainable development assume a national, regional or local context in which self-determination is given, or at least in which equitable political arrangements are in place to balance national, regional and local interests. A limitation of most sustainable development frameworks lies in the assumption of a relatively selfdetermining community or region with substantial power to shape development patterns indigenously. A key element of the concept of viable interdependence is that it departs from the latter frameworks by explicitly recognizing and planning for the eventuality of exogenous development pressures. Whether development is initiated locally or not may be highly significant, since the distribution of benefits and impacts may be quite different depending on the locus of development. The accent is thus on "interdependence", which, in the absence of diligent efforts, may tend to be non-viable from the northern perspective. This thesis is therefore based on the premise that sustainable development frameworks alone are insufficient as a means of transforming development patterns. While the latter may have great potential to transform local development, they do not explicitly address exogenous development proposals, and nor do they necessarily exert any influence on EA processes. The concept of viable interdependence is thus a missing link in northern sustainability strategies.

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Few communities can now aspire to absolute self-reliance, and few would argue that isolation or protection from exogenous forces is a possible or even desirable course of action for Arctic communities. As Keith & Simon (1987) put it:

"The modern renewable economy no longer exists in isolation: it is becoming integrated in broader national economies from which it derives support payments or wage employment." (p. 219)

Keith & Simon argue that this trend also extends to policy-making:

"With regard to Arctic policy-making and international agreements, a growing number of issues affecting Inuit rights and interests are increasingly being regulated at the international level. Examples include ocean dumping, acid rain, arms control, fish, whales, migratory birds, endangered species and resource development in marine areas. In these and other instances, national or local initiatives alone are not adequate to protect Inuit communities and our northern regions." (p. 225)

Manuel Castells goes further, pointing out that flows of capital and information now connect virtually every corner of the planet (Castells, 1992). In an increasingly global economy few communities have retained self-reliance. R. Robertson (1992) defines globalization "as a concept

(referring) both to the compression of the world and the intensification of consciousness of the world as a whole".

Vaclav Havel (1995) reflects on globalization, parallelism and pluralism:

"Periods of history when values undergo a fundamental shift are certainly not unprecedented. This happened in the Hellenistic period, when from the ruins of the classical world the Middle Ages were gradually born. It happened during the Renaissance, which opened the way to the modern era. The distinguishing features of such transitional periods are a mixing and blending of cultures, and a plurality or parallelism of intellectual and spiritual worlds. These are periods when all consistent value systems collapse, when cultures distant in time and space are discovered or rediscovered. New meaning is gradually born from the encounter, or the intersection, of many different elements." (Havel, 1995, p. 53)

From a northern perspective, contextual turbulence continues to prevail and is experienced in terms of shifting values, frequently overwhelming exogenous cultural influences, and "plurality or parallelism of intellectual and spiritual worlds". Isolated self-reliance is increasingly impossible. In terms of development, the new challenge is to maintain a regionally appropriate balance of indigenous and exogenous projects, and to reverse patterns of imposed development. In other words, the salient challenge is to maintain cultural and ecological integrity amidst intense forces of change.

# 2.2.5 Contributions to viable interdependence from sustainability literature

Although there is as yet no literature which makes direct reference to "viable interdependence" apart from the author's (Mulvihill & Jacobs, 1991), there is considerable literature on several interrelated subjects from which the conceptual underpinnings may be drawn. This includes but is not limited to general literature on sustainable development; conservation strategies; Arctic/circumpolar development strategies; aboriginal selfdetermination strategies; and land claim literature. Indeed, there is a vast and growing body of environmental literature, much of which is potentially relevant to viable interdependence.



There are numerous definitions of sustainable development. The Brundtland Commission defined sustainable development as:

"...development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).

Sustainable development involves:

"...a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with these needs." (WCED, 1987)

It should be noted that the Brundtland Commission did not invent the concept of sustainable development; it popularized the term and built from the work of numerous authors and processes, among them the World Conservation Strategy (1980). The Commission explored the environment/economy interrelationship more deeply and comprehensively than previous work, thus setting the stage for subsequent efforts that continue to unfold. The Commission stressed the growing reality of global economic and ecological interdependence, and argued that international equity is a pre-condition of sustainable development. The latter point has also been made by numerous authors.

#### 2.2.6 Sustainable development criteria

According to most literature on the subject, it is generally agreed that sustainable development requires the maintenance of ecosystems and ecological processes essential for the functioning of the biosphere, the preservation of ecological diversity, and attention to the principle of optimum sustainable yield in the use of living natural resources and ecosystems. Beyond these principles, sustainable development may be viewed as a work-in-progress, an iterative process more than a set plan, and an ethical principle that is both normative and pragmatic.

The WCED addressed explicitly the challenge of sustainable development with respect to aboriginal peoples, noting:

"With the gradual advance of organized development into remote regions, these (aboriginal) groups are becoming less isolated. Many live in areas rich in valuable natural resources that planners and 'developers' want to exploit, and this exploitation disrupts the local environment so as to endanger traditional ways of life. The legal and institutional changes that accompany organized development add to such pressure.

Growing interaction with the larger world is increasing the vulnerability of these groups, since they are often left out of the processes of economic development. Social discrimination, cultural barriers, and the exclusion of these people from national political processes makes these groups vulnerable and subject to exploitation. Many groups become dispossessed and marginalized, and their traditional practices disappear. They become the victims of what could be described as cultural extinction." (WCED, 1987, 114-116)

There is now relatively little, and diminishing, value in proposing new definitions of sustainable development. There is a need, however, to develop regionally significant strategies based on the broad principles of sustainable development. Keith (1991) identifies five principles of sustainability for a Canadian Arctic environmental strategy: "maintain and enhance ecosystem integrity"; "maintain subsistence cultures"; "support the sustainable use of renewable resources"; "promote the development of knowledge, its dissemination and its use in decision-making", and "develop environmentally sensitive institutions, laws and decision-making processes".

Caring for the Earth, a joint effort of the IUCN/WWF/UNEP, is another environmental strategy that has significance for viable interdependence because of its focus on the social and community aspects of sustainable development. Caring for the Earth is representative of the results of post-Brundtland work in that it further elucidates the concept of sustainability and recognizes the importance of cultural development. It argues that nature and people must be mutually reinforcing, that improvement in the quality of human life is necessary if sustainable development is to be achieved, as is "respect and care for communities".

### 2.2.7 Viable interdependence and equity

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As Keith and Simon have argued, the terms on which development is shaped and carried out may be more important than the kinds of development that take place. Viable interdependence involves conditions related to equity and in practice this pluralistic ethic means respecting different world views. Environmental assessment can be a supportive process only if it succeeds in functioning in both intercultural, interparadigmatic modes and perhaps "metacultural" modes as well. Otherwise development patterns may remain inequitable as an intra-paradigmatic scoping and assessment process will be limited to questions, problems and conclusions that are framed within a single, dominant paradigm.

Jacobs et al (1994) discuss equity and change, or the "..issue of the equitable distribution of costs and benefits across cultures, species and generations."

"Frequently this split in equity occurs along cultural lines, wherein the paradigm of one is reinforced and the paradigm of the other is diminished or even lost." (p. 6)

"Equity is an ethical construct; its application is culturally bounded, particularly with respect to the sources and sinks of development." (p. 7)

Tanner defines culture as: "A preferred way of doing things, based on values encapsulated in language and distinct forms of organization." (Vincent, 1994) Viable interdependence would, to a large extent, mean retaining preferred forms of development, or at least preferred adaptations. (Kemp, 1992). Intercultural equity in development is therefore a central element of viable interdependence. To some extent, a trend towards greater equity can be seen in the negotiation and implementation land claims, which create frameworks and mechanisms for power sharing.

# 2.2.8 Viable interdependence and power sharing

Fenge (1991) takes the position that "power sharing" is the principle upon which new relationships between aboriginal and non-aboriginal peoples in Canada should be structured: "The 1980's was a period in which aboriginal peoples were searching for principles upon which to base new and enduring relationships between themselves and non-aboriginal peoples in Canada. Self-determination, self-management, self-sufficiency, self-government, aboriginal sovereignty - all come to mind. The 1990's will be a period in which governments, industries, churches, and other components of Canadian society respond to these principles.

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In the fields of natural resource use and development, environmental conservation, and environmental assessment, power sharing through joint management is emerging as the central principle in the relationship between aboriginal peoples and government, particularly in those parts of the country subject to modern treaty making." (Fenge, 1991, p. 1)

Fenge cautions that nothing short of "empowerment" will suffice: "We must be very clear about this, for only empowerment will provide the framework necessary to address aboriginal economic, social and cultural issues in the long term." (Fenge, 1991, p. 1)

While related closely to equity, the notion of "power sharing" is more explicitly political, and its pursuit requires formal, often constitutional negotiation.

# 2.2.9 Contributions to viable interdependence from land claims

The negotiation and settlement of aboriginal land claims in Canada began with the process leading to the signing of the James Bay and Northern Quebec Agreement in 1976. Since then the scope of land claims or treaties have expanded; the general trend is for more far-reaching powers to be accorded to claimant groups. Resource use remains in the forefront of issues forming the basis of land claims. Agreements have typically resulted in ownership in fee simple of small pieces of community lands for claimants, along with extensive rights to resources over larger lands and limited rights over large claim areas. With respect to projects proposed from outside the claim areas, aboriginal peoples have typically gained joint membership, along with government appointees, on environmental assessment panels. In some cases, such as the recent Nunavut Final



Agreement, claimants have created land use planning organizations in an attempt to set out what they believe to be appropriate development. In theory, land use or resource plans, along with conservation strategies, provide a policy framework within which projects may be assessed, thus making the task of environmental assessment panels more straightforward. In practice, the relationship between planning and assessment has seldom been straightforward (Richardson, 1989).

On balance, it is clear that land claims have empowered northern aboriginal communities who were otherwise completely vulnerable to development impacts. Fenge concludes that land claim settlements: "....greatly increase the capability of aboriginal groups to deal with resource development and environmental issues at political, policy and technical levels" (Fenge, 1991, p. 39). The contribution of land claims environmental assessment processes to viable interdependence has been largely positive to date, although most of the projects that have been assessed in Northern Quebec and the Western Arctic have been relatively small in scale (Mulvihill & Keith, 1989). It remains to be seen how land claim-created environmental assessment processes will affect large scale projects that are proposed, if not imposed, from the south, thus perpetuating patterns of non-viable interdependence.

#### 2.2.10 Contributions from regional and circumpolar plans and strategies

Viable interdependence is implied but not well-articulated so far in literature pertaining to sustainable development in northern and circumpolar regions. Principles and theories have been borrowed from general frameworks and applied to the regional context.

The Kativik Regional Government's proposed "Plan Directeur" makes several points about development patterns that are viewed as inappropriate for Nunavik:

"D'autre part, la deuxième forme d'utilisation du territoire est en général d'origine exogène et vise, dans la plupart des cas, à satisfaire des besoins extérieurs à la région. Elle consiste à exploiter diverses ressources de manière intensive au moyen d'infrastructures et



d'installations fixes et permanentes. Ce deuxième type d'utilisation du territoire peut générer des retombés économiques, mais, en général, il occasionne des nuisances environnementales". (p. 13)

...."Pour cette raison, il est important, dans un premier temps, de reconnaître les deux modes d'occupation du territoire découlant chacun d'une perception particulière du milieu et poursuivant chacun une finalité distincte. Dans un second temps, il faudra concilier ces deux tendances parfois opposées. Ce but peut être atteint par diverses mesures, notamment la réduction des incidences négatives directes ou indirectes découlant de la pratique de chaque type d'utilisation, une participation commune et un meilleur partage des bénéfices et des retombés résultant des projets de développement touchant la région et une utilisation plus polyvalente des terres mais aussi par un plus grand respect et une meilleure compréhension de chacune des visions et conceptions de ce territoire." (p. 14)

As another example, some relevant criteria for viable interdependence have been proposed in the Inuit Circumpolar Conference's Arctic Policy, which amounts to a new relationship between polar regions and their neighbors. It reflects an analysis that the Arctic has absorbed the effects of colonialism and the impacts of development initiated exogenously without an adequate strategy or a proactive stance. These criteria are reflected in the evaluative framework which is proposed in section 2.5.

# **2.2.11** Contributions to viable interdependence from joint management initiatives

The goals of "co-management" of wildlife or other resources, "joint management", and "joint stewardship" have been embodied in the creation of several boards or commissions in the Arctic. (e.g. Berkes, 1989). Unlike much of the literature on co-management and related initiatives, however, the conception of viable interdependence proposed in this thesis does not depart from the premise that aboriginal participation in management amounts to a measure of control. A place at the table may not be sufficient if other, more pervasive and systemic factors work to reinforce the dominance of one paradigm over another.

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Co-management, moreover, has thus far been aimed primarily at wildlife management. It does not affect projects directly, although the principle of joint membership is used increasingly on environmental assessment and planning boards created through northern land claims.

### 2.2.12 Viable interdependence and Integrated Resource Management

Integrated resource management, as the name implies, is a process aimed at resolving conflicts, promoting consensus, and bringing together a multiplicity of values. In theory it has much relevance to the challenge of viable interdependence.

Mitchell (1990) identifies four elements of IRM: "....a multiplicity of purposes, means and participant strategies; a blending of various resource sectors; the use of resource management as a mechanism for social and economic change; and a striving for accommodation and compromise."

# 2.2.13 Summary: Elements of an evaluative framework for viable interdependence

In this section the nature, historical context and conceptual underpinnings of viable interdependence are discussed. Various frameworks and elements of potential significance to viable interdependence are identified. It remains now to refine these elements into a broad framework against which development, development relationships, and projects may be evaluated; and to develop a more focused set of criteria against which environmental assessment and scoping in support of viable interdependence may be judged. This is done in section 2.5.

Viable interdependence, like the prospect of sustainable development, is an extremely broad, complex potential process. It can be characterized in terms of several principles, and it revolves around equity. Viable interdependence is similar to sustainable development, with the distinction that it occurs in an inter-regional, intercultural context. Viable interdependence is a normative ethical principle. "Interdependence" is seen as an inevitable relationship between regions and cultures, expressed



in terms of economic patterns and flows. "Interdependence" thus represents the sum of these flows. In this thesis it is evaluated primarily in terms of the northern perspective, since the north has frequently been the subject of development imposed from the south.

# 2.3 ENVIRONMENTAL ASSESSMENT

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As argued in Chapter 1, environmental assessment (EA) is influential in shaping development patterns in the north by approving, modifying or rejecting projects and by stipulating conditions of approval in terms of mitigation and compensation. It was also argued earlier that environmental assessment has significant potential to contribute to viable interdependence. A broad discussion of environmental assessment is an essential conceptual component of this thesis, since EA frames the scoping process that forms the basis of the case study.

In this chapter environmental assessment is discussed and analyzed from a perspective of sustainability and viable interdependence. In order to probe the potential interface between EA and viable interdependence, it is necessary to review EA from various perspectives and discuss several of its aspects. This chapter therefore sets out the limits of environmental assessment before focusing on its largely unrealized potential as an expanded tool or process. Although it is argued throughout that EA has great potential in this regard, this is not an obvious conclusion to be reached on the basis of its performance to date. Rather, it is a conclusion to be drawn chiefly from a perspective of expanded environmental assessment, which is best described in contrast to its history. A brief overview of the development of EA is therefore provided, and some of the problem areas, as well as points of consensus and controversy surrounding EA are discussed. Some of the characteristic shortcomings of environmental assessment are analyzed. A discussion of the experience of environmental assessment in northern Canada follows, and the section concludes with a discussion of the possibility of EA being an instrument for viable interdependence. A key area of discussion is the experience of EA in remote communities subject to exogenous development influences.

# 2.3.1 Background

The practice of environmental assessment was instituted in the late 1960's in the United States in response to general environmental concerns and



specific concerns about the unanticipated negative impacts of projects. In Canada the federal government created its own EA process in the early 1970's. Since that time, a number of provincial, territorial and aboriginal land claim-based EA processes have also appeared. Environmental assessment is now widely practiced in Canada, the United States and elsewhere, and its form and procedures are regionally and culturally variable. Until the 1980's most theorists and practitioners employed the term "environmental impact assessment"; "environmental assessment", however, has gradually become the term of choice. The two terms are now used virtually interchangeably.

While there is no universally agreed-upon definition of environmental assessment, standard conceptions revolve around EA as a participatory process aimed at identifying impacts in advance of decisions. Two definitions along these lines are proposed by Bidwell (1992); and Richardson (1989):

"In essence, it involves the systematic identification of the likely environmental consequences of a new project in order to provide information for the engineers and planners to shape the proposal in such a way as to minimize the effect on the environment. It also provides decision makers with the data needed to assess whether the remaining impacts are acceptable to the community." (Bidwell; EIA Review vol. 12 #'s 1&2, March/June 1992)

**Richardson elaborates:** 

"The basic idea of EIA is quite straightforward: to scrutinize a development scheme while it is still in the planning stage (sometimes by examining an 'impact statement' prepared by the proponent) in order to ensure that the expected effects on the environment are acceptable and to require such corrective or mitigative measures to be incorporated as seem necessary; or in extreme cases, to reject the project altogether." (Richardson, 1989, p. 28)

Many theorists go beyond this basic definition and emphasize other roles of EA such as planning or conflict resolution. Susskind, for example, focuses on the latter. First, he starts with a basic definition:

"...the generation of scientifically credible information regarding probable future conditions..", but argues that this is insufficient, and proposes that practitioners go beyond information gathering to "negotiated decision-making". (Susskind, in EIA Review 3:1, p. 3)

This alternative conception starts from the premise that environmental and development disputes are primarily value conflicts, and therefore not normally subject to resolution through the mere generation of scientifically generated information by experts. Susskind proposes a new purpose and definition:

"The purpose of impact assessment must be transformed to make it a facilitating process of joint fact-finding, aimed at producing an informed resolution of conflict." (Susskind, in EIA Review 3:1, pp. 6-7)

The key idea here is that the "fact-finding" is done jointly, implying that the process is more important than the end result; stakeholders are more likely to accept even an undesirable outcome if they have had sufficient input. Susskind's vision of EA is one of many alternative conceptions, the full range of which will not be discussed here. The existence of a range of ideas about EA shows that it is ideally a flexible instrument that can be adapted to a specific context. Finally, it is normal for competing ideas about EA to coexist in a review process, with project proponents and environmental activist groups often at different ends of the spectrum. The tensions that exist in most EA processes underline the need for a general or minimum definitions as discussed above.

#### 2.3.2 EA in Canada

In Canada a considerable number of projects have been subject to EA procedures over the past two decades. The undertakings range from small projects to "mega-projects". Undertakings other than those defined as "projects" have also been subject to EA. Depending upon the particular jurisdiction, "concept" and "class" environmental assessments have also taken place. More recently, proposals have been made to assess government policies and programs. Many proponents of EA would like to see its scope of application expanded to include, even automatically, the G

entire range of public and private human activities that may have significant environmental and social impacts.

The concept and practice of environmental assessment have expanded over time, and new procedures and techniques have been introduced. Some of these include the increasing consideration of social impacts; recognition of cumulative and transboundary effects; tentative linkages to related processes such as land use planning; greater opportunities for public participation and scrutiny; increasing emphasis on the justification of projects; and a number of theoretical/scientific frameworks for impact prediction (Jacobs & Sadler, 1990).

Environmental assessment is sometimes thought of as a planning tool, although, by virtue of its project-specific application, it was never intended to fulfill the role of urban, regional or community planning processes. The frequent reality that projects are proposed in planning and policy vacuums has by default conferred upon EA a planning role. The conflict generated and resolved by large projects can become a de-facto planning and policymaking exercise. As will be discussed later, many theorists argue that EA should take on an impact management role in addition to its information gathering, conflict resolution and planning roles. Nevertheless, there are at present few examples of EA processes extending into impact management. While "environmental management plans" are required of many proponents as a part of EA processes, these tend to be too reliant on proponents to fulfill the management function. Crucial monitoring, follow-up and long-term management functions are not normally built into EA processes, but are needed in order for EA to span the full life-cycle of development.

#### 2.3.3 Critiques, limits and shortcomings of EA

The practice of environmental assessment has been subject to a steady stream of criticism since its inception. Most of this criticism relates to questions of "effectiveness", "efficiency" and "fairness"; this threefold analysis of environmental assessment has become a standard, although insufficient, critical framework.



Critics of environmental assessment have noted that it is an essentially reactive process:

"The fundamental criticism of EIA in Canada is that it is often applied as a reactive and discrete activity, loosely related to the broader process of environmental decision-making." (Marshall et al, 1985, p.4)

Many critics have argued that the environmental assessment processes begins too late, once the design variants of projects have been substantially determined. The ability of the process to influence the nature and design of development activity is thus constrained.

Others argue that the scope and mandate of EA is generally too narrow. The terms of reference for many environmental assessment panels have constrained or precluded their abilities to consider such important issues as the full range of social impacts; cumulative effects; the complete range of alternative ways of carrying out the project and alternatives to the project itself; and the basic justification of the proposed undertaking. In many cases the definition of "environment" employed in EA is rather narrow. There appears to be a general trend, however, toward expansion of scope and mandates.

Another general criticism relates to EA's frequent lack of comprehensiveness - its failing to consider and predict the full range of potential impacts and identify some of the most important effects. (for example, Berkes, 1988) Moreover, the inherent uncertainty associated with development is not limited to biophysical impacts. It is also frequently difficult to predict how people will behave in an environment changed by development. If anything, twenty years of EA should have taught us that the manner in which we deal with imponderables is at least as important as how we deal with known factors and quantities.

Marshall has identified science-based deficiencies of impact analysis as a key problem (Marshall, 1985, p. 8). As noted above, EA processes often fail to identify or predict important impacts. For example, even if a formal

environmental assessment of Hydro-Québec's La Grande project had been done, it is doubtful that methyl-mercury contamination would have been predicted. EA's predictive limitations are largely attributable to scientific deficiencies - analytical techniques are in evolution, and attempts to model ecological systems and impacts have been only modestly successful. Proponents of alternative frameworks such as Adaptive Environmental Assessment and Management (Holling, 1978) view uncertainty in a different manner than "rational comprehensive" impact predictors and planners. In any case, environmental assessment is confronted with a generic problem that faces most scientific disciplines: uncertainty. Others question the appropriateness of self-assessment. In most EA processes the proponent of the undertaking is responsible for preparing an environmental impact statement. Many critics argue that the lack of independent study unfairly biases the study of impacts, even though the public and the EA panel have the opportunity to review the proponent's findings.

A common criticism concerns the constraints to public participation and scrutiny within EA processes. Although EA processes in general have become more open and transparent over time, many jurisdictions either have failed or still fail to provide what critics consider to be adequate opportunities for public involvement (Gibson, 1988). The lack of policy context, or lack of clarity of policy frameworks has also been identified as a shortcoming. Critics have argued that the task of EA is constrained by lack of environmental policy. EA panelists have frequently been asked to evaluate the acceptability of projects, impacts and mitigative measures without sufficient policy guidance. (Richardson, 1989, p. 29) This critique is echoed by Rees:

"Critics of 'traditional' EA have long complained that in the absence of a broader policy and planning context, it is impossible to assess the significance of impacts associated with isolated single projects." (Rees, in Jacobs & Sadler, 1990, p.137)

Many have commented on the overlaps and omissions in institutional arrangements with respect to EA (for example, Marshall, 1985, p. 9). Linkages between environmental assessment and related processes are



often poorly defined and operationalized. Moreover, linkages among the various steps in environmental assessment are often poorly operationalized. The frequent result is that the efforts of environmental assessment are poorly integrated into management and decision-making.

Project proponents have leveled their own criticisms at environmental assessment, noting that EA processes can be too long, too costly, too inefficient, too uncertain and too ambitious. Proponents have often resisted the intent and goals of environmental assessment. On the other hand, they have contributed positively to its development, and in many sectors have shown evidence of internalizing its goals.

Another fundamental limitation is that all EA frameworks and techniques have embedded values and philosophical underpinnings, and all are culture-based. Choosing an appropriate framework and a set of techniques is especially problematic when they are to be applied in settings other than those in which they originated. Each framework casts issues and problems in very specific yet subtle ways which must be understood if they are to be used effectively. This limitation or challenge is critical when applying EA to inter-regional and inter-cultural situations. Local needs, culture and knowledge influence the nature, form and character of EA. (Jacobs, Brown & Mulvihill, 1993)

On the whole, much of EA is mistakenly perceived as a purely scientific endeavor - that is, objective and value-free. It may be more accurately described, however, as a creative, culturally-based mix of science and art. While the process is inherently value-based, informed by values derived from the biophysical and cultural setting, data that are considered scientific and objective are frequently used. Evaluators must be able to recognize and consider both facts and values. The very concept of information particularly information related to the environment as a biological and cultural milieu - is necessarily selective and frequently manipulated to suit the objectives of the actors involved. (Jacobs, Mulvihill & Sadler, 1993; Jacobs, 1981)

In summary, based upon criticisms of EA over the last twenty years, one might characterize the limitations and limits of EA in the following ways: EA's ability to predict impacts is limited; there are questions of fairness, openness, rigour of application and due process; EA is poorly integrated with related processes; it is too reactive and project-specific and it can be too narrow in scope; it frequently operates in a policy vacuum, and it cannot be easily transferred from one cultural context to another. Moreover, as will be discussed next, the history of EA is largely one of foregone opportunities and unrealized potential.

# 2.3.4 EA's unrealized potential, and some theoretical frameworks

In the evolution of environmental assessment, new ideas have often aged considerably before being put into practice; there is a characteristic time lag between the conceptualization and operationalization of improvements. For example, the full consideration of social and cumulative impacts were advocated long before environmental assessment regimes began to reflect their recognition. This is largely because approaches to environmental assessment have become rigidly formalized and entrenched through legislation and other means, without allowing for the eventuality of new imperatives and techniques. (Mulvihill & Keith, 1989)

EA has generally fallen short of its implicit goals, namely protecting the environment and fostering sustainable development. A range of problems have been identified; solutions to them amount to an expanded view of EA, which remains largely untested. EA panels, on the whole, have been reluctant to experiment extensively - the tendency has been for them to exercise their mandates restrictively. Finally, while considerable learning takes place in EA processes, there is at best a discontinuous application of lessons from one process to another, resulting in a slower-than-necessary evolution of EA practice. This relatively slow evolution has taken place despite considerable theoretical work in the realm of EA. Two of the most attractive frameworks are discussed below as examples of the existence of alternatives to the ponderous, unimaginative data-gathering exercise that has frequently taken place.

#### Adaptive Environmental Assessment and Management

The Adaptive Environmental Assessment and Management (AEAM) strategy was introduced by Holling in 1978, and has been elaborated by Holling and others since that time. In essence, AEAM is an approach to dealing with uncertainty. To the extent that it is an identifiable system, it involves interactive workshops, impact modeling and other techniques. Holling is a proponent of procedural adaptiveness and the "management of surprise"; he stresses that "avoiding the foreclosure of options" should be a guiding principle.

According to Jones & Greig (1985, p. 21), AEAM is "a collection of concepts and approaches whose common theme is the recognition that uncertainty is the dominant component of most environmental issues." Jones and Greig also noted that AEAM provides "a set of tools to facilitate problem identification, communication and explicit impact prediction." (p. 41)

To date, the fate of AEAM has been a curious one. It has been acknowledged by virtually every environmental theorist and practitioner, and has been rejected by few. Nevertheless, there appear to be few examples of the actual application of AEAM. In one case, a team of researchers, hunters and resource managers in the Belcher Islands have proposed to apply the principles of adaptive management. More often than they have been explicitly applied, however, some of the principles of AEAM have crept into "standard" environmental assessment methodologies. It is probably accurate to say that the full intent of AEAM as proposed by Holling has never been applied.

AEAM remains a valuable principle in environmental assessment. In previous research, the author applied the adaptiveness theories of Holling and others to the design of institutions and organizations for EA in northern Canada (Mulvihill & Keith, 1989). The author proposed a working definition of adaptiveness: the ability to remain functional amidst contextual complexity and difficulty, to shift directions and approaches where appropriate, to perceive and seize opportunities, and to be sufficiently innovative as to effect change. A set of criteria for institutional and organizational adaptiveness for EA was proposed, including "semiautonomy/multiple accountability" (Jacobs & Kemp, 1987); "ability to link diverse interests"; "continuous learning/self-evaluation"; and "exploring new approaches". The criteria amount to a set of design considerations and practical tools, guiding institutions and organizations involved with EA in northern Canada to adapt to the challenges posed by the review of diverse projects amidst contextual turbulence and uncertainty.

### Ecological Framework for Environmental Impact Assessment

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In 1983 Beanlands and Duinker reported on a series of workshops that sought to establish, as the title of their report suggests, "An Ecological Framework for Environmental Impact Assessment in Canada". The report makes a substantial theoretical contribution to the challenge of long-term management, although at the time the workshops were focused primarily on the improvement of assessment techniques.

Beanlands and Duinker make distinctions among "boundaries" in environmental assessment; "boundary-setting", in this sense, refers to decisions regarding what the EA process should and should not try to accomplish given its resources, mandate and constraints. The four types of boundaries, they submitted, are "administrative boundaries, or "time and space limitations imposed for political, social or economic reasons"; "project boundaries", meaning "time and space scales over which the project extends"; "ecological boundaries", or "time and space scales over which natural systems function"; and, finally, "technical boundaries", meaning "the limitations imposed by the unpredictability of natural systems and by our limited capabilities to measure ecological change." (Beanlands & Duinker, 1983, p. 93)

The work of Beanlands and Duinker has particularly important implications for the design of scoping processes in EA. Combined with a "cultural framework", it would contribute significantly to a holistic framework for EA. Since the work of Beanlands and Duinker, the "ecosystem approach" planning has been further developed. It is fair to say



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that an ecosystem philosophy and approach to planning is gaining currency and emerging as a guiding principle for EA. Five "fundamental themes" of the ecosystem approach to planning were proposed in *Regeneration*, the final report of the Ontario Royal Commission on the future of the Toronto waterfront. The criteria include: "the ecosystem as home", "everything is connected to everything else", "sustainability", "understanding places", and "integrating processes".

### 2.3.5 Environmental Assessment and Sustainability

More recently, the theoretical development of EA has focused on cumulative effects assessment, and more particularly on the links between EA and sustainability. Perspectives of environmental assessment vary depending upon the various demands placed upon the process by individuals and groups. There is considerable disagreement as to the overarching purpose of environmental assessment, just as there is a range of perceptions and values concerning the purposes of development. Sadler, for example, proposes an expanded view of EA:

"Environmental assessment, in principle, was adopted to ensure that development is sustainable, that is, development does not irreversibly damage essential ecological processes and/or foreclose other resource values and options for use." (Sadler, in Jacobs & Sadler, 1990, p. 172)

In fact, the new Canadian Environmental Assessment Act, which is scheduled to be proclaimed early in 1995, builds the notion of sustainable development into its definition of the Act's purpose:

" (a) to ensure that the environmental effects of projects receive careful consideration before responsible authorities take actions in connection with them;

(b) to encourage responsible authorities to take actions that promote sustainable development and thereby achieve or maintain a healthy environment and a healthy economy;

(c) to ensure that projects that are to be carried out in Canada or on federal lands do not cause significant adverse environmental effects



outside the jurisdictions in which they are carried out;" (Canadian Environmental Assessment Act, section 4)

In practice, two competing views of EA remain - one restrictive, the other more expansive - along with considerable middle ground. It is in this broader context that criticisms of EA should be considered. While there may never be unanimity concerning the goals of EA, it is argued that the emerging ethos of sustainable development is strong enough to provide a sound basis for concluding that the "expanded" view of EA is the prevailing vision. Most theorists and practitioners want EA to have a broad mandate and to be an integral instrument of sustainable development. Moreover, as Sadler suggests, expectations have justifiably arisen that EA should not only be one of several interrelated processes that together provide tools for sustainable development - it should be regarded as one of the central processes:

"...EA is both a reference and entry point for analysis of the problems encountered in designing integrated approaches to resource and environmental management". (Sadler, in Lang et al, 1990, p. 99)

In other words, it seems reasonable to hope that EA may be one of the principal vehicles in the pursuit of sustainable development. This is fortunate, since in many cases EA is the "only game in town" - the only forum in which questions regarding equity and sustainability in the context of project proposals many be addressed. Finally, it must be recognized that EA cannot in and of itself provide an adequate pathway to sustainable development; it must be combined with a myriad of policies and practices if sustainability is to be a successful prospect. This is echoed by Jacobs and Sadler:

"Environmental assessment is a necessary but not sufficient process for achieving sustainable development...In this regard, there is an urgent need for second generation assessment processes, employing new and expanded concepts, methods and procedures...coordinated with other planning and management instruments as part of an overall approach to environment-economy integration". (in CEARC, 1990; p. 171)



Finally, it should be noted that EA practitioners, while constrained by their mandates, sometimes succeed in stretching their terms of reference and expanding EA. In the absence of a planning or policy context from which to draw, EA panels may seek to apply sustainability and equity principles developed by national or provincial Round Tables on Environment and Economy, or they may refer to regional development and conservation plans developed in the north, even though both may lack legislative force.

# 2.3.6 Towards Expanded EA

Jacobs, Mulvihill & Sadler (1993), among others, have argued for "expanded EA". "Expanded EA", as the term would imply, is a more ambitious vision of EA, one that proposes the deployment of alternative procedures, a broader focus with regard to development impacts, and a longer-term view of assessment, extending into management. The general vision of expanded EA proposed by Jacobs, Mulvihill and Sadler built upon the aforementioned alternative frameworks while emphasizing planning and management strategies. They postulated that EA has the potential to be a management instrument that serves an ongoing monitoring and evaluation function within a continuous, iterative planning and implementation process. Jacobs, Brown & Mulvihill (1993) build upon this vision of expanded EA by applying it to the challenge of adapting EA to informal development contexts. The latter argued that expanded EA would also feature greater sensitivity to cross-cultural development issues and diverse knowledge systems; an ecosystem approach to assessment; a more pluralistic view of project design; policy-level assessment; provisions for alternative dispute resolution; and greater applicability to informal undertakings and contexts. Eight preliminary evaluative criteria were proposed by Jacobs, Brown & Mulvihill (1993); some were drawn from Brown & Jacobs, 1992:

- Flexibility (discretion in both content and process so that EA is functional in mono / multi-cultural and formal/informal contexts);

- Process Orientation (the process is emphasized; "process is product");

- *Scope* (broad definition and application of "environment" in the assessment process)



- Transparency (the ability of individuals and communities to understand the EA process);

- Participation (the approach and technique used must be able to elicit values from the cultural setting, and integrate these values into the process. Moreover, to effectively support community development, local control of EA is needed);

- Independence (in determining the need for EA, preparing guidelines, conducting review, etc.);

- *Effectiveness* (measured on the basis of the achievement of the multiple objectives of the community development process, in which the ongoing viability of the process itself is a key indicator);

- Efficiency (measured in terms of cost-effectiveness and time limits).

Departing from the work of the author and others, including those dicussed above, the following additional principles are proposed for expanded EA. Elements of this vision of expanded EA will in turn contribute to a framework for environmental assessment, scoping and viable interdependence (section 2.5).

• Environmental assessment practitioners should be prepared to conceive and operate on various shorter and longer term time frames simultaneously. There is thus a need for non-linear thinking, a willingness to reconceptualize the temporal nature of the development process in terms of its "beginnings" and "endings", and a predisposition to assess the full life cycle of development activity and therefore extend planning horizons.

• The terms and conditions tied to project approvals should be viewed as equally, if not more important than the approval itself. Project approval should no longer be thought of as a "gate", which, passed through once, need never be revisited. The role of environmental assessors and decisionmakers is thus not to be "gatekeepers", but managers. Phased approvals should be contemplated.

• The inherent fluidness of projects must be recognized at the assessment stage. Project design variants are seldom "final".

# 2.3.7 EA and community development

Whether or not EA can contribute substantially to community development in informal contexts is a key question that has been addressed by several authors (Jacobs & Brown, 1992; Biswas & Geping, 1987; Sammy, 1993; Toppin-Allahar, 1991). These and other authors have proposed means by which EA may be adapted successfully to communities in developing countries where informal development processes predominate - a situation strongly analogous to the "fourth world" aboriginal context in the Arctic.

Gagnon et al (1993) have also examined the prospect of social impact assessment (SIA) contributing to community development with reference to three case studies - Australia (North Queensland); Canada (the Ashuapmushuan River region in Quebec); and Western Thailand). In each of their case studies,

"...a dispute between the social actors and the proponents highlighted the inadequacy of initial approaches to impact assessment for addressing social and environmental concerns with the proposals." (p. 231)

They conclude that while formal SIA procedures have little ability to empower communities, informal processes surrounding the formal ones can do so. They, like other researchers, argue that in many cases formal EA is a post-facto justification of development decisions made earlier, and:

"...promoting a corporate and state power rather than fostering community development or empowerment." (p. 230).

They discuss the current context of remote communities subject to development pressures that originate from elsewhere:

"For many communities, existing exogenous models of control and management of local resources, and their relations with indigenous approaches, have not only economic and political importance, but also play a major role in cultural identity and consequently in local development (Bassand, 1990). (p. 230) In describing a case study involving a Hydro-Quebec proposal on the Ashuapmushuan River, they note that:

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"There is a deep unrest in Quebec about formal impact assessment procedures, especially for resources projects. The public consultation process and the "technical" approach to making the assessment have failed to meet expectations of affected communities. In the case of the Ashuapmushuan River, the opponents believe that if the project reaches the step of the public hearings, it will already have been lost." (p. 235)

Like Gariépy (1991), Gagnon et al (1993) strongly question and criticize the ability of the Public Hearings Environmental Board of Quebec (BAPE), with its formal procedures and limited scope, to shape the outcome of exogenous development proposals by incorporating community values and concerns. Gagnon et al (1993) introduce the concept of "community viability", a close relative of viable interdependence, and an underpinning of the latter:

"Whatever happens, the debate on the Ashuapmushuan River involves a strong public demand for community viability, much greater political rationality and accountability in the decision-making process." (p. 235)

With respect to a case study in Thailand, Gagnon et al (1993) note:

" To date, there are still few channels for integrating these concerns into environmental or social impact procedures, and as a result resource development and associated social and environmental impact remains highly polarized." p. 239

They note the conclusion of Howitt in analyzing SIA procedures involving aboriginal communities in Australia:

"He further suggested that a Napranum social impact study should be 'participatory, interventionist and responsive to local dynamics rather than adopting the conventions which have marginalised Aboriginal peoples in other EIS's." (Howitt, 1991, p. 3)

They note one of the affected community's key demands:

"...the Council felt that Aboriginal people and their organizations should, as a matter of principle, not be seen as optional consultants to be liased with at the discretion of the developer's impact assessment consultant. Rather, they asserted, they should be empowered to act to address negative impact directly and to engage in the assessment and amelioration of impacts directly." (p. 242)

Ultimately, Gagnon et al (1993) argue, a high level of community participation in impact research should provide:

"...a window of opportunity to pursue a community development agenda throughout the impact assessment process." (p. 243)

In the Ashuapmushuan case:

"The articulation between the actors of an alternative regional development strategy, including local conservation programs and better utilization of existing dam sites, provided a strong challenge to Hydro-Quebec, and enhanced the local and regional value of the proposal." (p. 246)

Among the conclusions of Gagnon et al (1993):

"If a project proponent can be persuaded to realize that social dissatisfaction can affect long-term viability and security of investments, before decisions are made instead of retrospectively, it is possible for many proposals to be transformed into more locally acceptable forms, from which a wider range of impacted groups derive some direct and meaningful benefits..." (p. 245)

This amounts to a version of viable interdependence, although the present thesis is concerned less with the outcome of specific conflicts themselves and more with the possibility of intercultural dialogue and an acceptance of differing perceptions and values, thus perhaps eventually resulting in ongoing viable interdependence. Viable interdependence is thus a longterm process that cannot be determined through the resolution of any particular conflict.



Gagnon et al (1993) propose a useful framework for community empowerment through SIA:

- "appropriating the formal SIA procedures to community priorities";
- "extending the formal procedures into less formal settings, where avenues for community influence are greater";
- "exercising increased levels of community control over technical inputs into SIA inquiries";
- "negotiating popular participation in territorially based campaigns for more acceptable local outcomes to project proposals and the mobilization of popular support" (p. 247)

The work of Gagnon et al, along with that of Gariépy, which was discussed in section 1.2 and is again discussed in section 2.4, provide valuable insight into the prospect of using EA to support community development.

# 2.3.8 The northern Canadian experience: from Berger to Beaufort to Great Whale

The experience of environmental assessment in northern Canada is mixed. A wide range of projects have been reviewed by the Federal Environmental Assessment and Review Process, and regional or land claim organizations such as the Kativik Environmental Quality Commission in Northern Québec and the Environmental Impact Review Board in the Western Arctic (Mulvihill & Keith, 1989). In fact, the scale and nature of such development projects as the Mackenzie Valley Pipeline, the Beaufort Sea Oil Drilling Program and the James Bay Hydroelectric Projects have made northern Canada a kind of laboratory for the testing of environmental assessment. The corollary is that these exercises have also confirmed some of the limitations of environmental assessment. The two case studies which appear to offer the most lessons for the review of the Great Whale project are discussed briefly below. In both cases the context was intercultural, and in both cases there was a deliberate emphasis to accommodate this, although with different results.

#### The Berger Inquiry

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The landmark inquiry into the potential impacts of the proposed Mackenzie Valley Pipeline in the 1970's was not a formal environmental assessment, but a process that had many of the functions of EA. The Chairman of the inquiry, Justice Thomas Berger, succeeded in pioneering to a great extent the practice of stakeholder consultation and participation within the context of a large exogenous development proposal in the north. The Berger Inquiry provided an early if somewhat tentative case of community empowerment in the face of a large, and largely unwanted, development proposal. In the minds of many, it has become a model for every subsequent environmental review conducted in the north for large projects:

"Finally, an earlier inquiry into the effects of industrial development in the North - the Mackenzie Valley Pipeline Inquiry - established a standard against which other such inquiries will always be measured. From 1974 through 1977, Mr Justice Thomas R. Berger, Commissioner of the inquiry, examined the social, economic, and environmental effects of a proposed gas pipeline across the northern Yukon and up the Mackenzie Valley.....the Berger Inquiry had a broad mandate to deal with fundamental issues of northern development and to make recommendations that would reach far beyond the fate of a specific development project. Judge Berger fulfilled this mandate. His recommendations reflected an understanding not only of the technical details of pipeline building, but also of two conflicting visions of the North - the southern vision of the North as a frontier and the native people's vision of the North as their homeland." (CARC, Northern Perspectives, vol. 12, #3, December 1984, pp. 2-3)

CARC argues that the focus on process was the key to the success of the Berger Inquiry:

"The strength of the Berger inquiry was its process.......His conclusions and recommendations reflected an impressive synthesis of the issues considered during the inquiry." (p. 3)

MacLachlan notes the attention to the intercultural context of the inquiry; in her summation a vision of viable interdependence can be noted:

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"Mr Justice Thomas Berger *understood* that the Inuit, the Dene, and the Métis of northern Canada have distinct cultures, economies, values, and aspirations that they wish to maintain and enhance. Judge Berger accepted that there are irreconcilable philosophies and approaches to resource development. His recommendations aimed to strengthen the indigenous economy based on renewable resources so that it can survive in a mixed economy. He sought ways for different economies and cultures to flourish side by side and made specific recommendations concerning how non-renewable resource development can proceed in an orderly way to ensure 'parallel and balanced development." (Letha MacLachlan, in CARC, ibid, p. 8)

Vincent (1994) notes that a seminal contribution of the Berger Inquiry was the use of "double hearings":

"The Berger Commission instituted two types of hearings. The first, called 'official' hearings, were held for representatives of all groups from the public. These groups expressed their views through experts and legal counsel. Each representative was heard and cross-examined according to normal tribunal procedures. By contrast, meetings held in the communities allowed local populations to express their preoccupations, experiences and opinions in a much less formal atmosphere, in their own language and without intermediary (Berger 1977, vol. 2:235) ......Berger's approach gained widespread acceptance as many inquiry commissions, at least those mandated to consult native populations, adopted the practice of double hearings." (Vincent, 1994, p. 36)

While the Berger Inquiry has been highly praised for its innovativeness, and while its lessons have been incorporated in some subsequent cases perhaps most notably the Lancaster Sound Regional Planning Study - the techniques used by Berger have not yet become standard practice. (Gagnon et al, 1993) This is shown by the experience of a subsequent large northern review process which is discussed next.

#### Beaufort Sea Environmental Assessment Process

The Beaufort Sea Environmental Assessment Process (BEARP) issued its final report in 1984. It remains the lengthiest and most comprehensive public review ever conducted under the Federal Environmental Assessment and Review Process. Several hundred hours of public hearings



were conducted for this broad review of proposed hydrocarbon development in the Beaufort Sea region The review was intended as a concept assessment of sorts that would establish future policy direction. Rees (1984) argues that BEARP failed to deliver:

"Most important, the panel did not take advantage of its unique opportunity to recommend specific procedures and institutions for decision-making that can assure fair and safe development in the Beaufort Sea region." (Rees, W. in CARC 1984, p. 5)

For Rees, the test of the process was not whether the panel listened to northern communities, but whether or not the process succeeded in advancing the interests of the communities:

"The report therefore provides no analysis of the communities' own aspirations for development and how these might be either satisfied or compromised by hydrocarbon production." (p. 6)

Rees and others thus expected the process to provide tools for a goal that amounts to viable interdependence, but found it lacking in this regard.

Sadler (1990) provides a balanced evaluation of the BEARP process from a "multiple perspective", arguing that, given its very significant constraints, BEARP achieved its main objectives and contributed to process development for EA. Some of the innovations of BEARP with respect to scoping and public participation are discussed in section 2.4. For the present discussion, it is worth noting that there are two views of the public participation afforded by BEARP. Sadler found much that was positive:

"At the end of the day, the review practices and procedures adopted by the Beaufort Sea EA Panel display innovation and creativity. This seems to me to reflect more than the necessity introduced by the atypical scope of the mandate. It is a consequence of an impressive commitment to public participation by northern residents." (p. 47)

MacLachlan, however, found much to criticize, noting that the consultation of native people was inhibited by the refusal of the panel to accept information regarding land claims - the principal framework through which the native stakeholders were expressing their aspirations regarding land use at the time:

"This constraint was inconceivable to native groups, who found it impossible to talk about the future plans of others without being able to refer to their own......Through the control they are seeking in land claims negotiations, native peoples may benefit from, indeed survive, the impacts of the proposed development." (CARC, 1984, p. 8)

MacLachlan continues:

"In my opinion, the panel failed to comprehend or *interpret* what northerners were saying. The BEARP replicated the community hearings process that has become a ritual since the Berger inquiry, but in its brief community visits, the panel failed to grasp the complexities of the northern native people's dilemma. The panel's recommendations on the human environment therefore are disembodied from the social and political context within which northern development is taking place." (p. 8)

MacLachlan is eloquent in describing conditions for more balanced development, a concept related to viable interdependence:

"It failed to acknowledge the need for a fundamental change in the social, political, and economic relationships between the native economy and industrial development, local control and southern-controlled colonial government, and collective and individual values." (p. 12)

MacLachlan concludes:

"Instead of strengthening the ability and power of northern native people to make authoritative decisions for themselves about their lives and their land, the panel consistently deferred this complex problem to government and industry." (p. 12)

One lesson to be drawn from these contrasting views is that clear guidelines and expectations of EA processes in intercultural settings are needed. This section has sought to describe the nature of EA and explore its limitations and potentialities. The challenge of intercultural EA must be better



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understood by practitioners, and applied in particular at the scoping stage. The nature of this challenge is discussed in section 2.4.



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#### 2.4 SCOPING

If EA is to play an important role in supporting viable interdependence, scoping will be a key part of the process. In this section the process known as "scoping" is defined and discussed in the context of environmental assessment and public review of proposed projects. The particular elements of scoping that are under examination in this thesis are identified and discussed in some detail. Various ways in which scoping has been and may be used - all context-dependent - are discussed. The specific challenges of scoping in an intercultural context are reviewed, and scoping is discussed in terms of its potential to support viable interdependence. Like the preceding sections, this section provides conceptual underpinnings for the evaluative framework to follow in section 2.5. Before proceeding to an exploration of the role of scoping in supporting viable interdependence, it is necessary to review its nature, theory and practice.

#### 2.4.1 The Theory and Practice of Scoping

Just as there is no universal agreement as to the nature and role of EA, there is likewise no universal understanding of that of scoping. Despite ground rules and prescribed steps, the theory and practice of scoping are still being debated and developed, and procedures tend to be refined through experience. To a large extent, those involved in scoping invent and reinvent it as they practice it. Like EA, scoping in practice is regionally and culturally variable, and its application varies with the nature of the development proposal under review. The practice of scoping may also vary significantly depending upon the expectations and values of those involved in the exercise. In some cases scoping may be dominated by, or even conducted exclusively by the project proponent. Finally, scoping, like EA in general, is not always participatory and does not always feature public consultation.

When conducted as a step in EA featuring a public review component, scoping normally involves the EA panels, the public and the proponent working together to determine issues of significance and priority. Scoping

is a way for environmental assessment panels to conduct specific or focused consultation. It is not the proponent's "show" and does not replace public consultation. The role of the proponent in the process is to act as a resource, supplying information concerning the project. An objective or role of scoping is to ensure that the subsequent issuance of guidelines, study of impacts and writing of the EIS will unfold in a way that is meaningful to stakeholders. Scoping is a critical step that sets the stage for the subsequent stages of EA. In this regard scoping can be valuable in prescribing not only the issues to be studied, but how they will be studied and reported. It is important to note that in the past some EA processes have unfolded in ways that made little sense and had little value to those most affected by the projects under review. In such cases, the absence or deficiency of scoping would likely have been a significant factor.

# 2.4.2 Debates surrounding the purpose of scoping

Kennedy & Ross (1992) have described the development of impact scoping in EA, from its informal beginnings in the 1970's, when it was conducted mainly "through the use of professional judgment and common sense" to its more formal practice today. The need for focusing the assessment process on key impacts became apparent after many EA exercises gathered extensive sets of data without necessarily shedding light on the key concerns associated with proposed undertakings. In some cases important concerns or impacts were ignored or missed altogether. (Wolfe, 1987) Scoping thus has much in common with the idea of "focusing".

Although some form of scoping is now common practice in EA, the terminology surrounding the concept has been inconsistent. Ross, for example, (1987, p. 2), considered impact scoping to be:

"...a process for identifying and assigning priority to the issues associated with a proposed action."

Ross submitted that there are three distinct phases to scoping:

"....the identification of concerns and interests, the evaluation of these issues, and the assigning of priority to the issues that warrant further



investigation and elimination of those that do not." (Kennedy & Ross, 1992, p. 476)

A complementary definition is proposed by Spalding et al:

"Scoping refers to the early identification of publicly-valued environmental attributes, and the setting of temporal and spatial boundaries." (Spalding et al, p. 65)

Jain et al (1993) define scoping in simple terms, in the American context of NEPA:

"The term refers to the process used to determine the range, i.e. 'scope' of issues to be addressed. Exactly which aspects of the environment are important at this time and place?".

They note that the "lead agency" involved should:

"Invite the participation of affected federal, state, and local agencies, any affected native American tribe, and other interested persons, specifically including those who might not be in accord with the action on environmental grounds." (Jain et al, pp. 76-77)

Another school of thought argues that the role of scoping is to: "...identify and interpret impacts for focus in the EIA and to also be an analytical tool in the EIA process." (Ibid)

Beanlands & Duinker (1983) belong to the latter school of thought, viewing scoping as "the design of the assessment portion of the EIA", and add that "social scoping can be considered as the establishment of the terms in which impacts should be expressed" (Kennedy & Ross, p. 476). In the present thesis the broader sense of the term scoping is adopted since it is argued that EA processes, particularly in intercultural contexts, must be carefully designed and deployed in ways that make sense to stakeholders, and that produce a meaningful EIS. Considerable direction is thus required for the EA process; these rules should be negotiated up front as should the actual content of the environmental studies in order to give every chance for the process to be meaningful and effective. Particularly in large-scale,

intercultural EA, it does not suffice to simply tell the proponent which impacts to study. Much more specific direction is required, for example in matters such as spatial and temporal impact boundaries, cumulative impacts and description of the project environment. Kennedy & Ross's definition of scoping is thus adopted:

".....an EIA activity in which a process is followed to identify the attributes of the environment for which there is concern (public and scientific) and a plan is provided that enables the EIA to be focused on these attributes." (p. 476)

A key element of this definition is the notion of a "plan" that enables the EA to be focused on the salient issues, and by extension, to produce an environmental impact statement (EIS) that is relevant and valuable.

# 2.4.3 The cultural context of scoping

Scoping has generally become more participatory. It is, at best, a multiparty, pluralistic exercise aimed at identifying issues of significance to individuals and groups potentially affected by projects. The main actors involved in scoping are the proponent, the EA panels and the intervenors. In a southern, urban context the challenges facing the EA panels as mediators are considerable. The must mediate between the frequently technical language of proponents, and the frequently non-technical language of intervenors, who view projects in terms of their social and environmental impacts. In a northern, intercultural context the primary challenge may be to establish a minimum medium through which productive exchange of information, perceptions and values can take place. EA itself is a construct reflective of Euro-American industrial culture, within which values and assumptions are embedded. This is supported by Jacobs et al (1993) in their discussion of EA:

"Our idea of nature and of wilderness as our ideas of urbanity and development are interdependent cultural constructs that behave in synergetic ways that can not be deduced from their individual components." (Jacobs, Bouchard & Lépine, p. 12)

"While this is true within a culture, it is all the more so between cultures. Culture is a preferred way of doing things based on values encapsulated in language and distinct forms of organization. It is reality seen from a particular group's perspective and passed down through generation. (*Tanner*) So much of environmental assessment is programmed according to a scientific view that very subtly encodes a euro-American industrial culture." (Ibid, pp. 23-24)

The cultural context of EA, however, is not always acknowledged by theorists and practitioners, some of whom regard EA as a neutral, valuefree process. It is a central underpinning of this thesis that EA must first be viewed as a construct embedded in a cultural context before it can be used meaningfully in an intercultural context. Having this sense of history and context should enable practitioners to keep in mind the inherent potential and limitations of scoping and EA.

# 2.4.4 Scoping as an "issue funnel"

Scoping is often thought of as serving a "focusing" function. The notion of focusing is often compared to "filtering", or, more precisely, "funneling" - reducing something to its essence, thereby eliminating the peripheral and the extraneous. The funnel, however, may be "pointed both ways"; it may also be desirable to expand the list of potential impacts to be studied and the range of issues to be addressed. A common criticism of environmental assessment processes has been their narrowness and their failure to address fundamental questions related to equity and sustainability. In order to do so it may be necessary to address upstream issues, policies and decisions. Therefore, as well as a focusing tool, scoping may also feature some qualities of the agora or open forum. And while scoping processes begin with a predefined problem - the potential impacts of a proposed undertaking - they must also have the capacity to re-shape and re-define problems where appropriate. Gariépy (1991) provides a normative view of EA which supports this view of scoping:

"One of the distinctive features of the EIA approach is that it can determine which factors ought to be considered relevant to the process. Participants at public hearings or inquiries can raise questions about factors specific to their own community and develop a new G

consciousness of their own environment. The EIA arena thus becomes one of 'problem setting' rather than one of 'problem solving' (Schon 1983)" p. 354

Scoping is thus a key phase of the EA process in which possibilities may be defined, narrowed or expanded. There is a tension between the inclination to point the funnel one way or the other. In a public review process the diversity of interests provides a basis for widening the list of concerns within reasonable limits, beyond those issues originally identified by the proponent.

#### 2.4.5 Scoping and conflict resolution

Some of the common conflicts reflected in scoping sessions include the levels of ecological knowledge and scientific certainty needed in order to justify actions or projects; the amount of research needed to reduce uncertainty to acceptable levels; the use and interrelationship of different kinds of knowledge; the appropriate scale and pace of development; and the management and distribution of information. These conflicts are usually more pronounced between cultures. It may be possible to resolve some of the conflicts through a process such as environmental assessment, while other, deeper conflicts may remain unresolved. Gariépy (1991) describes this as a conflict of rationalities:

"Finally, the EIA process can be likened to an arena in which the rationalities of the various actors conflict and the latter attempt to maintain and increase their influence by learning from the obstacles they have encountered in previous cases." (p. 355)

Although one form of rationality may prevail over another, scoping can be useful in identifying the limits of rationality. Many environmental impacts are inherently impossible to predict, if not entirely imponderable. Other impacts are more predictable. Scoping can help identify imponderables and thus put the art of prediction in context as an explicitly value-laden exercise rather than a quasi-scientific or technical one. Finally, scoping provides opportunities for mutual learning - intervenors learn about project design, and proponents learn about project impacts. An



idealized vision of consultation, and one appropriate to expanded EA, approximates an agora, or forum of social debate and learning.

#### 2.4.6 Scoping and public consultation

As a form of public consultation, scoping can serve several functions. Weston (1991) identifies several objectives of public participation in EA:

".....information, education and liaison; identification of problems, needs and important values; idea generation and problem solving; reaction and feedback on proposals; evaluation of alternatives; and conflict resolution and consensus". (p. 26)

In order for public consultation to be legitimate and effective, it must be conducted according to fundamental rules. Vincent (1994) discusses public consultation directly in the context of the Great Whale review process. She begins by noting that "the expression of citizen opinion has become more structured", and that "...the public has been forced to concentrate on precise projects rather than debate visions of society" (p. 1). Scoping, a structured form of public consultation, generally perpetuates these tendencies by asking for particular kinds of input from the public, and by implicitly or explicitly discouraging broad debates over development visions and scenarios. In practice, however, a large and controversial project such as Great Whale raises large questions and inspires broad debates.

Vincent offers a normative view of public consultation that is relevant to intercultural scoping in support of viable interdependence. Two major underlying principles of consultation are respect and equity; mutual understanding is also a pre-requisite and a goal. Consultation, Vincent argues, must be situated within a context of participation. Among other things, this means that the decider must be willing to modify the decision, and the population recognizes the decider's right to make the decision. Consultation can sometimes promote power-sharing, as a "a context created for influence over decision-makers", or an "official dialogue between the authorities and the public", making it "a means to bring the latent opinions and though patterns within a population into the open...". (p. 14)

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The World Bank offers a relevant definition of participation:

"A process by which people - especially disadvantaged people - can exercise influence over policy formulation, design alternatives, investment choices, management, and monitoring of development intervention in their communities." (p. 31)

Scoping in support of viable interdependence must reflect this definition, and hold the possibility of people influencing decisions. Vincent (1994) makes a distinction between intracultural and intercultural consultations, arguing that they are different in nature, with the latter posing special challenges. (p. 32) In such cases "double hearings" as practiced by Berger and others may be appropriate. Formal and informal consultations are sometimes used in intercultural consultation in order to identify the customs, future plans and values of the local population prior to or parallel with the EA/scoping process.

The provision of informal hearings recognizes that different forms of intervention or patterns of expression exists: "It is easy to imagine that......(Inuit/Cree) tradition dictates a certain form of intervention." (p. 37) In order to be receptive to these local interventions, time needs to be taken in order for third party to "make itself aware of the public and its ways of expressing itself". (p. 51) Familiarity with the methods of communication of the other, sensitivity to different ways of learning, acquiring and transmitting knowledge and a character of scoping hearings that are congruent with local cultures and customs are all required. Knowledge is required of EA panels to decode and translate messages transmitted by the public. As Vincent notes, however, total reconciliation is impossible in intercultural consultation. Despite the best efforts, public hearings remain a foreign mechanism for those who observe it from another culture. (p. 64) Seen in this light, the challenge for those conducting the scoping is to design as meaningful a form of consultation as possible. In practice, Vincent concludes, little thought has been given to the cultural distance of the public consulted in most cases. (p. 70)

### 2.4.7 Displacements of power in public consultation processes

Public consultation can have a significant impact by creating "displacements of power" and by bringing out upstream questions "from a different angle than that of the initiator" (Vincent, 1994). Gariépy (1991) supports this:

"The EIA process is in part a debate about technological issues or about projects with high technological content. One of the roles of public hearings is to inform the public, to usher the project out of the realm of 'mystery' - that of the objective and disinterested knowledge of experts into the realm of 'mastery', a playing field where participants take part in the planning game in the hope of influencing the outcome. The process, ideally, transforms technological issues into social choices (Hoch 1983)." (p. 365)

A public consultation exercise is therefore a fundamentally political process, one that does not aspire to uncovering truths, but which seeks to bring out values in an equitable forum in which communication barriers are minimized. Hamel echoes this view: "Consultation does not seek greater objectivity, but rather the expression of the subjectivity of a greater number of players." (Hamel et al, 1986, p. 42)

Parenteau (1988) supports this view in discussing the dynamics of public hearings:

"The public hearing is, rather, essentially a strategic game conducted on the basis of a previously existing relationship of forces which is reconstructed during the hearing itself..."; "..the internal dynamic of the hearing is produced by departures from the roles and by ruptures in the expected correspondences between role and social position". (Parenteau, p. 1) He summarizes: " .....public participation must be understood in itself as a way of dramatizing normal social dynamics." (1988, p. 4)

# 2.4.8 Approaches to scoping: contextual and individual influences

As will be discussed in chapters 3 and 4, a range of approaches to scoping may be asserted in a joint EA process. The choice of approach depends greatly on contextual and individual factors. Federal, Provincial and land claim-created EA processes within Canada all tend to have different traditions and styles with respect to scoping. The Federal EA process (EARP

was in effect at the time of the Great Whale review) featured some flexibility with respect to northern EA's, but its uneven use of public scoping over the years suggests a view of the process as optional or even secondary within EA. As a federal entity, EARP had few regular links to northern regions and faced the challenge of establishing new links with stakeholders in each new environmental review process. Depending on the particular case, EARP reviews might treat scoping as a technical exercise, or, where warranted in the view of the administrators, a more social exercise. Its provincial counterpart in Québec (BAPE) had a more established tradition of regularly employing public consultation techniques within reviews.

The EA processes and provisions created pursuant to land claims featured a different predisposition to scoping. The basis of land claim EA processes relates to empowerment, equity, and the redressing of historical imbalances. As such, these processes focus on the integration of multiple perspectives and the reconciliation of competing values. In contrast to EARP, close links are maintained with stakeholders as a day-to-day function. The practice of scoping in northern communities is therefore an extension of the core business of the EA processes created by the James Bay and Northern Quebec Act. With respect to the Great Whale case, however, the Cree and Inuit EA panels were predisposed to approaching the scoping exercise differently. Departing from a stance of opposition to the project, the Cree panel was inclined to be legalistic and treat scoping as a precedent-setting legal - part of their case against the project. The Inuit EA panel had a tradition of being minimally legalistic, viewed scoping as a central step in the process, and was prepared to practice it interactively. Finally, as will be discussed in chapter 3 and 4, individual panelists and chairs brought their own skills, biases and values to the scoping exercise.

#### 2.4.9 Intercultural scoping

The scoping process is at the heart of the challenge of intercultural EA. This early step in the EA process is a strong determinant of the possibility of the EA process being comprehensible and meaningful to the affected population. A continuum from "dialogue of the deaf" to inter-

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paradigmatic, intercultural, inter-cosmological dialogue is possible, depending on the openness or "porousness" of the process.

To be effective in an intercultural setting, a scoping process has to be broadly accessible; clear to the proponent but responsive to the intervenors; capable of addressing competing world views; characterized by fairness, comprehensiveness and efficiency; more analytic than encyclopedic; predisposed to accommodating an adequate, but not infinite problem definition; and receptive to both quantitative and qualitative input. In this context, the primary challenge is to establish a medium through which the various actors may function. These general criteria provide part of the basis for the evaluative framework for scoping in support of viable interdependence, proposed in section 2.5.

First, however, there is the challenge of gathering and analyzing information. Jacobs (1981) points out that this can be highly selective and culturally variable:

"The very concept of information, particularly information related to the environment as a bio-cultural milieu, is necessarily selective and frequently manipulated to suit the objectives of the most powerful actors involved." (p. 225)

" The very manner by which we deal with information is also culturally bound. The acquisition of data, its treatment, and the conclusions which we reach on the basis of this data are unlikely to be universally accepted." (p. 226)

Jacobs discusses the interrelationship of diverse information and knowledge systems, and their application:

"The scientific approach that disaggregates complex systems in order to gain an understanding of their functioning is very different from the holistic manner in which Inuit knowledge of the North is acquired. To what extent can we integrate centuries of Inuit observation of nature with the information derived from scientific research? Nor can scientific information be considered as the only viable matrix for the expression of environmental values. In many oral and traditional cultures, the most forceful expressions are those associated with art, poetry, and drama." (p. 226)

In practice, although scoping processes may be most receptive to explicit, quantitative information, they will be challenged to accept interventions that come in the form of anecdotes, metaphors or themes. This sort of unstructured input can be termed metaphorical, or non-guideline-specific. As argued above, scoping is a process or container oriented toward objectivity and explicitness, but many stakeholders express themselves differently through stories, fables, and myths. The container has to be porous enough to accept these less explicit, non-technical interventions.

The proponent in a scoping process may prefer the input to be specific, unambiguous, literal, reductionist, quantitative and focused on the requirements of the EIS. But the input may be the opposite: focused more on the project than on the impact studies, broad, holistic, and fundamental. The proponent may wish to discuss the approval requirements for the project; the stakeholders may be more inclined to deliver long, unstructured, philosophical stories regarding their environment and various preoccupations of their lives.

# 2.4.10 Scoping and patterns of expression

Metaphorical input may be highly relevant to scoping exercises. Mills argues that metaphor is fundamental to expression in all cultures. A world view is derived from metaphor; therefore the choice of metaphor is highly indicative of needs and aspirations of society:

- "....the choice of one metaphor rather than another, as a society seeks to comprehend its environment, is the clearest indicator of that society's ultimate demands upon its environment." (p. 248)

Mills argues that "...'metaphorical vision' is the tendency for a society to seize upon one metaphor in particular as the central vehicle through which it seeks to comprehend the world." (p. 238)

At a minimum, intercultural scoping must be receptive to metaphorical input; beyond this, it should aspire to the equitable treatment of metaphorical visions.

# 2.4.11 Scoping and the use of Traditional Ecological Knowledge (TEK)

Practitioners of EA in intercultural settings are increasingly expected to integrate traditional ecological knowledge (TEK) in their processes. Vincent explains why:

"It is no longer considered acceptable to describe an environment, or to analyze the transformations it undergoes, without paying heed to the knowledge of the people who live in it." (Vincent, in Mailhot, 1993, p. i)

Mailhot defines TEK:

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"Traditional ecological knowledge can be defined as the sum of facts and ideas possessed by a human group about its environment as a consequence of having occupied a particular region over many generations." (vi)

Mailhot notes that TEK is more qualitative than science, and has a symbolic dimension, or conception of the universe embedded in it. This is referred to as the ideological aspect: .. "the body of ideas and concepts which a group possesses concerning the environment...". (p. 11)

Attention to the ideological aspect is important in intercultural EA, as is the cosmological dimension:

"...the world view (also called cosmology) of the group: its own conception of the universe and of the place of human beings and nature within it, as well as its conception of the relationship between all forms of life." (p. 12)

Mailhot (1993) argues that EA itself becomes a conceptual framework that accepts and processes various forms of input. Input based on TEK has, however, been characteristically devalued in EA processes, suggesting both inherent limitations of EA as well as unimaginative application of it - or conscious manipulation of the process by dominant interests.

#### 2.4.12 Scoping as a forum for transformative planning

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Judge (1991) has proposed a typology of decision-making fora for sustainability, arguing that they can be "adaptive", "innovative" or "transformative". Changing development patterns toward sustainability requires venturing into the transformative mode. Decision-making arenas can be "intra", "cross", "inter" and "meta-paradigmatic". Judge argues that we need "integrative metaphors" for transformative planning; these may be derived from the metaphorical visions described above. Since they deploy an instrument that seeks to support sustainability, EA practitioners should be conscious of transformative possibilities and the role of metaphor.

The possibility of transformation in development patterns depends in part on receptivity to alternative forms of expression; this is once again an equity issue, as discussed by Jacobs et al:

"Negotiating these strategies requires that participants have equal access to information and equal access to the fora of discourse, including the media." (Jacobs, Bouchard, & Lépine, p. 24)

Jacobs et al also point out that "an open attitude to the future" is a prerequisite of decision-making for sustainability. (p. 24). In summary, scoping can be a collaborative forum for sustainable development, within limits. In this regard it should seek to achieve a degree of openness and receptiveness to change. As Vincent argues, receptiveness to other knowledge systems increases the prospect of transformation: ".....traditional ecological knowledge promises to give us a startling new perspective on our environment." (Vincent in Mailhot, p. iii) Gariépy (1991) elaborates on the value of an open attitude to the future, and more precisely the given problem definition confronted by the process:

"A third function EIA can perform is to provide an opportunity for various actors in a given environment to go beyond their defensive reaction to a threatening project and ask themselves what shape and content they want their environment to have. If participation remains strictly reactive, the central problem in conducting an EIA remains that of correctly assessing and evaluating impacts with the objective of a



correct technical evaluation of a predictable environment. The alternate view is one of a process whose outcome cannot be foreseen and which the initiator may or may not be able to control." (p. 370)

#### 2.4.13 Scoping and inter-paradigmatic dialogue

Compromise may be achieved in an intracultural and intra-paradigmatic situation where the players share variations of a single world view and metaphorical vision. Here, fundamental value conflicts may prevail but some measure of agreement on a problem definition is usually achievable. This may be much more difficult to achieve and measure in an inter-paradigmatic and intercultural context. On the other hand, relatively few attempts have been made, particularly in environmental conflicts, to address multiple realities, even though a project and its underlying problem definition may be acceptable within one conception of reality (e.g. nature) and unacceptable within another. Sensitivity to the project's context, and the willingness to expand problem definitions are thus prerequisites of any process that holds the possibility of reconciliation.

### 2.4.14 Scoping and viable interdependence

Scoping can contribute to community empowerment, as discussed by Gagnon et al (1993). In order for it to do so it must facilitate learning and meaningful dialogue, while holding the possibility of changing development design. At the same time scoping should enable a better understanding of the environment in which the project is proposed, as well as a better understanding of the ability of the people within the environment to cope with change. Equally important issues to address are the suitability of the project within the environment, and the values, plans and perceptions of the local people. As argued by Mailhot and others, EA is a conceptual framework. It must be applied thoughtfully, skillfully and equitably in order to bring out all the above.

Projects that are designed and implemented without sensitivity to their social, cultural and ecological context are seldom equitable or sustainable. The scoping process should have an informing and contextualizing



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function. It should foster a better appreciation of the context in which the project is proposed by eliciting values and concerns from stakeholders. With the benefit of scoping, project proponents should become more ecologically and culturally literate, and thus be equipped to design and implement more equitable and sustainable projects, or to realize when a modified project or no intervention at all is the most appropriate decision.

While every project entails negative impacts, these effects are better understood and often better mitigated with the benefit of scoping. It is unclear, however, whether or not scoping processes are able to address multiple conceptions of the project's environment or context. In practice it may be very difficult to address multiple realities, all of which are valid within their own cultural, epistemological and cosmological context. Tension and conflict are inevitable when world views collide - when an exogenously derived conception of reality provides the basis for a proposed project that may be deeply foreign to local people.

The principles of participation and equity provide a basis for attempts to reconcile such tensions. Rather than accepting the inevitability of the dominance of the western expansionist paradigm, there is now an imperative to seek equitable solutions to conflicts so that patterns of colonialism and exploitation are not perpetuated. In EA this implies going far beyond a "rationality ritual" and addressing basic rights and values.

This conundrum is inherent to the human-ecological interface, and is implied in a catch-phrase of environmental thought: "the earth is one, but the world is not". Although cultures are diverse, the less sustainable practices of some have often prevailed over the more harmonious practices of others, both within a culture and between cultures, even though this is inequitable. The implication of this syndrome is that the intensity of intercultural development conflicts will only increase and exacerbate local and global ecological problems unless greater cooperation become the norm. Scoping, in this light, is an opportunity for such cooperation to begin since it allows for dialogue and juxtaposition of perceptions, values, philosophies, epistemologies and cosmologies. While not necessarily resolving conflict, scoping should result in a better articulation of the given

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conflict. As Keith & Simon (1987) noted, the acceptability of exogenouslyproposed projects in the north is determined as much by the manner or process in which they are proposed as by the actual substance or nature of the project. Scoping must therefore be equitable, porous, literate in diverse cultures, contextualizing, able to address multiple realities, and inventive. As a medium, it must be adaptive enough to realize its potential as a forum for transformative planning.

# 2.4.15 Toward an analytical and evaluative framework for scoping

While scoping was discussed above primarily with reference to past experience, an elaboration of its potential is now in order. The official purpose of scoping is fairly straightforward, but expectations and agendas vary within the process. The opposite of a rationality ritual, which is not supportive of viable interdependence, is a less predictable exercise in which the outcome is "up for grabs". In practice, a more productive scoping process may feature elements of a rationality ritual, but with competing rationalities present.

Although it is never explicitly recognized in any terms of reference for review panels, the purpose of scoping is to construct a conceptual framework for the subsequent steps in the EA process. This may be accomplished by simply using an existing model or template, or it may be done in a more radical manner, involving the re-examination of assumptions. By definition, a conceptual framework should be tailored to the particular task at hand, although parts of it may be borrowed. In the present case study, existing conceptual frameworks were judged inadequate or inappropriate by the review panels, perhaps because popular EA frameworks tend to reflect a static, rationalistic view. Moreover, while a framework may be used as a model - that of Beanlands & Duinker, for example - the scoping exercise uncovers public concerns and values which may suggest the need for new approaches. In other words, it is inappropriate for EA panels to subscribe exclusively to any particular framework before listening to the public affected by the proposed undertaking. Incorporating public input is a critical step in the development of the framework. With this open, non-deterministic



attitude toward EA and scoping, the exercise may be more responsive, creative, and publicly acceptable.

In practice viable interdependence implies new forms of development. Occurring upstream from changed development is a process that is conducive to its conceptualization and formulation. If these upstream preconditions are built into the EA process, viable interdependence becomes a more likely outcome. The present evaluation thus considers whether or not a scoping process is supportive of that outcome. Development in the north will be more sustainable, equitable and culturally appropriate if key processes such as EA foster local empowerment to reshape projects originating exogenously. This is the "imprint left" by scoping - support, or lack of support for viable interdependence. A scoping process supportive of viable interdependence must feature innovation, "departures from predefined elements" (Gariépy, 1991) or the adoption of novel procedures - an expansion of current practice.

#### 2.4.16 Conclusion

There are few set rules for scoping, and certainly no universal understanding as to its purpose. The process is thus partially responsive to expectations and dynamics. Scoping plays a definition role, allowing the interested public to find out about the proposed project, and proceeds to the identification of publicly-valued environmental attributes, and the design of the assessment portion of the process. It determines not simply what is not known and needs to be studied, but how the studies should unfold. Above all, scoping should determine what methodology, characterizations of resources and impacts and presentation of findings will make sense to stakeholders. In doing so, panelists must consider such issues as acceptable levels of uncertainty, and how to treat imponderables. Scoping in an intercultural setting is a process of making sense amidst several layers of abstractions.

In this collaborative process, panelists act as mediators, balancing values and agendas. Where perceptions of reality differ, panelists must be able to understand the different perspectives. The balancing act features tension



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between the inclination to "point the funnel" more one way or another - to broaden or limit problem definitions, or to filter issues in or out of the process. As managers of the medium, the panelists must create the opportunity for latent opinions and values to be brought out in an equitable forum in which communication barriers are minimized. A sufficient degree of informality is a key element in creating this opportunity.

In summary, scoping is the critical step that provides the opportunity to make EA more than a rationality ritual. By bringing values into the process, a personal dimension and "reality check" is introduced - a counterbalance against the inclination of EA to be overly rational and value-free. Scoping is a process of discovery characterized by surprise. The unpredictability of scoping implies the need for, among other attributes, openness, cultural literacy, and interpretive abilities. These, and other critical elements are reflected in the evaluative framework proposed in section 2.5.

# 2.5 EVALUATIVE FRAMEWORK

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In this section the conceptual framework of the thesis is refined into a set of experimental criteria and procedures against which the Great Whale scoping process may be analyzed and evaluated in terms of its contribution to viable interdependence. The intent of the evaluation is not to arrive at a definitive, quantitative "scorecard", but to conduct a more impressionistic and focused exercise. General lessons about the potential role of EA in support of viable interdependence are drawn from the evaluation, and some prescriptive recommendations are proposed.

The earlier discussion on methodology (section 1.4) defined the methodological nature of the evaluation conducted in this thesis. It was established that the evaluation is experimental, predominantly qualitative, and conceptual in nature. This section sets out with more specificity the evaluation criteria and procedures that are used. First, however, methodological underpinnings are discussed; key evaluative frameworks for EA are reviewed; and evaluative criteria are proposed. The central task of this evaluative framework was to distill from research a set of specific process-oriented criteria which provide the basis of evaluation and can be linked to higher level process-oriented and substantive criteria. A related task was the development of specific analytical and evaluative tools which are appropriate to the case study.

### 2.5.1 A brief review of selected EA evaluations and their implications

The evaluative criteria and procedures in this thesis derive from the work of several theorists, including Gariépy (1991); and McAllister (1982); and draw more heavily from the work of Sadler (1990); and Gardner (1990). The latter two involved experimental evaluations of EA from a Canadian perspective. Gardner's method was designed for the analysis and evaluation of EA frameworks. Sadler's method, as discussed in section 1.4, is appropriate for a global evaluation of a single environmental assessment process, and was not outcome-oriented or prescriptive. The present evaluation is a blend of several approaches. The method, in general terms, consists of constructing a framework for scoping in support of viable interdependence, and then evaluating how well the case study adhered to the criteria, as determined through specific questions and analyses.

As established earlier, evaluations of EA vary significantly depending upon the goals and expectations of the evaluator. In a conceptual evaluation, a philosophical or ideological viewpoint (e.g. sustainability; equity, or, in the present instance, viable interdependence) provides the underlying basis of evaluation. In a conceptual evaluation, EA is "...elevated from its conventional role...to a mechanism for expressing a particular perspective on human-environment interactions." (Spalding et al, 1993, p. 68). In the present evaluation an explicit choice is made to conduct a conceptual evaluation since, as argued previously, sustainable development is an overarching goal inspiring this thesis, while viable interdependence is the particular perspective on human-environment interactions. "Expanded EA" is thus a point of departure in constructing a framework that seeks ultimately to support viable interdependence.

# 2.5.2 Examples of conceptual evaluations of EA

An example of a conceptual evaluation is that of McAllister, who proposed a set of evaluation principles and criteria reflecting "social values" and particularly "democracy". Among the things to watch for in a public environmental assessment process, McAllister argues, are "the people's values", the principle of "absolute equality", "misuse of power" and "tyranny over the minority". With respect to citizen participation, he asks:

"Are impact categories and impact measurements selected to promote their common understanding? Are technical terms avoided when common-language counterparts are available? Are technical concepts and relationships, critical to an understanding of the evaluation, explained so that the average citizen can understand them?.....Does the evaluation facilitate the process of compromise, when appropriate?" (p. 39)

The Canadian Environmental Assessment Research Council (CEARC, 1988), in its report entitled: "Evaluating Environmental Impact Assessment:

An Action Prospectus", sought to define various criteria for evaluation, including that of "fairness':

"Fairness criteria are satisfied if, for example, all interested parties (stakeholders) have equal opportunity to influence the decision before it is made....". (p. 2)

Of course, fairness as defined above would likely not be achieved in an intercultural context unless EA were functional and meaningful in the culture of the stakeholders - prerequisites for influence. Moreover, CEARC issues a caveat here:

"Achievement of 'fairness', as defined above, is usually difficult to assess, both because it is value-driven and because information is not available."

(p. 3)

One can try to develop a standardized methodology for evaluation, therefore, but it must be flexible. In a conceptual evaluation, the process is emphasized more than the product, but not to the exclusion of the latter. By taking a process view both EA and viable interdependence are thought of as potentially complementary processes; the operative question becomes whether or not this potential is realized in the case study.

# 2.5.3 Sadler's evaluation of BEARP

Sadler's preliminary goal-attainment evaluation of BEARP is an important comparative case study, since he developed a comprehensive framework and applied it to a northern intercultural EA process. His terms of reference for evaluation included: "...to analyze the operational effectiveness of review procedures, especially those that represent departures from conventional practice"; and "...to consider the contribution of the Panel's report to environment and development decision-making" (Sadler, 1990, p. 3) Among Sadler's elements of analysis is "suitability of measures for involving publics, and incorporation their concerns", with the operative criterion being "responsiveness". Within Sadler's comprehensive evaluation, therefore, there are elements which are relevant to the present one. Sadler notes some limitations, including that it is not possible to draw any definitive conclusions about the contribution of EA to sustainable development, even in a comprehensive evaluation: "...the contribution of the report, as an input to decision-making, may not be immediately evident." (Ibid, p. 10) He argues that the educational impacts of a public review are difficult to evaluate, even with the use of longitudinal studies. (Ibid, p. 13) Sadler concludes, however, that it is possible to gain a better understanding of the forces influencing goal-attainment through evaluation, even when relying on "soft or experiential data to diagnose problems and potential improvements". (Ibid, p. 12) He cautions that public reviews are processes which participants enter with diverse attitudes and leave with different experiences, making any goal-attainment evaluation inherently subjective. The same constraints are also true of a conceptual evaluation. Gariépy (1992) supports this idea:

"When it comes to trying to assess the extent of overt public influence, public participants can be said to have made gains if demands voiced by some participants can be correlated with changes to the projects made subsequently at the authorization stage......Gauging this function poses a methodological problem; it is impossible to say with certainty that the changes were the direct and exclusive result of public consultation." (Gariépy p. 368)

The work of Sadler, Gariépy and others involved in evaluating specific EA processes suggests some inherent limitations. It is difficult, if not impossible, to attribute development and environmental outcomes directly to the influence of EA. For the present thesis, this limitation implies a greater focus on specific process criteria, which, while less ambitious, are more immediately measurable. While quite specific, these criteria are nonetheless meaningful because they are pathways to their more general counterparts.

#### 2.5.4 Gardner's evaluation of EA frameworks

An alternative to the analysis of a single EA process is the evaluation of general frameworks for EA. For example, Gardner (1990) proposed criteria for judging the effectiveness of EA in achieving sustainable development.

Her approach was to first distill principles of sustainable development from the literature; to describe the principles; to categorize them into substantive and process-oriented categories; and then to assess selected EA frameworks in terms of their adherence to the principles. As in the present thesis, the robustness of the principles or criteria comes from the diversity of the sources surveyed and literature reviewed.

Gardner describes how she selected and categorized principles for evaluating EA frameworks in pursuit of sustainable development:

"The eight principles can also be interpreted as objectives, criteria, preconditions, desirable characteristics, components, parameters, or guidelines for sustainable development. In the following analysis, they are applied as premises that approaches to decision-making for resource management have to support, or at least not contravene, in order to steer a course toward sustainable development. The principles are divided into two categories: *substantive* and *process-oriented* (see Table 1). Substantive principles are value-oriented; they describe the ends of decision-making. These are the fundamental goals addressed by approaches to assessment, planning, and management for sustainable development. Process principles describe the structure, context, and processes of decision-making that are necessary to the pursuit of sustainable development.

Although this categorization of principles is not definitive, the successful pursuit of sustainable development certainly relies on a mixture of substantive and process-oriented considerations." (p. 38 in Jacobs & Sadler, 1990).

Gardner notes that the set of criteria are complementary, and not intended to be exhaustive:

"Each of these principles is a prerequisite to sustainable development. While some may conflict with each other in current practice, in the terms of sustainable development they are profoundly interdependent and they cannot be ordered by priority." (Ibid, p. 42)

Gardner argues that any detailed application of her criteria will promote sustainable development; in and of themselves they are not capable of bringing about sustainability: "....a reasonable level of *commitment* to substantive principles is required for sustainable development, and that adherence to processoriented principles cannot be expected automatically to engender such commitment." (Ibid, p. 50)

Gardner's work provides an example of an evaluation of EA frameworks in support of sustainable development, and it develops categories of substantive and process-oriented criteria which are relevant to the present analysis and evaluation. In this thesis, although the focus of evaluation is an EA process rather than an EA framework, Gardner's approach is still a relevant model in terms of its development of evaluative criteria.

# 2.5.5 Nature of the present evaluative criteria

The criteria that form the evaluative framework described below are similar in nature to those of Gardner. They are distilled from literature, they feature some redundancy and non-preclusivity, many are generic, and they are categorized in terms of substantive and general process-oriented criteria. They are then further refined into more specific process-oriented criteria which provide the specific basis of evaluation. While they cannot bring about viable interdependence by themselves, it is argued that a reasonable level of commitment to them will support viable interdependence.

In summary, the work of Sadler, Gardner, Gariépy and others, in addition to the theorists discussed earlier in section 1.4, provides a background and some lessons against which the analytical and evaluative elements of this thesis are proposed. The evaluative criteria are proposed next, after which analytical tools and procedures are described.

# 2.5.6 Evaluative criteria

Substance-oriented, general process-oriented, and specific process-oriented criteria are proposed and characterized in this section. The evaluative criteria are derived from a literature review and from participant observation in the case study, along with input from experts and other participants as derived from unstructured interviews. The criteria flow from the problem statement of this thesis (section 1.2), and from the conceptual framework discussions on viable interdependence, EA and scoping (sections 2.2-2.4). The criteria are judged to cover the most significant concepts relating to the interface between EA, scoping, sustainability, equity and intercultural development planning. They are thus by definition interdisciplinary and cross-cutting. They are generally prescriptive - they are about things that should be done. The evaluative criteria are summarized below in Table I (p. 89).

## **Table I: Evaluative Criteria**

Substantive	Process-oriented (general)	Process-oriented (specific)
A • Culturally appropriate development	F • Equity and respect	L • Appropriate balance of formality/informality
-	G • Transparency and mutual	
<ul> <li>B • Appropriate scale, timing, and pace of</li> </ul>	understanding	<ul> <li>M          <ul> <li>Receptive to multiple knowledge systems and</li> </ul> </li> </ul>
development	H • Non-deterministic	patterns of expression
C • Equitable development	I • Displacements of power/influence	N • Interpretive capacity/function
D • Ecologically sustainable		
development	J • Transformative	<ul> <li>Facilitates inter- paradigmatic dialogue</li> </ul>
E • Development that	K • Unlocks creative forces in	1 - 8
promotes community self- reliance	community	P • Problem-setting function

## 2.5.6.1 Substance-oriented criteria

Substantive, or outcome-oriented criteria are proposed and discussed below. Generally speaking, they relate to "product" more than "process". Together the substantive criteria amount to a description of viable interdependence in practice. They describe attributes or outcomes of sustainable and equitable development, and thus remain elusive at this relatively early stage. Since they remain high-level, a practical way to proceed in the pursuit of viable interdependence is to first pursue specific process-oriented criteria - more modest, attainable objectives that can lead to higher goals.



Each of the five proposed substantive criteria are discussed below.

# A. Culturally appropriate development

As argued in section 1.2, there is a history of culturally-inappropriate, southern-imposed development in Canada's northern regions. The Inuit Circumpolar Commission (ICC) has proposed criteria for culturally appropriate development, beginning with principles:

"Culture, including all of its creative, spiritual and material aspects, constitutes the foundation upon which a people thrive. Culture provides meaning and identity to community life." (ICC, Principles and elements for a comprehensive Arctic Policy, 1992, p. 99)

The ICC describes Arctic culture in terms of its strong connection to the land:

"Many of the elements that contribute to the development of a culture are dictated by the natural forces and processes that are unique to the environment upon which that culture is based. In the Arctic, the traditional institutions, languages and other means of communication, and ways of life of aboriginal peoples are manifestations of their profound relationship with, and dependence upon, the northern environment." (Ibid, p. 99)

The ICC concludes that culturally appropriate development is a precondition of equitable north-south relations:

"Inuit culture must be made an essential focal point when development decisions are taken concerning Arctic regions, or else undesirable assimilation will continue to be the result. Exclusion of Inuit from the processes of Arctic development only serve to compound the pressures of exploitation that they face." (Ibid, p. 102)

Deriving from these principles, essential characteristics of culturally appropriate development include:

- "cultural capital" is not depleted or eroded as a result of development
- endogenous values are reflected in development
- culturally appropriate technologies are used

An indicator of culturally appropriate development might be the survival of distinct identity and values over time in a given culture or community. Culturally appropriate development may feature many other characteristics and indicators. The objective here is to identify it as a high-level substantive criterion, so that, at a minimum, north-south development patterns and decisions that are antithetical (i.e. culturally inappropriate) can be addressed in EA processes.

# B. Appropriate scale/timing/ pace of development

As discussed earlier in this thesis, the scale, timing and pace of development can be as critical to stakeholders as the nature of the projects themselves. The ICC makes this point:

"Inuit have the right to decide their own priorities for development in or affecting their traditional territories...The timing, level and pace of development projects proposed by state governments and others must be acceptable to the Inuit affected." (ICC, p. 49)

The same point is made in *Caring for the Earth*, with respect to development affecting native people:

"Ensure that the timing, pace and manner of development minimizes harmful environmental, social and cultural impacts on indigenous peoples; and that indigenous peoples have an equitable share of the proceeds." (*Caring for the Earth*)

Key considerations include the risk associated with development, the duration of benefits, the distribution of benefits and costs and the level of conflict generated by development (Keith & Simon, 1987, p. 213).

More specifically, the criterion implies the following:

 With respect to appropriate scale, in a phased approach to development, a number of small projects following each other is usually preferable to a single mega-project, since they allow for periods of adaptation and adjustment.

- Smaller scale projects, phased over a longer period of time, offer fewer apparent risks and provide greater social learning (Keith & Simon, 1987).
- Appropriate timing of development allows consideration of factors such as training of the local labor force, and sufficient time for environmental impact studies.
- An appropriate pace would allow for a region's capacity to absorb impacts and, for example, to prepare for a project's eventual decommissioning in order to avoid boom and bust syndromes.

# C. Equitable development

Equity is both a substantive and process-oriented criterion. As the former, it is the result or outcome of an equitable process. An EA process can be thought of as a forum that makes resource allocation decisions or recommendations, influences north-south relations, and plays a role in affirming visions of society. Norgaard discusses the issue of equity with reference to development and native peoples:

"Social scientists are beginning to formally document how colonization followed by efforts at Western style development broke down traditional mechanisms of managing resources. Many have argued that the new institutions and technologies which replaced the earlier cultural capital hastened the rates of exploitation, assuring that there would be less to transfer." (Norgaard, 1992, p. 107)

Equity can be defined in intercultural or intergenerational terms, and both are relevant to this criterion.

In terms of characteristics, development might be considered equitable if it:

- leaves stakeholders with the ability to manage effects and derive benefits, with acceptable degrees of risk
- addresses the distribution of risks and benefits in an intergenerational time frame, ensuring the transfer of natural and cultural assets to future generations

does not preclude alternative development paths or scenarios, and does not preclude future generations from pursuing them

# D. Ecologically sustainable development

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As discussed earlier in this thesis, ecologically sustainable development is an overarching or fundamental criterion of viable interdependence. Sustainable development is still generally in a definition phase, although there is some agreement with respect to its basic nature and characteristics. It remains a high-level goal, or ideal.

The key characteristics or conditions of ecologically sustainable development include:

- that development not deplete ecological capital
- that development can be carried out indefinitely without irreversibly depleting ecological capital

Two key indicators of sustainability could be biodiversity and ecological integrity.

# E. Development that supports community self-reliance

Community self-reliance is a cornerstone of viable interdependence, allowing communities to retain a measure of control over their destiny. An ideal scenario of viable interdependence would feature two prosperous economies flourishing in parallel, with equitable trade where desired. In a northern context, community self-reliance involves:

- a measure of political self-determination, possibly as an outcome of land claim settlements
- local control over decision-making processes
- maintenance of existing diversity and choice of lifestyles
- maintenance or strengthening of community values and identity
- continued viability of local economies



Indicators of community self-reliance could include:

- evidence of less dependence on the southern economy, more local autonomy
- use of the territory as opposed to passivity; maintenance of language and culture; local initiative rather than dependency; and absence of social pathology and violence (Arcand, personal communication, 1992)
- persistence of a mixed and/or informal economy
- avoidance of sudden economic change, and continuity in land use and traditional activities (Kemp, 1992)

# 2.5.6.2 General process-oriented criteria

As discussed earlier, conducting EA and scoping in intercultural settings poses significant challenges. It was argued that in order to be effective in an intercultural setting, a scoping process has to be broadly accessible and transparent; responsive and empowering to intervenors; capable of addressing competing world views; creative; characterized by fairness, comprehensiveness and efficiency; more analytic than encyclopedic; predisposed to accommodating an adequate, but not infinite problem definition, and therefore not committed to any particular outcome; and receptive to both quantitative and qualitative input. Key general processoriented criteria follow from these principles:

## F. Equity and respect

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As argued throughout this thesis, supported by various theorists and practitioners, and proposed specifically by Vincent (1993), equity and mutual respect within the EA and scoping process are essential. Vincent's criteria for public consultation in northern regions flow from principles of equity and respect. Equity and respect, or lack thereof, can be manifested in the form, style and intent of consultation; and receptiveness to cultural traditions, knowledge systems, and patterns of expression. Generally speaking, it relates to the efforts made to make the EA and scoping process meaningful and inclusive to stakeholders on their own terms.

## G. Transparency and mutual understanding

As a southern, quasi-scientific, technical process, EA can be inaccessible to northern stakeholders unless it is adapted to local cultures and circumstances. EA practitioners are thus challenged to ensure sufficient transparency and mutual understanding throughout the process (e.g. Vincent, 1993; Jacobs, Brown & Mulvihill, 1993). Examples include common understanding of assessment procedures, impact criteria and categories; accessibility of all literature produced in the process; the avoidance, where possible, of technical terms where non-technical language is adequate; and skillful use of interpretive and translative resources.

Key indicators of transparency and mutual understanding include the level and quality of participation in the process, and the absence of confusion regarding the intent and purpose of the process.

# H. Non-deterministic

As argued earlier, EA, scoping and public consultation are meaningful to the extent that they hold the possibility of stakeholder influence in decision-making. Thus, a scoping process should not be a "rationality ritual", but rather a relatively open process subject to a range of possible outcomes. Its participants should therefore have an open attitude to the future; and its practitioners should be flexible and not committed to any particular outcomes. This quality in a scoping process can be termed "nondeterministic". Mumford describes a similar ideal, that of "organic planning":

"Organic planning does not begin with a preconceived goal: it moves from need to need, from opportunity to opportunity, in a series of adaptations that themselves become increasingly coherent and purposeful, so that they generate a complex, final design, hardly less unified than a pre-formed geometric pattern." (Mumford, 1967, p. 302, The City in History)

# I. Subject to displacements of power/influence

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As discussed earlier, EA is ideally an empowering process for stakeholders. The process of empowering and learning can also change relationships



among participants, involving the acquisition of greater influence and power by some, while others relinquish it. Vincent describes consultation as:

"...a context created for influence over decision-makers."(p. 14) Tryzna & Gotelli (1990) describe the empowering effect of "collaborative problem-solving":

"The power of collaborative problem-solving processes tends to lie in their very subtle reshaping of relationships, reshaping of power, reshaping and expanding information flow." (p. 53, Tryzna & Gotelli, 1990)

Gagnon et al (1993), for their part, discuss community empowerment through social impact assessment, which involves: "appropriating the formal SIA procedures to community priorities"; and "exercising increased levels of community control over technical inputs into SIA inquiries" (Gagnon et al, 1993).

Displacements of power and influence therefore mean that:

- relationships are reshaped
- information flows are expanded, resulting in learning and capacity building for stakeholders
- the process is not dominated by the proponent
- power is shared, and horizontal partnerships and alliances are formed
- the process involves mutual/social learning, and stakeholders evolve from a position mystery to mastery with respect to the issues (Gariépy, 1991)

# J. <u>Transformative</u>

Viable interdependence implies development projects that are more sustainable and equitable within a northern context. EA and scoping processes must therefore have the capacity to address the unsustainable and inequitable aspects of project proposals, and steer stakeholders and proponents toward the design of more mutually acceptable forms of development. This demands a creative and transformative function and innovative use of the resources available in the process.

# K. Unlocks creative forces in community

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The transformative capacity of the process depends largely on the ability of the process to tap the creative forces of the stakeholders. Gagnon et al (1993) discuss this function in terms of the process being "participatory, interventionist, responsive to local dynamics" (Gagnon et al, 1993). This requires, they argue, a high level of community participation in impact research, providing:

"...a window of opportunity to pursue a community development agenda throughout the impact assessment process." (p. 243)

In order to unlock the creative forces within the community, the EA/scoping process must make optimal use of the available knowledge and resources of stakeholders.

# 2.5.6.3 Specific process-oriented criteria

Flowing from the substance and general process-oriented criteria proposed above, specific process-oriented criteria are now proposed. The latter are intended to be experimental, and sufficiently measurable to be applied to the case study. As a set of experimental criteria, they, along with their application to the Great Whale case study, constitute the original contribution of the thesis. They are elaborated in each of the subevaluations in chapter 4. The key components or characteristics of each are summarized below.

# L. Appropriate degree of formality/informality

Much of EA involves formal consultation, data gathering and analysis. As argued earlier, however, excessive formality can be counter-productive in intercultural EA. There is a need to find an appropriate balance of formality and informality for the process. Gagnon et al (1993) view the adaptation in terms of "...extending the formal procedures into less formal settings, where avenues for community influence are greater" (Gagnon et al, 1993). In the case of Great Whale, as will be discussed in section 4.2, different levels of formality were needed in the various northern and southern locales of scoping.

## M. Receptive to multiple knowledge systems and multiple patterns of expression

The need for flexibility and informality in northern scoping hearings arises partly from the recognition that intervenors tend to express themselves in different ways that might be the case in southern settings, and their input may derive from distinct knowledge systems. Knowledge, in effect, is diverse, non-hierarchical and decentralized. As Vincent (1994) points out: "It is easy to imagine that......(Inuit/Cree) tradition dictates a certain form of intervention." (p. 37) In order to be receptive to these local interventions, time needs to be taken in order for third party to "make itself aware of the public and its ways of expressing itself". (Vincent, 1994, p. 51) Familiarity with the methods of communication of the other, sensitivity to different ways of learning, acquiring and transmitting knowledge and a character of scoping hearings that are congruent with local cultures and customs are all required. Knowledge is required of EA panels to decode and translate messages transmitted by the public.

It is necessary for scoping panels to:

• have a measure of intercultural and literacy

• be able to integrate diverse knowledge systems, including traditional ecological knowledge (TEK)

• be receptive to metaphorical or symbolic input that may be difficult to formulate into EIS guidelines

## N. Interpretive capacity or function

The challenge of integrating diverse knowledge, expressed in various ways, requires that panels and their support staff have interpretive abilities. In order to make the process receptive, considerable translation, decoding and synthesizing of scoping input must take place. The interpretive function is needed most at the EIS guidelines development stage, where panels are charged with reducing thousands of pages of public hearings transcripts into a single, unifying framework. Preparatory work on the part of panelists may enhance their interpretive abilities - in practical terms, this implies taking time to familiarize themselves with diverse stakeholders and their modes of expression.



## O. Facilitates inter-paradigmatic dialogue

In addition to processing scoping input based on diverse languages and epistemologies, panelists will also be challenged to integrate competing world views, or paradigms. An intercultural scoping process often features the interplay of multiple realities that are culture-based; these include ideas of nature, development, benefits, impacts, space and time, and appropriate technology. The Kativik Regional Government supports this, arguing for: "....un plus grand respect et une meilleure comprehension de chacune des visions et conceptions de ce territoire." (Kativik Regional Government, 1992, p. 14) A scoping process will be richer and potentially transformative to the extent that panelists are able to facilitate inter-paradigmatic dialogue.

## P. Problem-setting function

As argued earlier, an EA process that begins with an established, inflexible problem definition is likely to be an unproductive "rationality ritual". Scoping must hold the possibility of expanding or reshaping the problem definition(s) which surround the process at the outset. Panelists perform a balancing act between the inclination to "point the funnel" more one way or another - to broaden or limit problem definitions, or to filter issues in or out of the process.

A scoping process that features a problem-setting function is one that:

• considers questions, assumptions, problems, and conclusions framed within more than one paradigm

• is not reactive to the project proposal only, but is open to broader issues as well

- addresses "upstream" issues
- features debate of fundamental issues

#### Summary

The preceding section proposed the evaluative criteria. After the case study is described in chapter 3, it is analyzed in chapter 4 with reference to the specific process-oriented criteria which are supported by sub-criteria,



questions and indicators. The latter are elaborated in each of the subevaluations.

# 2.5.7 Interrelatedness of specific process-oriented criteria

The evaluative framework functions on the basis of links among criteria, and a "process" view of viable interdependence. While not listed in order of priority, the specific process-oriented criteria (L - P) are somewhat sequential. The first criterion (appropriate degree of informality) may be viewed as a pre-condition for the second criterion (receptivity to multiple patterns of expression). This, in turn, implies a need for the third criterion (an interpretive or mediating capacity), which, once again, sets the stage for the fourth criterion (facilitation of inter-paradigmatic dialogue). Finally, the first four criteria may together comprise pre-conditions for the fifth criterion (problem setting function).

## 2.5.8 Building viable interdependence from process to substance

The links between the three sets of criteria are many – they are profoundly interrelated. Some of the links are fairly obvious. For example, it is likely that a vigorous problem-setting function (P) would support a transformative (J) and non-deterministic process (H), since the former would encourage the exploration of fundamental or upstream issues. Likewise, it is likely that receptiveness to multiple knowledge systems and patterns of expression (M) would help unlock creative forces within a community (K), and would support more culturally-appropriate development (A). While making these links involves leaps, the analysis of the case study through this framework will likely substantiate the connections among these levels of criteria. On the other hand, the nature and strength of the links can only be determined through experimentation and it is equally likely that unexpected relationships will emerge.

Links between specific and general process-oriented criteria are most likely to be straightforward, while the latter are generally likely to function as a bridge between the specific process-oriented and the substance-oriented criteria - the lowest to the highest level. Links between process-oriented



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and substantive criteria are likely to be somewhat tentative in some cases, since, as argued earlier, sustainable and equitable development remain relatively preliminary goals. In general, however, it is argued that the path toward viable interdependence begins with process and proceeds to substance in a mostly incremental, and perhaps occasionally transformative fashion. In the present experimental evaluation, the criteria are judged to be critical to the pursuit of viable interdependence. They are not necessarily the "right" criteria, which will only be determined through the accumulation of experience.

# 2.5.9 The analytical and evaluative procedures

The experimental evaluation ventured in this thesis is comprised of five sub-evaluations, each dealing with one of the specific process-oriented criteria (L - P). The analysis and evaluation process began with the refinement of the criteria into questions, sub-criteria or indicators which can reasonably be measured on the basis of the available data. These have been introduced in this section, are summarized in Table II below (p. 102), and are elaborated respectively in sections 4.2 - 4.6. Each of the sub-evaluations is a study in and of itself; taken together in their interrelatedness they constitute a robust experimental evaluation.

## Analytical approaches and tools

Use is made of a variety of tools and approaches in the analysis. General and specific procedures are required as analytical and evaluative tools in order to assess whether or not the evaluative criteria are supported in the case study. The analysis included a general review of the Great Whale scoping transcripts and EIS guidelines in their entirety, as well as attendance at several of the hearings for the purposes of participant observation. (Prior to the analyses in Chapter 4, the Great Whale EA and scoping process is described in detail in Chapter 3, along with key elements such as the public hearings transcripts and the EIS guidelines.) A summary of the elements of analysis, analytical tools and key evaluative questions appears in Table II.



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# Table II: Summary of analytical approaches

Research Theme	Elements of Analysis	Analytical Tools	KeyQuestions
4.2 Appropriate	- hearings	- observation	- Was the balance appropriate?
balance of	- transcripts	- qualitative	-Were adjustments and adaptations made as
formality and		judgment	appropriate in northern and southern hearings?
informality			- Were stakeholders comfortable with the process?
			- Was the process formal enough (due process)?
4.3 Receptive to	- panel	- observation	- Was the process receptive to multiple knowledge
multiple	- support office	- quantitative	systems, and, in particular, TEK?
knowledge	- hearings	and qualitative	- Were there any barriers or constraints?
systemsand	- transcripts	analysis of	- Was the process receptive to multiple patterns of
patterns of	- EIS guidelines	transcripts	expression?
expression		and EIS	- Did the panels favour any particular knowledge
		guidelines	systems or patterns of expression, and de-value
		- analysis of	others, as evidenced by the hearings and the EIS
		metaphorical	guidelines?
		input in	
		hearings	
4.4 Interpretive	- panel	- observation	- Do the EIS guidelines reflect the scoping input, and,
capacity/	- support office	- qualitative	in particular, do they interpret and incorporate the
function	-guidelines	comparative	non-guideline specific input?
	- hearings	and conformity	- How well were panels prepared and equipped to
	- transcripts	analysis of	interpret non-guideline specific input?
		transcripts and	
		EIS guidelines	
		- review of	
		process	
		documents	

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4.5 Facilitates	- panel	- observation	- Did a dialogue take place in the process? If so, was
inter-	- transcripts	- qualitative	it facilitated?
paradigmatic	-guidelines	analysis of	- If a dialogue took place, was it interparadigmatic?
dialogue		transcripts,	- Did competing paradigms become reconciled in the
		guidelines	process?
		-paradigm	
		typology	
4.6 Problem-	- all elements of	- observation	- Did the scoping process influence the problem
setting function	process	- qualitative	definition(s)?
	- transcripts,	analysis of	- Did the prevailing problem definition evolve
	guidelines	transcripts,	toward one supportive of viable interdependence?
		guidelines	
		-problem	
		definition	
[		typology	

# Key data sources and elements of analysis

Key data sources and elements of analysis are described at length in Chapter 3 and analyzed in Chapter 4; an overview is provided here in order to orient the reader to these subsequent steps. The analysis applies to the scoping process as a whole, with particular emphasis on the public hearings, which were the main element of the process. All participants in the process are subject to analysis; these include the intervenors, aboriginal organizations, advocacy groups, the chairmen, the panelists, support staff, the Public Review Support Office, secretariats, government departments responsible for the review, translators, community representatives, consultants and others. Particular emphasis is given to those directly responsible for shaping and conducting the process: the review panels and their support staff. As noted above, all of these analytical elements are described in Chapter 3; they are merely listed here for orientation.

The focus of analysis and evaluation varies slightly with each criterion, with the constants being the hearings and review panels. In some cases it is relevant to focus on the Public Review Support Office. Likewise, the key



data vary with each criterion: in most cases the EIS guidelines are central, along with the hearing transcripts and written submissions. Since everything in the process fed into the guidelines, they are key data. Finally, as shown in Table II and explained in each sub-evaluation, the analytical tools also vary for each criterion.

For example, in section 4.3, which addresses the receptiveness of the process to knowledge systems and patterns of expression, a qualitative conformity analysis is used. In this analysis, the content of the EIS guidelines is compared with the content of the scoping transcripts with the objective of determining the responsiveness of the former to the latter. A qualitative analysis of metaphorical, non-guideline specific scoping input was used as a complementary tool. The rating system used in the conformity analysis as a basis of evaluation is explained below. For another example, section 4.5, which addresses inter-paradigmatic dialogue in the scoping process, applies a framework and typology developed by Judge (1990). Judge's framework is combined with a content analysis of the scoping transcripts. Finally, section 4.2, which addresses the balance of formality and informality in the scoping process, relies mainly on participant observation and the application of analytical questions derived from the literature review and other case studies. In summary, the analytical tools vary with each sub-evaluation. They are discussed further below.

## Analysis of scoping transcripts

The scoping transcripts, along with the EIS guidelines, are central to the analysis and evaluation. The input of participants in scoping comprises a kind of conceptual framework of EA - one that is combined with the values and expertise of the EA panels when it comes to writing guidelines for the proponent's EIS. This is supported by Sadler:

"The terms of reference of EA reviews, for example, are the subject of differing initial interpretations by panel, proponent, and participants; and subsequently their role and scope are shaped to a certain degree by the tenor and force of interventions." (Sadler, 1990, p. 14)



The transcripts were reviewed in their entirety, a selective analysis and pulling out of values and elements was performed, and key interventions by stakeholders were noted. This qualitative analysis is in some instances supported by a quantitative analysis, which involves a tallying of elements in the EIS guidelines and/or scoping transcripts.

In some cases a modified conformity analysis of the EIS guidelines or hearings transcripts was appropriate. With this approach the presence or absence of certain values or elements was gathered as evidence, as may their priority or emphasis; degree of rigour; departures from conventional practice; or any other factor that may support or detract from a criterion. Along with conformity analysis, content is analyzed in a more qualitative way. For example, while the former approach might seek to determine whether or not an element appears in the process, the latter is aimed at judging its significance.

#### Evaluative ratings

The evaluation begins at a general level with a conformity analysis of the EIS guidelines. This conformity analysis is a first step in determining how the guidelines generally support the criteria, and which criteria in particular are supported or neglected. The objective of the analysis is to determine whether, or to what extent, the guidelines support or reflect the evaluative criteria proposed in section 2.5. The 634 individual sections of the guidelines (each constituting a discrete requirement of the proponent's EIS) were reviewed. This analysis is summarized in section 4.0 in a "Master Evaluative Table", which is then adapted to each of the sub-evaluations in sections 4.2 -4.6.

A simple rating system was required to express, in relative terms, how responsive the EIS guidelines were to the scoping input. In the conformity analysis, shown in the "Master Evaluative Table", sections of the EIS guidelines which were judged to reflect or support the evaluative criteria (A - P) were noted and assigned a relative score of 1-3. A score of "1" (•) signifies a moderate level of support; "2" (••) a more substantial level of support; and "3" (•••) a very strong level of support for the criterion. All



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three levels of the evaluative criteria were considered in the analysis substantive, process-oriented (general), and process-oriented (specific) although, as discussed in the Conceptual Framework of this thesis, the latter are the focus of evaluation since they are viewed as pathways to the more general criteria. The rating system is useful in identifying patterns in terms of stakeholder concerns and values that were recognized and supported by the panels.

The scores are relative and somewhat subjective, but reasonably straightforward. A score of three (••••), which indicates a high level of responsiveness, signifies that a particular element is valued and emphasized explicitly in the EIS guidelines. A score of one (•) means that a stakeholder concern noted in the scoping transcripts is noted in the guidelines but not emphasized. The ratings, therefore, are assigned on the basis of how strongly and explicitly the EIS guidelines support given concerns and values. Since this is often quite straightforward, subjectivity is minimized. It can be determined objectively, for example, that a concern is ignored or emphasized in the guidelines. A degree of relativism and subjectivity comes into play with the middle score of two (••). The scores are "calibrated", meaning that a score of "2" for one element, for example, has equal significance to a similar score for another element. The ratings are meaningful in an individual and aggregate sense. They can show, in summary form, which particular values (e.g. intercultural perceptions of valued ecosystem components; cumulative impacts; sites of sacred or spiritual significance; access to land or resources; etc.) are supported in the guidelines. In an aggregate sense, the scores are an indicator of the overall responsiveness of the scoping process - they can show, for example, patterns in terms of whether certain values are consistently supported or not. Evaluations and conclusions can be drawn from these patterns - e.g. a pattern of receptiveness to traditional ecological knowledge, or a pattern of skillful interpretation of non-guideline specific input. These conclusions are robust and meaningful since they derive from an exhaustive analysis of the scoping transcripts and EIS guidelines, and from participant observation in the process. Finally, the sum of the five sub-evaluations constitutes the basis of the synthesis and overall evaluation in Chapter 5.



# 2.5.10 Summary

In this evaluative framework, the methodological underpinnings; evaluative criteria; and analytical/evaluative procedures have been described. The case study is described next in Chapter 3, after which it is analyzed in Chapter 4 and evaluated in Chapter 5.

# CHAPTER 3 DESCRIPTION OF THE GREAT WHALE PROJECT AND ITS SCOPING PROCESS

In this chapter, an overview-level description of the case study is offered, dealing with the proposed Great Whale River Hydroelectric Project; the context in which it was proposed; the issues and controversies that surrounded the case; and the environmental assessment and review process that was created and partly carried out. A more analytical description follows in Chapter 4, focusing on key elements of the case study that are of significance to the evaluation being undertaken in this thesis. In the overview-level description, only the most salient points are included in order to orient the reader to the case study. More emphasis is placed on the analytical discussion in Chapter 4, which deals directly with the data that are derived from the case study.

# 3.1 KEY ELEMENTS OF THE CASE STUDY

The salient aspects of the case study, as identified above, are the general nature of the Great Whale project; its history and context; its intercultural aspects; and the scoping process that unfolded. The technical aspects and specific issues associated with the project, although higher profile in terms of media coverage, are less relevant to the case study. Although each resource use conflict and each mega-project have their unique characteristics, they are also rather similar in many ways. The significance of the case study for this thesis is that it represented a prime opportunity for the pursuit of viable interdependence through EA. The "process" under examination is therefore that which took the public and the review panels from the beginning of the public consultation design through the public hearings, other opportunities for public comment, and culminated with the issuance of the EIS guidelines by the review panels and administrators.

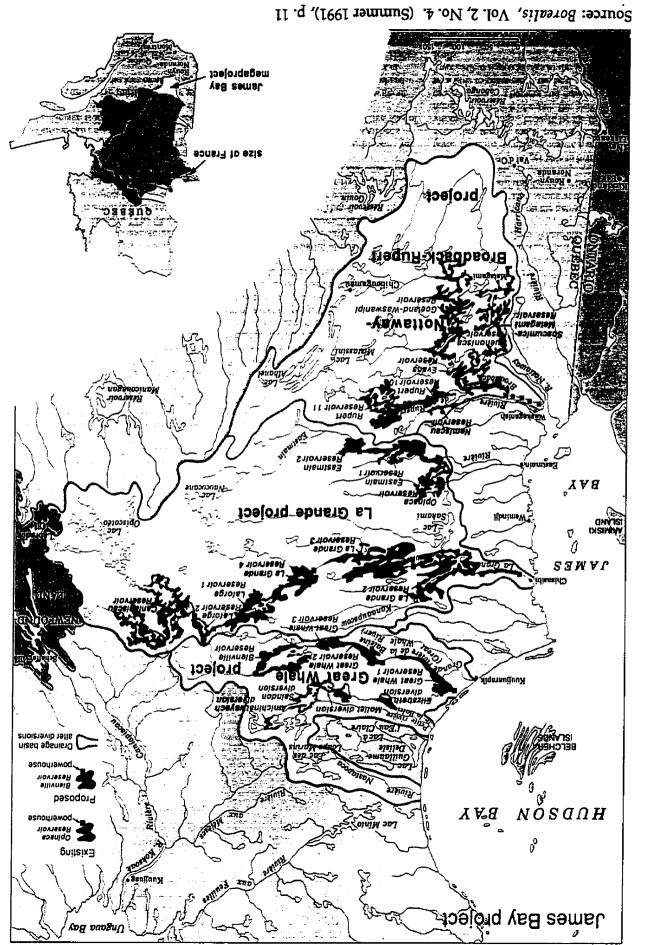
#### 3.2 CONTEXT: JAMES BAY HYDROELECTRIC DEVELOPMENT

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The historical context of European exploration and colonization of the Canadian northern regions was discussed earlier in this thesis. It was in this tradition that the massive James Bay Hydroelectric projects, beginning with the La Grande project in the 1970's, were conceived by southern interests and officially proposed by Hydro-Quebec. Taken in its entirety, the James Bay hydroelectric programme is an ambitious scheme to dam several of the rivers of Northern Quebec for the transmission of power to southern regions. A map depicting the existing and proposed James Bay projects is shown on Figure 1. Of the proposed mega-projects, only the La Grande project has been completed thus far. The James Bay hydroelectric programme has been an ongoing contentious issue in Quebec and beyond, framed in economic, ecological and social terms as a problem or opportunity depending upon one's perspective. (Bauer, 1978; Coolican, 1987; Gorrie, 1990; CARC, 1993; (Mcutcheon, 1991)

## 3.2.1 La Grande and the James Bay and Northern Quebec Agreement

The La Grande project, affecting primarily the Cree territory in the sub-Arctic in terms of environmental and social impacts, led to the politicization of the Crees, who waged a protracted battle with Hydro-Quebec and the provincial and federal governments over issues of aboriginal rights, development rights and compensation. Multi-party negotiations led to the signing of the James Bay and Northern Quebec (JBNQA) agreement in 1975 - an early form of land claim settlement in Canada. The JBNQA left Hydro-Quebec with a framework for implementation of La Grande, and a disputed basis for future large projects in the north. The agreement gave the Crees, as well as the Inuit, a range of mitigative and compensatory measures, and a framework and funding for social and environmental programmes along with limited powers. In short, the JBNQA settled the La Grande issue and laid a shaky foundation for resolution of future development conflicts among the parties. In practice, the implementation of the agreement has been as controversial as its signing and was merely the beginning of ongoing controversy over the political, social and environmental management of the regions north and



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south of the 55th parallel. The Inuit of Northern Quebec are a society vastly changed since the 1970's, the Crees even more so. Despite its impacts, the La Grande project was not subject to any formal public EA and review process. Finally, the environmental management experience gained through the La Grande project has done little to promote consensus among the parties on ecological issues ranging from methylmercury contamination of fish to offshore impacts.

Most importantly, as a limited legal agreement reached among polarized parties, the JBNQA avoided the most fundamental philosophical issue of rights - in this case the right of a southern developer to dam a wild river in a northern aboriginal territory, contrasted with the rights of the native inhabitants of the region to carry on with their traditional lifestyle and land uses. In this regard, the La Grande controversy and its "resolution" was typical of north-south, native/non-native relations at the time. The JBNQA achieved a temporary peace but was by no means a framework for viable interdependence since it did not address enough of the substantive and process issues of significance to the north-south development interface.

#### 3.3 THE 1990'S AND GREAT WHALE

Much contextual change had taken place by 1990 when Hydro-Quebec proposed the Great Whale project. A combination of contextual factors had created a climate somewhat more conducive to the pursuit of viable interdependence. Since the 1970's, native and non-native relations had changed markedly in Canada with the negotiation of northern land claims, the entrenchment of aboriginal rights in the Canadian Constitution, and the rising public profile of native issues. The environmental movement, fledgling in North America at the time of La Grande, had matured through years of research, activism, issues or crises, and the replacement of an environment/economy dichotomy with the tentative framework of sustainable development. The transnationalization of environmental issues, rare in the 1970's, was becoming common in the 1990's. Environmental assessment and management had evolved to the point where proponents and agencies were now expected to address impacts

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thoroughly, and legal or administrative frameworks for EA were being reformed to reflect this. In general, megaproject-style development was by 1990 an anomaly in Canada due to fiscal restraint, investor worries, environmental concerns and other factors. Taken together, these and other contextual factors established an imperative that a rigorous public environmental review of the proposed Great Whale project be conducted.

## 3.3.1 The project and the controversy

The project was announced in 1990 through a public announcement made by the proponent. A principal force behind the Great Whale project was then-Premier Robert Bourassa, who had been the symbolic originator and sponsor of the James Bay projects from the outset in the early 1970's. The Great Whale project had been originally proposed in the early 1980's, and a kind of environmental impact statement (EIS) for the project had been reviewed by the Kativik Environmental Quality Commission before the project proposal was withdrawn.

When the project was officially resurrected in 1990, the announcement represented not only a major project proposal, but also a major policy initiative. The informed public saw in this policy initiative significant and far-reaching economic, political and environmental implications. The announcement once again made the James Bay hydroelectric projects a central part of Quebec's economic strategy, based partly on the prospect of increased energy export revenues. The announcement had an immediate impact on a broad public level, restarting debates that had been dormant. Unlike in the case of the La Grande project in an earlier era, the debates were now framed in new terms to accompany the old ones. Added to the traditional arguments of economic growth versus environmental protection and native rights were the newer themes of sustainable development, native self-government, and cumulative, bioregional and transboundary environmental impacts. By virtue of its nature, timing, and scale, Great Whale became a test case for these newer concepts and inspired widespread involvement. In other words, it became a test case for viable interdependence.

#### 3.3.2 Legal and political battles

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Although expectations for a comprehensive and rigorous public review of Great Whale were in evidence from the time of the announcement, it was by no means certain that one would take place. First, the proponent appeared reluctant to participate in a lengthy EA or approval process. Even when it became clear that public and governmental concerns over the impacts of the project would justify a public review, the proponent sought to minimize its responsibilities through litigation. A coalition of interest groups, spearheaded by Cree leaders, sought to ensure that a formal review process would take place and that the project could not be split up for the purposes of a phased review. The ensuing legal and political battle over the review of Great Whale took place over almost two years before a framework agreement was reached. In the interim, Hydro Quebec's reluctance to be subject to rigorous and comprehensive EA intensified worries on the part of environmentalists. The project was characterized by some as an ecological catastrophe on a grand scale, flooding an area the size of France. Great Whale became to many a symbol of corporate arrogance, and of inequitable north/south and native/non-native relations - an unjustified intrusion. It was a value conflict in which competing perspectives, paradigms and agendas clashed in the media. In the northern communities, tensions festered between younger people with their progressive viewpoints and elders with their traditionalist perspectives.

On the southern front, Hydro Quebec began to lose the public relations battle as the transnationalization of the issue unfolded. As Barker & Soyez (1994) have documented, the issue escalated to national and international proportions and generated negative publicity for the proponent and sympathy for the Cree and Inuit. Barker and Soyez term this phenomenon the transnationalization of environmental issues:

"The common denominator and triggering mechanism behind many such conflicts are the 'ecological shadows' that urban-industrial societies cast over their hinterlands. These shadows include the negative impacts of resource extraction as well as pollution from distant sources. They are caused by social and cultural conceptions and institutional failures that prevent an adequate assessment and fair distribution of the risks and benefits of economic growth and consumption patterns. The concept of the ecological shadow has been applied to the global debate between the "North' and 'South' over the inequitable relations between developed and developing nations. In Canada, this north-south dichotomy is reversed: The environmental and social costs are borne by economically and socially marginalized groups in the sparsely populated north, whereas the large majority of Canadians, who live in the south, reap most of the benefits." (Barker & Soyez, 1994, pp. 13-14)

"Northern Canadian development conflicts involve several interwoven themes, including sustainable resource use, center-periphery relations, trans-boundary impacts, and minority-majority relations. Sustainable resource use has become a key theme in public debates over megaproject proposals in the north, where the dominant development-oriented interests impinge on aboriginal communities, many of which are showing severe symptoms of dislocation but are seeking to return to or at least maintain remnants of a world view that values long-term stability." (Ibid, p. 14)

As Barker and Soyez argue, environmental issues in the 1990's are subject to a higher level of scrutiny than those of earlier eras. Their analysis also suggests an increasing emphasis on viable interdependence as a condition of conflict resolution in resource battles such as Great Whale.

# 3.4 THE JOINT PUBLIC REVIEW OF GREAT WHALE

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Amidst the publicity campaigns on both sides of the issue, and against increased scrutiny and a growing backlash to the project, a Federal-Provincial Agreement was reached in late 1991 for the public environmental review of Great Whale. Key players in the negotiations leading to the agreement were Makivik Corporation, the political arm of the Quebec Inuit, and its Cree counterpart, the Grand Council of the Crees. The agreed arrangement was for a joint configuration of review bodies to carry out the EA functions as prescribed by the JBNQA south and north of the 55th parallel as well as those of the Provincial Environmental Quality Act and the Federal Environmental Assessment Review Process Guidelines Order.

#### 3.4.1 EA and review structure

It was a complex joint review structure, potentially involving five official panels at the scoping stage alone. The panels were streamlined somewhat, leaving three distinct panels with separate chairmen actively involved in the scoping process - the Kativik Environmental Quality Commission, representing Inuit interests in the area north of the 55th Parallel pursuant to section 23 of the JBNQA; the Evaluating Committee (COMEV), representing Cree interests in the area south of the 55th Parallel pursuant to section 22 of the JBNQA; and a combined panel made up of the Federal Review Committee North of the 55th Parallel along with the Federal EARP, representing the federal interest. Had the EA process unfolded entirely, other panels would have been created to perform the review stage of the process, including the Federal Review Committees North and South of the 55th Parallel (COFEX North, COFEX South), and the Provincial Review Committee (COMEX). The review process was to be overseen by a Federal Administrator and his provincial counterpart, in the former case the Chairman of FEARO, and in the latter the Quebec Minister of the Environment. In terms of its complexity, this maze of overlapping mandates and functions is typical of most environmental assessment and management regimes in the north that were created pursuant to land claim agreements (Mulvihill & Keith, 1989).

The large joint configuration created administrative problems but also synergistic possibilities. A Memorandum of Understanding (MOU) was reached in January 1992 among the panels. The MOU established the basis for harmonization of effort among the review bodies and subsequently the creation of a joint Great Whale Public Review Support Office. The Support Office was staffed with scientific and administrative personnel nominated by the major parties involved.

## 3.4.2 Composition of panels

The composition of the panels reflected the intercultural nature of the review. For example, the KEQC featured four members appointed by the Kativik Regional Government, four by the Government of Quebec and a



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chairman appointed by the latter with approval by the former. COMEV was similarly composed and likewise intercultural in membership. The Federal committee was comprised of a chairman and two panelists. The overall effect was a large and sometimes unwieldy set of panelists, but one that featured considerable diversity in culture, experience and expertise.

# 3.4.3 The joint review procedures

It was agreed that the review panels would operate jointly wherever possible while maintaining their respective autonomy where deemed necessary. Each of the panels operated with reference to legal and administrative frameworks for EA - certain steps, time delays, public notification requirements and substantive matters had to be conformed to. In practice, however, there was considerable scope for interpretation and innovation in the review procedures. To have had all the panels enforce their mandates and procedures fully would have created an unreasonably slow and redundant process. Thus a spirit of adaptiveness prevailed, and the support office's role became largely one of identifying and operationalizing adaptations and harmonization opportunities. As a support office memorandum noted:

"A comparison between the actual functioning of the different environmental processes and the legislation reveals that actual practice has attained a level of sophistication and complexity which surpasses the level of the relevant legislation." (Great Whale Public Review Support Office, internal document, 1993).

This is an important point for evaluators of EA to bear in mind. Legislative and administrative frameworks for EA are to some extent determinants of processes and outcomes, but discretionary adaptations made within processes by practitioners are at least as important in shaping outcomes.

#### 3.5 THE SCOPING PROCESS

#### 3.5.1 Designing the scoping process

Thus began the formal review process of Great Whale, after two years of sometimes intense debate, litigation, and negotiation. The first major matter at hand was the scoping process, which would be a public one with hearings in several communities. The KEQC characterized the purpose of the process as follows:

"The purpose of the public consultations that will be held by the KEQC is to obtain public input on the guideline recommendations that the KEQC will transmit to the Provincial Administrator. Guidelines are a crucial part of the Environmental and Social Assessment and Review process since they will ultimately serve to define what issues must be addressed by the proponent in the impact study." (KEQC, no date, p. 2)

The experience of the panels and staff was used to design a process appropriate to northern and southern communities. Translators would be provided to deal with interventions made in four languages. Provisions were made to receive written interventions as well as oral ones. The hearings would not be formal or judicial in nature. The panels recognized their mandate to ensure meaningful and active public participation. Transparency and equitable representation of public opinion were recognized as ethical issues facing the process, and the panels strove to attain these objectives. This was later documented in papers commissioned by the support office. (Vincent, 1994; Great Whale Public Review Support Office 1992)

Here the considerable variation of scoping procedures must be noted. At its minimum, scoping may be an internal exercise conducted by review panels or responsible authorities in which issues are identified and guidelines for EA are developed and circulated for comment by resource agencies before being issued to the proponent. In some cases, in keeping literally with the principle of self-assessment, scoping is conducted by the proponent itself. In practice scoping is often a non-creative exercise in which a template is used and modified to reflect the project. In an intermediate approach to scoping, a draft set of guidelines might be available for public comment



without actual meetings or hearings being held. In the case of Great Whale, public scoping hearings were decreed by the Administrators and in any case there was unanimous agreement among the review panels that they were warranted by the high level of public concern. What was agreed upon was an extensive public hearings process, lengthy in EA terms but short of, for example, Royal Commission proportions.

# 3.5.2 How the process unfolded

The public scoping process is described by the Great Whale Public Review Support Office:

"Beginning on January 27, 1992, the review bodies held joint public hearings focusing on the issues to be addressed in the Guidelines. These consultation sessions began in the communities of Whapmagoostui and Kuujjuarapik, where they lasted seven days. Subsequent sessions were held in the Inuit communities of Inukjuak, Umiujaq and Sanikiluaq, and in the Belcher Islands (Northwest Territories), in the Cree community of Chisasibi, as well as in Val d'Or and Montreal. In all, the hearings lasted 23 days; 94 briefs were submitted and approximately 250 people made oral presentations." (Support Office, 1993 p. 5)

The description of the process continues:

"Following these public consultation sessions, Draft Guidelines were issued by the review bodies on April 30, 1992. During the months of May, June and July 1992, some 500 pages of commentaries were submitted to the Support Office. These written commentaries were studied carefully and taken into consideration during the drafting of the final Guidelines. Included among those organizations and groups which submitted written commentaries on the Draft Guidelines were several government departments, academics, businesspersons, and numerous environmental groups from Québec, Canada and the United States. Written commentaries on the Draft Guidelines were also submitted by Hydro-Québec, the Grand Council of the Cree of Québec and the Makivik Corporation, an Inuit organization." (Ibid, pp. 5-6)

## 3.5.3 Issuance of guidelines and withdrawal of project

After these steps, the guidelines were finalized and sent to the Administrators, who in turn submitted them to Hydro-Quebec. The

proponent then prepared and submitted an EIS to the review bodies, who undertook a conformity study. The process then ended prematurely with an announcement from Premier Parizeau that the project proposal was being withdrawn. Had the process continued, subsequent steps would have included the release of the EIS to the public if and when it was judged by the review panels to be in conformity with the guidelines; full hearings in which the public would be invited to express opinions on the project's justification and impacts; analyses and conclusions drawn up by the review bodies concerning the project; and submission of their decisions and/or recommendations to administrators. (Support Office, 1993).

# 3.5.4 Managing the public hearings and input

Two problems faced the panels after agreeing to a schedule: how to actually conduct the hearings, and how to manage the input from intervenors. The first problem related to a more fundamental question: what were the hearings for? Here a diversity of perspectives came into play since the purpose was officially defined in rather narrow terms. At another end of the spectrum, there is a more philosophical, normative framework for public consultation such as that proposed to the review bodies by Vincent (1994), which discusses consultation in ambitious terms. In ideal terms, the hearings foster dialogue, learning and may at best approximate an agora. The review panels did not have the benefit of Vincent's input for the scoping hearings since the commissioned report was released subsequent to the latter, for consideration before the full hearings on the project itself.

Since the scoping hearings were conducted without the benefit of Vincent's framework or any other explicit theoretical framework (although elements of Beanlands & Duinker's framework were applied), their purpose was assumed to be known or implicitly recognized. Had these assumptions been examined, a diversity of views would undoubtedly had been revealed. Equipped with a basic idea of the purpose of the hearings, they were in effect conducted in a way that reflected a balance of theory, reference to past practice, intuition and adaptive pragmatism. The theory resided in the panels and their advisers through research and experience. In summary, an



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adaptive scoping exercise was conducted - partly pre-planned, partly discretionary.

#### 3.5.5 Intercultural considerations

The scoping process was designed explicitly for the northern, aboriginal and southern, urban contexts in which they took place. This does not mean, however, that great attention was paid to the challenge of scoping in an intercultural setting. It is not clear at all, in fact, that intercultural EA or scoping was ever considered a special challenge in itself by the panels. Participant observation, interview and analysis indicate that the challenge was not recognized explicitly, or else it was assumed to be addressed by procedures used to conduct hearings in "northern", "remote", or "aboriginal" communities. These distinctions are important. Seldom, if ever, was the challenge of intercultural EA discussed officially. (It was discussed at length in two papers commissioned by the panels: Vincent; and Mailhot, but only after the scoping hearings were finished.)

On an implicit level, however, there is considerable empirical evidence that the panels recognized the challenge and took it seriously. First, the panels were themselves intercultural in membership. Second, the specific aspects or needs of communities were identified in setting up the hearings; local customs, hunting seasons, community events and dynamics were all frequently discussed. It was recognized that each community hearing would be a unique event subject to local circumstances and dynamics. Dynamics between the panels and the audiences were a key concern. The Great Whale Public Review Support Office offers its perspective on the atmosphere and dynamics of the hearings, as well as efforts made to make the hearings responsive and inclusive:

"Active participation of the public is one of the cornerstones of the review process. This participation was achieved through public hearings as well as the submission of written briefs. Given the linguistic and cultural differences, as well as the geographic realities of the interested parties, this participation was carried out in appropriate conditions and with appropriate deadlines. Moreover, as these hearings were not formal judicial proceedings, and were conducted in an



atmosphere which encouraged public participation, the contribution of the public was even greater." (Great Whale Support Office, 1993, pp. 2-3)

" In terms of technical aspects, another factor which encouraged a more meaningful participation of the native populations was the availability of the Guidelines in Cree and Inuktitut, both at the draft stage and in final form, as well as simultaneous translation during public hearings." (Ibid, p. 3)

It would be inaccurate and unbalanced to say that the hearings went off without problems. In fact, not all stakeholders were satisfied that their concerns were heard. There was a widespread sense of confusion regarding purpose, roles and procedures. Finally, although simultaneous or sequential translation helped bridge linguistic barriers, translations are by their very nature inherently imprecise. Some of the input from intervenors was undoubtedly lost.

# 3.5.6 Northern and southern hearings

The northern hearings unfolded somewhat similarly. The first intervenors were community leaders or politicians, followed by elders or vice-versa. Time permitting, other community members would speak as well. Before they began, the panels provided an overview of the purpose of the hearings and the procedures to be followed, and the proponent provided an overview of the project without discussing its impacts. Audiences were repeatedly informed that their interventions should address the environmental study needs from their concerns with respect to impacts. They were asked to avoid discussing more fundamental issues such as the project's justification, or broader issues beyond the scope of review. Audiences were told that a second set of hearings held subsequent to the issuance of the EIS by the proponent would provide an opportunity for comment on the project itself. This point seemed largely lost on the intervenors who spoke at northern hearings, and, to some extent, those in Montreal as well. More of the Montreal intervenors, however, did focus on the task as outlined by the panels. One would conclude from this pattern that scoping and EA were more of an abstraction to northern audiences than southern ones. It is also apparent that some intervenors understood

the purpose of the scoping hearings but chose to focus on broader questions, or to engage in political "grandstanding". In general, however, the southern interventions were more to the point; to some extent this is because the panels enforced time limits (five to fifteen minute allocations to individual intervenors or group representatives) more rigidly. In the north, the tendency was for the panel chairmen to remind intervenors to focus on issues, but to be lenient or indulgent in allowing them to speak about nearly any topic they wished to. Almost invariably, these proved to be personal stories of life on the land or in the community, and reflecting a series of recurring themes or metaphors. This kind of intervention is termed "thematic", or "metaphorical".

# 3.5.7 Stretching the boundaries of discussion

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Intervenors frequently addressed the issue of the project's justification, even though it was made clear that this was outside the boundaries of discussion. Some intervenors seemed to regard the panels and the proponent as one and the same or interchangeable. These developments, along with the tendency of intervenors to ignore the terms of reference of the hearings in favour of larger issues, are understandable since this was for most stakeholders the first opportunity to confront the proponent directly and debate the project in a public forum. Until the time of the scoping hearings much of the discussion of the project and its impact was based on rumor and misinformation. The panels could have been more vigorous in steering the discussion and enforcing the terms of reference. Instead, they tended to be lenient, as if they had expected the hearings to unfold as they did. This reflects both the openendedness and the limitations of scoping. When conducted internally by experts it is a technical exercise. But when it is opened up to the public it becomes a social exercise - one in which intervenors use the terms of reference as a pretext or starting point for airing their concerns. This is what happened in the Great Whale scoping sessions.

#### 3.5.8 Diversity of intervenors

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The intervenors were a varied group. In the southern hearings (Montreal) they tended to be representatives of provincial, national and American interest groups. Relatively few individuals made presentations. The effect was a reasonably structured, efficient process. The hearings were considerably more formal than the northern ones, including those in Val D'Or, which in terms of atmosphere was a mix of south and north. The Montreal hearings were also intercultural, with interventions made in Cree and Inuktitut as well as French and English. Some key intervenors - native leaders - were accorded the prerogative of making several interventions, both in Montreal and in northern communities.

A high proportion of the interventions consisted of either political statements or personal stories or memoirs. Collectively the latter presentations constitute a loose body of traditional ecological knowledge (TEK), even though they were not gathered as such in the required systematic way. The themes and metaphors contained in these presentations are listed in Appendix F. The fact that this input was not directly relevant to the task of drafting guidelines, or at least not in a convenient form, presented a challenge to the panels. Parts of these interventions were relevant in reflecting valued ecosystem or cultural components. These values could be transformed into guidelines and they were eventually, although through the transformation they became technical criteria. Some of the input, however, was too general to be translated directly into guidelines. For example:

"Therefore, this world was given to us freely and, therefore, we should not destroy it in that great amount. We all think that it is going to be unbreakable, this world, we all know that all the world is going to be destroyed in the future. All the earth is going to be destroyed. You all know that, not now. Not now, so don't destroy it now. It's not to be destroyed, completely not destroyed. I know you know that. I'm just reminding you."

(Excerpt from Annie Amittoo's intervention, translated from Inuktitut, from March 9, 1992 hearing in Kuujjuarapik/Whapmagoostui, Volume 7, p. 6)

"We have worked with our hands on everything including the clothes we make. We were taught how to work with our hands by our parents. We did not have schools to go to learn these things. I can still do the clothing, the traditional Inuit clothing. I'm not doing this very often nowadays, but if I had to I could still do clothing, traditional clothing as were done during those days. You would be surprised how well the clothes were made in those days. We used to live in tents throughout the year and for those who have not seen that traditional life, the quallunaat would be very surprised. So we have some surprises for you. Thank you." (Excerpt from Louisa Fleming's intervention, translated from Inuktitut, from hearing January 29, 1992 hearing, Kuujjuarapik/Whapmagoostui, pp. 30-31).

#### 3.5.9 Developing EIS guidelines

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Having consulted intervenors in several communities in an intense few weeks, the challenge for the panels was to develop guidelines for the proponent's EIS. Although this was a collaborative effort among the joint panels, it also featured considerable separate work on their respective parts. Both COMEV and the KEQC had drafted guidelines earlier, before the scoping process began. In the case of the KEQC, the pre-existing draft guidelines came from an attempt to review the access portion of the Great Whale project in 1991, as well as their much earlier tentative review of the project in the early 1980's. The KEQC, and Makivik Corporation, had a well-formed idea of the project and its issues. Likewise, the Grand Council of the Crees was well-prepared for the issuance of guidelines, having done extensive environmental analyses of their own, primarily from an opposition standpoint. EARP, for its part, was a relative newcomer to the Great Whale issue and seemed to have relatively little prepared in advance for guidelines. In drafting guidelines, EARP relied heavily on input from its initiating and interested agencies such as the Federal Departments of Fisheries and Oceans, and Environment. Thus the panels were all prepared to issue guidelines separately unless a harmonization effort could be agreed upon, building on the cooperation that had taken place to that point. Fortunately, a spirit of cooperation and common sense of purpose prevailed. The panels, assisted by the support office, made every effort to draft joint guidelines and the result was a harmonized document.

The Support Office describes the guidelines:

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"The Guidelines are organized with respect to current and classic practices, although they contain a number of innovative elements. The Guidelines require that Hydro-Québec justify the project, describe the milieu or current state of the environment in which it would be located, describe the project, specifying the localization of power stations, reservoirs, spillways, and so on, and then, by the superimposition of the proposed project on the milieu, assess the proposed project's impacts on the biophysical and social environment. Finally, the Guidelines ask Hydro-Québec to present plans for mitigative and compensatory measures as well as plans for environmental surveillance, monitoring, and long-term management programs in the region affected by the project." (Support Office 1993, p. 1)

"The Guidelines have been informed by oral testimony given during public hearings as well as by testimony submitted in the form of briefs. Both have been essential tools in delimiting the inventory of knowledge relevant to the study of the proposed project's impacts, as well as to the identification of the anticipated impacts on the biophysical and social environment. The Guidelines advocate a multicultural approach with regard to the description and notion of the environment, as well as with regard to the identification and study of the anticipated impacts." (support office, 1993, p. 1)

#### 3.5.10 Managing written input

The review panels also benefited from written submissions by intervenors. One of the best examples of a relevant and focused submission is that made by Makivik Corporation. Makivik prepared a comprehensive set of recommendations for the guidelines, underpinned by an impressive review of EA practice. Two excerpts from their submission demonstrate this:

"We must also stress that valued ecosystem components can be of a social or abstract nature, and we recommend that the guidelines specifically acknowledge that. Examples would include: a sense of individual and collective control by the Inuit; the sight of land- and seascapes unaffected by man; relative silence in the communities and in the bush; freedom to travel at will; the knowledge that an ancestor's burial site creates a personal link with a particular area of land; the sharing of E

food along lines of kinship or friendship; the application of traditional systems of land-tenure; and the certainty that food and water are uncontaminated." (Makivik, 1992, p. 15)

"If Hydro-Québec finds - as seems probable - that different intervenors value different ecosystem components, or that they have different valuations of the same ecosystem components, then it should explain and justify the ecosystem components and the values that it retains. Alternatively, we recommend that the guidelines require Hydro-Québec to submit a series of analyses based on the different groupings of ecosystem components and values identified by the various intervenors." (Ibid, p. 16)

Makivik's submission is directly relevant to the challenge of intercultural EA, and offers suggestions in this regard that are reflected in the guidelines.

# 3.6 THE EIS GUIDELINES

The Great Whale EIS guidelines were made public on September 10, 1992. The actual product, synthesized from exhaustive lists of studiable criteria and stakeholder preoccupations, is a relatively compact 100 page document. The guidelines are organized into chapters and are written predominantly in textual form rather than lists. Study requirements for the proponent are summarized in discrete paragraphs. Key requirements such as attention to traditional knowledge systems or the project's intercultural context are supported by explanatory text. The proponent is thus presented with more than a list of study requirements; the guidelines are an actual framework. They are clearly and unambiguously written, and helpful in guiding the proponent toward a comprehensive but focused EIS. The Great Whale EIS guidelines are next compared to selected cases in order to analyze their unique features.

# 3.6.1 Comparing the guidelines to contemporary and past practice

Several contemporary EIS guidelines for projects ranging in nature and scale were reviewed in order to provide a basis of evaluation for the Great Whale guidelines. They included the guidelines for the following proposed projects: the Kiggavik Uranium Mine (1989); the Vancouver International



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Airport Parallel Runway (1990); Military Flying Activities in Labrador and Quebec (1986); Nuclear Fuel Waste Management and Disposal Concept (1992); and the Beaufort Sea Hydrocarbon Production Proposal (1982). The purpose of reviewing a sample of EIS guidelines was to determine their typical formats, styles, inputs, breadth, and innovative features. The sample provides a cross-section of guidelines reflecting contemporary standards at the time of the development of the Great Whale guidelines, and therefore a rough basis of comparison. A selective review reveals considerable similarity among the guidelines; most are lists of issues for the proponent to study, with more emphasis on what to study than how. No explicit discussion of intercultural EA is found, even though three of the guidelines reviewed (Kiggavik Uranium Mine, Military Flying, and the Beaufort Sea Hydrocarbon proposal) were intercultural in nature.

# Kiggavik project guidelines

The Kiggavik Uranium Mine EIS Guidelines were released by a federal EA panel in 1989. The proposed mine would have been developed 75 km west of the community of Baker Lake, Northwest Territories, and therefore involved northern native people as primary stakeholders. An "issues scoping process" was held in affected communities prior to the drafting of the guidelines. The guidelines feature a standard breakdown of issues organized by discipline as well as the separation of social and biophysical issues. Native social concerns are covered by a standard set of requirements regarding socio-economic impact studies. A section concerning "renewable resource use" addresses traditional uses of the study area. A non-technical summary in Inuktitut is required of the proponent but no explicit reference is made to multicultural conceptions of the environment. Native stakeholders are discussed mainly in terms of compensatory measures. An explicit discussion of TEK is noticeably absent; instead there is a rather general requirement of the proponent to "make use of local knowledge". In summary, the Kiggavik guidelines are typical of contemporary standards but hardly an imaginative, enlightened framework for intercultural EA.

#### Beaufort Sea guidelines

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The Beaufort Sea EIS guidelines were released in 1982 by a federal EA panel. Perhaps because the EA process was a very lengthy and expensive one by any standards, and perhaps because the Beaufort Sea project followed the seminal Mackenzie Valley Pipeline Inquiry by only a few years, these guidelines are innovative in terms of intercultural EA requirements. Three sections in particular are noteworthy in this regard. With respect to the socio-economic environment, the guidelines say:

"This section should include a description of the existing social environment (including related economic factors) for each community that would be affected by the proposal. Inter-community and inter-zone relationships and ties should also be discussed. The importance of northerners' input to this section cannot be stressed enough." (p. 13)

Secondly, a summary of impacts by zone for community review is required, in "...plain, non-technical language and should include an Inuit and Dene translation." (p. 29) Finally, with respect to Land and Resource Use, the proponent is required to provide a:

"...discussion of the real and imputed values, including cultural values, of renewable resource harvesting in terms of harvests by individual and family units on a full and part time basis." (p. 41)

The Beaufort Sea guidelines, written ten years prior to those of Great Whale, constitute an impressive attempt to make the proponent sensitive to local and native concerns. The intent of the guidelines is clearly to steer the proponent toward a balanced EIS integrating both scientific data and cultural values. The intercultural EA dimension is not explored beyond these requirements, however, so the result is a tentative attempt to explain the challenge to the proponent.

# Military Flying in Labrador and Quebec EIS guidelines

A federal EA panel, also covering requirements of the James Bay and Northern Quebec Agreement, issued an EIS in 1987 for proposed military flying activities in Labrador and Quebec. A complex set of distinct Native stakeholder groups included Inuit, Naskapi, Montagnais, and Naskapi-Montagnais-Innu. There are several impressive references to intercultural EA in the guidelines. Foremost is a discussion of TEK:

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"Many of the effects of the Project will probably occur in areas that have been studied relatively little by practitioners of the western scientific tradition. There is increasing recognition, however, that aboriginal persons possess knowledge and understandings that complement and sometimes improve those available from other approaches. The Proponent must make full use of the knowledge, understandings and interpretations of aboriginal persons, not only in areas where other types of data, knowledge and interpretations are not available, but also to complement and improve them where they exist." (quoted in Makivik 1992, p. 10)

Also noteworthy are a requirement that a summary of the EIS be published in all the dialects of the stakeholder groups, and strong directives regarding accessibility of the document in terms of writing style. Overall, however, compared to the Great Whale guidelines, this document stops short of being a true framework for intercultural EA.

## 3.6.2 Innovative features of the Great Whale guidelines

The Great Whale guidelines are an original contribution to EA, reflecting numerous influences of which the scoping hearings were the main one. At a minimum, the other influences include the cumulative knowledge and experience of the panels; the assistance of the support staff; the influence of major stakeholders within and outside the formal scoping process; the proponent; and the broader public beyond that which participated directly in the hearings. The guidelines are very much a document of the time and strongly reflective of contemporary standards. In certain parts they are also an original, unique contribution to EA theory and practice. The Support Office argues that the guidelines strongly reflect the public input received:

"As the Guidelines to a large extent reflected public comments as expressed at public hearings and by way of written consultation on the draft Guidelines, the credibility and validity of the process was significantly confirmed." (Support Office, 1993b p. 3)

#### 3.6.3 Analytical vs. encyclopedic guidelines

Although the guidelines are only partly derived from the scoping hearings, they must reflect the latter strongly in order to satisfy the intent of the EA process and the various legal and administrative frameworks. Moreover, they must follow the normative rule of public consultation that requires that the public must be satisfied that it was heard and its input duly considered (Vincent, 1994). The panels thus had a balancing act to perform in producing the guidelines. After some deliberation among the panels it was agreed that the guidelines should be relatively brief, and not "encyclopedic". This debate reflected two particular schools of thought. The first argues that guidelines need to be exhaustively specific, so that the proponent is left without ambiguity as to the requirements of the EIS. Experience in EA shows, however, that encyclopedic guidelines seldom if ever inspire a satisfactory EIS. Proponents may address the issues as asked in a reductionist manner and produce volumes of information, while leaving basic questions unanswered by not synthesizing their findings into a clear assessment of impacts.

To some extent, panels asserted their individual styles within the joint agreement. The tension between these styles gave the scoping process its flavor and character. Generally speaking the Cree panel (COMEV) tended toward a legalistic and comprehensive approach, in keeping with the context of Cree opposition to the Great Whale project. The federal panel was largely focused on precise interpretations and applications of the EARP guidelines and therefore its first concern was "due process" and the satisfaction of all process requirements. The Inuit panel (KEQC) was the least encyclopedic and the most synthesis, substance and content-oriented panel, particularly with respect to the inclusion of principal assessment criteria. The tension between these various EA philosophies and styles defined the process, while a flexible Support Office balanced the needs of all parties.

In making a collective decision regarding EIS guidelines format, the Great Whale panels opted for the second school of thought, producing instead a list of the critical issues to be studied, but supplementing it with a list of

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assessment criteria and an enlightened discourse on intercultural EA. The proponent should have understood upon reading the guidelines that the adequacy of the eventual EIS had as much to do with the process and intent of the environmental studies as it did with results and scientific data. The EIS would have to be understandable to the public, and especially the northern public, in order to be satisfactory. The guidelines thus created a strong requirement that the proponent, in producing its EIS, become literate in language, imagery, epistemology and methodology beyond its own. The proponent was thus invited to become a full participant in the learning process, rather than a player in an adversarial game. That the panels produced these particular guidelines reflects a particular view or consensus with respect to how EA should be conducted. The guidelines are both an exercise in not only transmitting, but also in interpreting the public input.

#### 3.6.4 Responsiveness of guidelines

EIS guidelines have most often been developed with specificity in mind, rather than generality. The perceived risk in being too general is leaving the proponent with a lack of specific requirements. The Great Whale panels recognized the value of generality and the corollary that too much specificity is conducive to a reductionist EIS of little value to stakeholders. In this regard the panels were highly responsive to intervenors. The interpretive challenge was to take this input and convey clearly to the proponent the embedded concerns and values. Some of this was covered in the guidelines as "impacts on lifestyle" or "traditional use, values, or activities". In other ways it is covered in the Principal Assessment Criteria and those directives which address intercultural EA. The departure from common practice in the guidelines was to prepare the proponent, in an elegant rather than encyclopedic way, for the expectations of the eventual readers of the EIS. The guidelines state clearly that the EIS must make sense to all readers and therefore be accessible to them. Here again, this reflects an attempt to make the EA process more a social than a technical exercise. The proponent is instructed that sound science is only one requirement of their EA, and not necessarily the most important one. This is an important, albeit somewhat idealistic approach that involves two "leaps of faith". First, it is assumed that the proponent will actually prepare an EIS that is



responsive to the guidelines and therefore to the stakeholders. Secondly, it is assumed that stakeholders will actually read the EIS and not leave this entirely to experts. This double leap of faith is based on a view of the EA process as one requiring integrity and continuity between steps and phases. The unfortunate contrast is a more disjointed and cynical process characterized by ruptures between critical steps - non-responsive hearings breed guidelines, an EIS, and subsequent implementation phases that fail to do justice to the values and lessons gathered along the way. The Great Whale scoping panels appeared determined to avoid perpetuating this syndrome.

### 3.7 SUMMARY

In this section salient aspects of the case study have been described and analyzed. Further analysis follows in Chapter 4, in which the case study is discussed with reference to the evaluative criteria outlined earlier. An evaluation follows in Chapter 5.

# CHAPTER 4 ANALYSIS OF THE CASE STUDY

In this chapter the five sub-evaluations are presented. The evaluative criteria that form the basis of the sub-evaluations are again presented below in Table III (p. 133). The process-oriented (specific) criteria (L-P) in the righthand column are used as the basis of the five sub-evaluations. The relationship between the three groups of criteria was discussed in Chapter 2. It was established that the specific process-oriented criteria are the primary basis of evaluation, while the higher-level criteria - the general processoriented and substantive criteria - are secondary evaluative criteria. The rationale for this evaluative strategy was argued in the Conceptual Framework. In essence, the argument is that "process leads to substance", and that, in the case of a goal such as viable interdependence, it makes sense to begin with quite specific process-oriented criteria that are within the grasp of EA practitioners to pursue. The experimental sub-analyses in this chapter therefore address the specific process-oriented criteria. Later, in Chapter 5, the specific process-oriented criteria are related to the more general criteria (A-K) in a more global evaluation of the case study.

Table III: Evaluative Criteria (from section	2.5)
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Substantive	Process-oriented (general)	Process-oriented (specific)
A. Culturally appropriate development	F. Equity and respect	L. Appropriate balance of formality
B. Appropriate scale, timing, and pace of development	G. Transparency and mutual understanding	M. Receptive to multiple knowledge systems and
C. Equitable development	H. Non-deterministic I. Displacements of	patterns of expression N. Interpretive
D. Ecologically sustainable development	power/influence	capacity/function
E. Development that	J. Transformative	O. Facilitates inter- paradigmatic dialogue
promotes community self- reliance	K. Unlocks creative forces in community	P. Problem-setting function



#### 4.1 OVERVIEW OF THE ANALYSES

Each sub-evaluation, as shown in Table II of the conceptual framework in Chapter 2, features a different line of inquiry and analysis, and makes use of different tools. The present chapter thus consists of five sections:

- 4.2: Appropriate balance of formality and informality
- 4.3: Receptive to multiple knowledge systems and patterns of expression
- 4.4: Interpretive capacity/function
- 4.5: Facilitates interparadigmatic dialogue
- 4.6: Problem-setting function

Each of the sub-evaluations has one general purpose: to determine how well the case study performed with respect to the criterion in question. For each of the sub-evaluations, the elements of analysis, analytical tools and key questions are discussed at the beginning of the section. One analytical tool is common to all the sub-evaluations: the Master Evaluative Table, which is presented below for reference. Its significance and specific application to each sub-evaluation is discussed in section 4.2-4.6.

As discussed in the evaluative framework (section 2.5), the analysis began with a Master Evaluative Table, which is presented below in Table IV (p. 135). The table presents each of the individual EIS guidelines and evaluates its support for the substantive and general and specific process-oriented evaluative criteria. As explained in section 2.5, a rating system is used, consisting of a scale of  $1 (\bullet)$  to  $3 (\bullet \bullet \bullet)$ , which are relative measures of a guideline's support for evaluative criteria. The table features comments which explain the basis of evaluation or the link to the criteria. Relevant parts of the evaluative table are adapted to each of the sub-evaluations and discussed in sections 4.2 - 4.6; the table is simply presented here for reference.



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# Table IV - Reference Table: Support in EIS Guidelines for substantive andprocess-oriented criteria (master evaluative table)(•=some support••=substantial support•••=strong support)

Guideline	Substantive criteria	General process criteria	Specific process criteria	Comments
111. Principal assessment criteria	A• C••• D••	J••	P ••	Proposed project is cast as a sustainability/equity issue; onus on proponent to defend as such.
112. Brundtland definition of sustainable development (i.e. carrying capacities)	D•••			Elaboration of sustainability definition.
113. Rights of communities to determine their future	A• E•			Goal of self-reliance is implied.
120. Significance of impacts; valued ecosystem components	A•			Recognition of cultural relativity of impacts.
121. Ecosystem integrity	D•••	F∙	P••	Broad definition of ecosystem integrates social, health aspects.
124. Cumulative impacts			P••	Explicit requirement for broad assessment.
125. Global impacts			P••	Explicit requirement for broad assessment.
126. Local knowledge; conceptual and symbolic systems	A••	F••• I•• J•• K•	M••• N•• O• P•••	An explicit recognition of the intercultural challenge of EA.
127. Cultural relativity of values; diversity	A••	F•••	M••• O•	An explicit basis for an intercultural approach to EA.
128. Local stakeholder consultation	A•• C••	F••• G•		Importance of local values and perspectives emphasized.
132. Consultation methodology		G••	M••	Explicit reference to cultural, linguistic barriers to consultation.
134. Cooperative study arrangements			M••	Reference to knowledge gathered by native organizations.
137. Literature review			M∙∙	Reference to TEK.
141. Translation of EIS; accessibility of EIS format		G••	N•	Proactive measure to enhance mutual understanding.



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212. Inequity of costs and benefits	B∙ C∙∙	[••	P•••	Explicit attempt to reformulate problem.
302. Guiding principles for describing environment	A•	F•• G•••	M• N• O• P•••	Addresses intercultural aspect; valued ecosystem components; human- ecological interface.
303. Description of environment		<b>F</b> ∙•	M•	Requirement that knowledge of each group be addressed.
304. Multicultural definition of environment	A••	F••• G••• I•• J••	M••• N••	Very strong and explicit requirement for intercultural approach to EA.
305. Valued ecosystem components		I•• J••	M• N• O• P•••	Reformulation of problem to recognize cultural diversity.
306. Components valued by each community 307. Components perceived		F••• H•• J•	M••• N• O•• P•	Explicit requirement to value input of each culture separately. Reflects emphasis on
as threatened			-	perceptions in addition to "objective" findings.
308. Geographic boundaries		F•• H••	М•• Р••	Proponent required to refer to perceptions, knowledge of each group.
310. Historical trends		F• H•	M• P••	Reflects a non- deterministic approach; affected groups to shape boundaries to some extent.
368. Birds: inventory and analysis		F•		Proponent must differentiate between interests of natives and non-natives.
375. Demographics		F•	P•	Problem cast both in native and non-native terms.
378. Land uses			M•• 0•	Social structures, symbol systems of natives to be taken into account.
380. Land use		J• K•	N• P••	Alternatives identified by natives to be considered.
382. Archaeological and historical study		F••	M••	Close collaboration with Avataq Cultural Institute, Cree Regional Authority required.
384. Social organization and symbol systems		[•	M••• O• P••	Native systems for explaining changes, dynamics emphasized.



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385. Community perceptions		F●●	N••	Proponent required to
of project	C•		P∙∙	integrate multiple
				perspectives.
504. Five fundamental		J••	P•••	Strong guidance for
issues to be evaluated				proponent to avoid
				reductionist approach.
511. Cultural aspects of diet		j••	N•••	Proponent given specific guidance, in intercultural
			P••	terms.
512. Mercury contamination			N•	Perceptions of native
512. Wercury containination				communities emphasized.
518. Stress and quality of			N•	Feelings of alienation or
life			P•	belonging linked to
				health.
520. Free movement within			N•	Perceptions are
the territory				emphasized.
				Interventions made in
				scoping were interpreted
	ļ			for this element.
552. Exploitation of	C••			Regional context is
resources				emphasized.
557. Social cohesion			N••	Requirement a composite
Sov. Social conesion			P••	of various interventions
			-	made in hearings.
559. Social organization		]••	N•••	A highly interpretive
		1.	P••	section, capturing concerns
				implied by intervenors.
561. Opening of the region			N•	Very specific list of social
			P+++	impact concerns,
				amounting to a problem
	ļ			statement.
565. Job creation: native			N••	Complex problems
attitudes toward			P••	related to job creation are
567 Descent for subtract		 F•••		recognized. A key integrative section,
567. Respect for culture	A••• C•••		M••• N•••	with pluralism
			0.	emphasized strongly. A
			P•••	synthesis of native
				concerns.
569. Values with regard to			0	Integrative, summative
environment		1	P+++	statement.
608. Mitigative measures	A••	F••	N••	Requirement to review L a
1		1		Grande experience, after
				intervenors expressed
				dissatisfaction with
(10 A			No	mitigation. "Free movement" on land
613. Access to land &			N••	a value expressed in
resources				hearings.
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618. Valued or sacred sites	P●	Proponent required to make knowledge available to native organizations.
620. Education programs regarding project, impacts	N•• P•	Responsive to lack of knowledge in communities
8 81 7 7 1		about project, impacts.

As discussed above, the Master Evaluative Table is a primary tool in the analysis and evaluation. Its significance is discussed in the sub-evaluations which follow.

# 4.2 APPROPRIATE BALANCE OF FORMALITY AND INFORMALITY

In this sub-evaluation the scoping hearings and other relevant elements of the scoping process are analyzed through participant observation and transcript review. The analysis is undertaken in order to determine whether or not a balance of formality and informality was maintained in the process that was appropriate for scoping in an intercultural context. Evaluative criteria and analytical questions are drawn from theorists (e.g. Gagnon et al, 1993; Parenteau, 1988) and previous case studies (the Berger Inquiry; BEARP) and applied to the present case study. A theoretical base is presented, discussing the importance of formality and informality, and establishing why each is needed at different points in the scoping process. The northern and southern phases of the scoping hearings are discussed and contrasted. Interventions from stakeholders are presented and discussed as they relate to the issue of appropriate formality and informality. The performance of the scoping chairs and panels is discussed in terms of their contribution to the balance of formality and informality. A summation is presented, and an evaluation is proposed.

# 4.2.1 Theoretical base of the evaluation

The aim of the analysis undertaken in this section is to determine whether or not an appropriate balance of formality and informality was maintained during the scoping hearings. The analysis applies primarily to the scoping hearings, and secondarily to other procedures used to gather public input for example the solicitation of written input by the Great Whale Public Review Support Office. There is no particular popular framework for assessing formality and informality, and the assessment is inherently judgmental and qualitative. Among the five sub-evaluations undertaken in this thesis, the present one is relatively straightforward but is nevertheless an important precondition for EA in intercultural settings if the process is to be supportive of viable interdependence.

#### Lessons and criteria from other cases

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Since the primary analytical focus is on the scoping hearings and the performance of the EA panel, key data include the hearings transcripts. In addition to the latter, research included participant observation and notes. The ex-post analysis consisted of a review of the transcripts, review of research notes, and consideration of key questions and criteria. Key questions and criteria, as discussed in the Conceptual Framework, are derived from literature and past experience in EA. The informality of the Berger Inquiry, for example, was seen as crucial to the success of the process and it has been held up as a model. The Berger approach would not, however, be easily replicable in an EA process that is characterized by more rigid regulations. Some of the lessons of the Berger case are nevertheless relevant to Great Whale.

Likewise, some elements of the Beaufort Sea EA (BEARP) experience are relevant to the present analysis. As Sadler notes, BEARP panelists had to balance formality and informality, their balancing act a "....series of judgment calls made in the context of a dynamic process." (Sadler, 1990, p. 47) The panel adopted rules of procedure, marking the first time that this was done in a federal EARP:

"The Panel, however, made it clear that this codification of the rules of practice should not be achieved at the expense of the informality that was widely perceived as an important advantage of EARP hearings." (Sadler, 1990, p. 41)

A notable step taken in the BEARP, in the tradition of Berger, was the use of "double hearings", or as EARP termed the practice, "community" and "general" meetings - with the former being deliberately informal and geared to northern communities. Sadler notes that during public meetings held to gather input on draft guidelines:

"Special arrangements were made for the participation of representatives from surrounding communities. The meetings, a la Berger, were divided into general and community sessions, with the latter being reserved for non-technical discussion of the particular concerns of potentially affected communities." (Sadler, 1990, p. 37) The BEARP general sessions, meanwhile, featured a ".....smorgasbord quality, technical input along with unconstrained public opinion...". (Sadler, 1990, p. 42)

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In the BEARP community hearings, every effort was made to create and maintain a relaxed atmosphere, and liberties taken with the rules of procedure. (Sadler, 1990, p. 61) A key analytical question therefore revolves around whether any of the procedures of Berger and BEARP were applied in Great Whale with respect to balancing formality and informality in the scoping hearings.

As noted in the Conceptual Framework, Gagnon et al (1993) contend that EA has little potential to empower communities when applied formally, although it has the potential to do so informally if it is conducted in a way that is "participatory, interventionist and responsive to local dynamics." (Gagnon et al, 1993, p. 243) They note, however, that efforts to apply Berger's model meet with formal legal constraints:

"While this approach clearly shifts the balance of power toward the impacted communities, its wider application is influenced by political processes that demand formal procedures and positive community responses to project-based development without support for community-controlled research into cumulative impacts of regional changes." (Gagnon et al, 1993, p. 230)

For these practical reasons, any analysis of atmosphere in an EA process must concede that a certain level of formality is necessary and desirable.

#### Arguments for and against formality in EA and scoping

Arguments against formality in EA are common in environmental literature. It is commonly accepted, at least in Canada, that adversarial, legalistic and overly formal hearings are undesirable and counterproductive. It is popularly accepted that overly-technical approaches to EA do not satisfy community expectations of public hearings processes. Informality suggests openness, while formality suggests technocratic, G

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narrow, and closed approaches to EA. Particularly in the north, formality is recognized as being out of context and a deterrent to community participation.

There are also arguments against informality in EA. As noted above, legal frameworks for EA demand a certain level of formality in order for the process to have recognized legitimacy. The corollary is that overly informal processes have no official mandate and are therefore unreliable. Moreover, in the case of BAPE, Parenteau notes that the hearings are relatively formal, but this does not appear to discourage participation (Parenteau, 1988, p. 25). It is unlikely, however, that the BAPE process would be functional in a northern setting for reasons discussed earlier.

#### The broader informal process surrounding EA

A distinction must be made between informality of hearings within an EA process, and the broader informal process surrounding EA. In the latter case, the informal scoping process for Great Whale includes all the other avenues of influence that were filtered into the EIS guidelines. At a broader level, informal processes are those which support and help uncover creative forces within communities. They feature flexible prerequisites for involvement, and pay close attention to the values and attitudes of participants (Jacobs, Brown & Mulvihill, 1993).

#### Northern and southern locales in the Great Whale scoping process

While the Great Whale scoping hearings were conducted in several northern communities, the process also featured southern sessions in Montreal and Val D'Or. The evaluation thus differs with respect to the north/south locales; formality is generally more appropriate in the south, while a greater measure of informality is generally necessary in the north. Flexibility or adaptiveness is also a key consideration. Many of the procedures used in the Great Whale scoping sessions were derived from legal frameworks and are standard practice for consultative processes. How they were applied and adapted in the North is of interest in this analysis.



Since EA is a multi-phase process, the appropriate degree of formality or informality varies with the particular phase. It is particularly important to have a degree of informality at the scoping stage, since it is exploratory and somewhat less focused than subsequent hearings on the project and the EIS. Efficiency is also a consideration here. As a preliminary step in a potentially long process, scoping must be conducted relatively quickly. The question of appropriate formality and informality is perhaps better aimed at the subsequent full public hearings stage of EA. On the other hand, scoping is a key step that sets the stage for the EA process. An inappropriate balance of formality and informality at this early stage would set an unwelcome tone for the succeeding phases.

#### Key questions from BEARP

Sadler's questions that were applied to the BEARP process are relevant to the present analysis. As a general question, he asked:

"Were the methods and techniques of participation tailored to circumstances and to the capabilities of the publics affected by or interested in the proposal?"

With respect to formality, he asked:

"Did the procedures in place for the conduct of the review conform to accepted notions of due process?"

A link can be hypothesized between appropriate levels of formality and informality and the degree of participation elicited in EA - the better the balance, the more conducive the process is to participation. In the BEARP evaluation, Sadler asked:

"Did the procedures for informing and involving the public foster continued and considered participation, especially by local communities?"

Sadler's questions, and particularly his more general one, are retained as relevant criteria. A fourth question is relevant also: what else could have

been done, if anything, to promote a better balance of formality and informality?

In assessing the appropriateness of the level of formality and informality, some weight must be given to the assessment of the participants themselves, where this is discernible. Some evidence in this regard is found in the hearing transcripts. The importance of these comments has limits, however. Parenteau found in his study of EARP, BAPE and the Ontario EA process that many comments in hearings concern the process itself rather than substantive issues. In this context, a high proportion of critical comments should be expected and do not necessarily mean the process was not successful - after all, people come to public hearings with a critical mindset. Sadler found much the same, estimating that fully two-thirds of the comments in the BEARP public hearings were focused on process rather than substance.

#### Describing the Great Whale scoping hearings

The Great Whale scoping hearings were described in Chapter 3. The salient points of the description as they relate to the present analysis are as follows:

- they were not formal, judicial hearings;
- not all intervernors were satisfied that their concerns were heard or that they had had adequate opportunities to make them heard;
- audiences were asked to focus on issues and ensure that their input was guideline-specific;
- audiences were asked to avoid issues of project justification, as opportunities for this would be provided later in the EA process;
- intervenors frequently ignored the direction of the panel and addressed issues that were beyond the boundaries of discussion;
- time limits for intervenors were enforced more rigidly in the south than in the north;
- the Chairmen generally tended to be more lenient in the north regarding rules of procedure;
- in the south, relatively few individuals made presentations; most were representatives of organizations; the reverse was true in the north;



• much of the input in the northern hearings was metaphorical and not guideline-specific.

Finally, the character of the northern scoping hearings as described in Chapter 3 agrees with Sadler's description of the BEARP community sessions as "ritualized informality". He describes the sessions:

"For the record, the style of community sessions should be briefly outlined. It may be summarized as one of 'ritualized informality'. The Panel usually occupies a head table in the local community hall, flanked on one side by the proponents and on the other by a bank of electronic recording equipment. Members listen to a succession of community spokesmen. The majority of the audience listens impassively. Others at the back of the hall talk more animatedly. Young children wander in and out. Standing or sitting, more off guard than at the general sessions, are the support cast of the proponents and participating agencies. Community sessions are part public hearing, part local event; at the same time both serious and unaffected." (Sadler, 1990, p. 44)

With these images, questions, criteria and qualifications in mind, the analysis follows below.

# 4.2.2 Analysis I: An appropriate level of formality?

Formality and informality are dealt with discretely in this analysis, even though they are different sides of the same coin. Dealing with them separately allows in some cases the asking of the same questions but from a slightly different perspective.

# The question of double hearings

The Great Whale scoping process did not feature double hearings - at least not in the sense of the Berger or BEARP cases. One session was held in each of the communities, at which all oral input was gathered. These hearings provided the only official opportunities for oral interventions at the scoping stage. In general this format seemed appropriate given the preliminary nature of scoping. Double hearings might have been better suited to subsequent full sessions when the public was invited to comment on the EIS and address more fundamental issues. On the other hand several intervenors in northern communities (or northern participants in southern hearings) expressed dissatisfaction with the rushed character of the scoping hearings. Some wanted much longer hearings, in less compressed time frames and seemed not to care about the restrictive mandate of the panels in conducting the scoping. The following comments typify the reaction of participants to the time limits of the hearings:

"I believe I have over five minutes or so to speak on the topic of the five thousand years of our life on our lands." (Paul Dixon, Cree hunter: Montreal, March 17, Vol. 3, p. 11)

Chief Robbie Dick, a Cree leader from Whapmagoostui, made a number of comments regarding the format, atmosphere and schedule of the scoping process:

"Il a également ajouté que nous devons prendre tout le temps requis pour faire nos déclarations et il ne faut pas qu'on se sente bousculés dans le processus." (Chief Robbie Dick, Whapmagoostui, January 27, Vol. 1, p. 31)

Peter Kattuk, the Mayor of Sanikiluaq, made several references to the rushed feeling of the hearings. (e.g. Sanikiluaq, March 11, Vol. 2, p. 11)

Complaints regarding the availability of time were also heard in Val d'Or:

"I think we are taking too little time to talk, when we take only three (3) days, when you look at the amount of damage that will take place." (Mr. Charles Cheezo, Waskaganish, in Val d'Or, February 26, Vol. 1, p. 102)

Finally, there was also discontent in Chisasibi:

"I'll end right there because I don't believe that ample time is given to interveners to express their concerns." (Larry House, Chisasibi, March 5, Vol. 2, p. 51)

On a slightly different note, some intervenors argued that the modes of expression of native participants were by nature more time-consuming since they involved stories:

"We do not want to be pushed to provide to express our concerns. Some of these things are hard to explain and make people understand." (Kuujuaraapik/Whapmagoostui, March 10, Vol. 8, p. 42)

Likewise, a Cree elder reminded the panel that his intervention could not be shortened and still retain its significance, since it was part of an oral tradition:

"Although he respects the fact that you told him make his example brief, but as far as native people are concerned, and as far as the experiences that people have had, it is extremely difficult to make things short and sweet and brief and to the point. Descriptions of these events don't warrant that." (Mr. Robbie Matthew Sr., Chisasibi, March 5, Vol. 3, p. 16)

#### Confusion regarding purpose of the hearings

It can be argued that the confusion that characterized the scoping sessions might have been reduced had less formal, Berger-style community-style hearings with open-ended time frames been held in the northern communities. It is equally likely, however, that greater clarity of purpose among participants would have been achieved through better advance work in the communities, prior to the scoping hearings. The EA and scoping processes could have been made less abstract and more transparent to the northern communities through better information and education programs. Some effort was made in this regard - "community representatives" were hired by the Support Office to liaise with communities and the panel secretariats disseminated information. These efforts were too rushed and last-minute, however, and one result was that many attendees at the hearings were confused and dissatisfied.

In this context a double hearings format would have had value in terms of reducing tensions, allowing community members to "let off steam" and providing two fora instead of one. Given a choice of more formal, official, hearings, and less formal ones, intervenors would have found the process more accommodating. On the other hand, it can be argued that the differences between the Montreal and Val d'Or hearings and the northern ones were pronounced enough to constitute a kind of double hearings

approach. The hearings in Montreal were considerably more formal and tailored to a different set of intervenors; they approximated "general" hearings. In both venues, those who favoured formality were given the opportunity to table written submissions.

In summary, the double hearings approach was not used and some opportunities were missed to make the process more accessible and understandable to northerners. At the scoping stage, the double hearings format was not appropriate and would have constituted "overkill". It was appropriate, however, for a diversity of approaches to be used, and for different styles of hearings in the north and south. Finally, better advance work in the northern communities was warranted to better prepare stakeholders. The panels could have been more proactive in planning for the needs of northern participants whose needs extended beyond those catered to by a standard hearing ritual.

#### Performance of the Chairs and Panels

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In the BEARP case, Sadler found that the seven member panel was unwieldy, suggesting that perhaps half that number would have been more appropriate (Sadler, 1990, p. 34). When all panelists for the Great Whale scoping sessions were assembled, they more than doubled the number of the BEARP panel. There were 16 panelists in Montreal, and in general they sat silently as the hearing unfolded, giving an unwanted impression of inefficiency and formality. An advantage of this large panel was its display of diversity in terms of native and non-native members. The potential of this large and diverse panel was not optimized, however, since many panelists did not interact with the chairs or the audience, other than to field occasional questions.

As is implied by their titles, the chairmen controlled the hearings, influencing the tone and enforcing rules of procedure. The three chairs spanned a spectrum of formality, and their respective personalities and experience had considerable impact on the tone of the hearings. This was not problematic in Montreal and Val d'Or, but it proved problematic in some of the northern hearings, where the more formal approach was counterproductive. Finally, the presence of three alternating chairmen could have posed some problems of consistency. Sadler notes that process credibility is at risk if a panel is too inconsistent in its rulings and procedures. In BEARP there were mixed views on whether or not the panel was consistent in its rulings (Sadler, 1990, p. 43). In the Great Whale scoping process there was little complaint from participants in this regard. What complaints were made centered around the availability and allocation of time for intervenors. Once again, the early stage in which scoping takes place likely meant that audience expectations of consistency and formality were lower than they might have been later on in the process once precedents had been established.

In general, the process featured pronounced differences between panel styles in terms of formality. Participant observation and analysis of the transcripts confirms a pattern in which the federal chairman and panel was the most formal; while the KEQC and COMEV were less formal in both the southern and northern settings. In particular, as noted below, the federal panel's formality was counterproductive in northern communities. This suggests that EA experience in northern communities, as well as established stakeholder links made the JBNQA panels more comfortable in the role, while EARP remained a more foreign presence in the north.

#### Atmosphere and procedures in the hearings

In terms of atmosphere, Sadler's description of "ritualized informality" was applicable to the northern hearings. While the hearings were generally more relaxed in the north, political tensions provided drama in each session. Moreover, some level of formality was dictated by the size of the turnout for hearings. It is difficult to be informal with audiences in excess of 100 people, as was usually the case. Formality, or rigour and structure, are also required under the various laws and regulations governing the Great Whale EA process. There is no evidence that the scoping process was not formal enough or that due process was not carried out. Nevertheless, some complaints were made by participants. In Sanikiluaq, for example, Dr. Terry Fenge, representing the Tungavik Federation of Nunavut, raised critical questions regarding the absence of federal agencies, and by extension seemed to be arguing indirectly that there was in this regard a certain lack of necessary formality:

"Indeed, I find it very strange that in this location, you're holding hearings in Sanikiluaq in the Northwest Territories, that it does not appear to be anybody in this room from the two (2) main federal agencies that have jurisdiction and responsibility here in this area. That is Fisheries and Oceans and Northern Development." (Dr. Terry Fenge, Sanikiluaq, March 12, Vol. 3, p. 79)

In the same vein, one non-governmental organization, the Canadian Arctic Resources Committee, questioned the process, suggesting that preliminary EIS guidelines should have been released to the public prior to the scoping hearings, and noting that this was common practice in EARP. To this, the Chairman replied that the guidelines would be released some time after the hearings but before they were finalized, thus providing opportunity for public comment.

#### Provision of due process and opportunities for input

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All reasonable efforts were made to provide equal opportunities for input. Input was duly recorded and disseminated. Since a measure of formality was preserved at all times, the process was never completely appropriated by the communities or interest groups. Some organizations were quite influential - Makivik Corporation and the Grand Council of the Crees - but these were, after all, principal stakeholder groups. The panels and support office were responsive to all reasonable requests for opportunities for intervenors to influence the scoping process. The process will also be judged, however, not only in terms of how formal, equitable and responsive it was to input. Since the process was somewhat abstract to many participants, the panels and support office will also be judged in terms of how effective they were in actively bringing out the input of stakeholders. Beyond rigour and responsiveness, flexibility and creativity was required. One valuable movement in this regard was the use of informal cross-examination in the Montreal hearings, wherein the panels would question intervenors. This was done to some extent in the northern hearings, but more gently and less rigorously.

#### Flexibility regarding scheduling of hearings

The panels showed more rigidity than flexibility with respect to time constraints. A limited number of days were allocated for hearings in each community, although participants made it clear that they found opportunities to be inadequate. In Sanikiluaq, for example, participants wanted to continue but the panel left for the airport as scheduled, leaving an impression of abruptness. The Sanikiluaq hearings ended too abruptly for some local stakeholders, including Mayor Peter Kattuk:

"It's always like this when Inuit have meetings. Even though there's people that still want to talk or have....raise their hands to make comments or say what they want to say, when the meeting ends, it ends, and we have no further way of saying it." (Sanikiluaq, March 12, Vol. 3)

Although weather conditions warranted an early exit, and although the local people were assured that additional opportunities would be available in Montreal, many appeared to be unhappy with the abrupt ending.

An intervenor in Umiujaq was equally unhappy with the time available:

"She is saying that she does not agree that the session will end tonight, because we were told that the sessions will continue tomorrow. Being that the subject that is being talked about here or discussed here is extremely important, she believes that the people from here should be given more time or all the time necessary for them to voice their concerns and questions."

(Unidentified Inuit intervenor, Umiujaq, February 5, Vol. 1, p. 81)

In this particular case another hearing was scheduled for the following morning. This is illustrative, however, of the need for greater flexibility, since the intervenor seemed bothered as much by the prospect of the hearing adjourning for the evening as she was by it ending altogether. This is not surprising, since it has been noted that in Cree and Inuit cultures meetings tend to continue until all parties are satisfied that adequate discussion has taken place.



Likewise, participants in Kuujjuarapik/Whapmagoostui had more to say but the hearings were not extended beyond the allotted time schedule. In a brief on Inuit participation submitted to the panels, Makivik Corporation commented on this:

"Among the concerns noted as to Inuit participation in the assessment process were...the feeling that insufficient time had been allocated for the participation of the Inuit in the scoping process." (Makivik, 1992, "Summary of Concerns of Inuit Intervenors Stated at Public Meetings on Scoping of Guidelines for the Great Whale Project (Part 2) p. 21).

There were valid reasons for the time limits and the panels were justified in enforcing them. But, as pointed out by Sadler, Berger, Brody and others, formal hearings are inherently maladapted to the rhythms of northern communities. Since it is apparent that even reasonable time limits will fail to satisfy many participants, a double hearings format may be an acceptable compromise. Had the Great Whale EA process reached the subsequent EIS hearings stage this might have warranted serious consideration. One lesson to be drawn is that it is unrealistic to expect all, or even most participants to understand the role and limitations of the scoping process. In retrospect, northern intervenors were justified in going beyond the boundaries of discussion since the hearings proved to be their only opportunity to make their views known regarding the project. Flexibility on the part of the panel is therefore very important. The chance for people to express their views always has value, particularly in a context where formal opportunities are few.

#### Panel flexibility

Despite the dissatisfaction of a considerable number of intervenors, the panels were receptive to feedback concerning timing and scheduling of the hearings, making accommodations where possible. In some cases the panels negotiated with participants in this regard. The Chisasibi hearings featured discussion and negotiation between intervenors and the Chairman regarding time constraints:

"Plusieurs personnes se sont inscrites pour intervenir ce matin. J'ai quinze (15) noms sur la liste. Le problème est le suivant: nous avons moins de trois (3) heures. Et comme en principe nous permettons à chaque personne d'intervenir pour vingt (20) minutes, quelquefois un peu plus longtemps à cause des problèmes de traduction, nous - ou plutôt vous devrez prendre une décision ici à ce moment-ci. Il y a trois possibilités: ou bien les gens acceptent de fair leur présentation de façon plus brève pour permettre que tout le monde soit entendu, ou il pourrait y avoir une combinaison de certaines présentations, par exemple deux (2) ou trois (3) personnes qui ont le même message et qui s'entendent pour que l'une d'entre elles liver ce message. Donc au lieu de quinze (15) présentations on en aurait disons dix (10), ce qui serait possible pour une matinée. La troisième possibilité que nous n'aimons pas c'est que cinq (5) ou six (6) personnes n'auraient pas eu le temps d'être entendues et c'est maintenant notre dernière audience malheureusement ici." (Chairman Paul Lacoste, Chisasibi, March 6, Vol. 5, pp. 5-6)

In fact, twelve intervenors spoke, although some were considerably briefer than the allotted twenty minutes. One intervenor complained about the lack of time:

".....je ne serai pas capable de dire tout ce que je voulais dire à cause des problèmes de temps mais je crois que les vingt (20) minutes que vous nous avez données ne sont pas suffisantes. Vous avez passé vingt (20) ans à détruire notre territoire et c'est la prèmiere fois que j'ai une chance de parler." (Kathleen Bearskin, Chisasibi, March 6, Vol. 5, p. 30)

In this instance, Mrs. Bearskin proceeded to make a twenty minute intervention that included a poem.

In Kuujjuaraapik-Whapmagoostui, Grand Chief Matthew Coon-Come lobbied for extended hearings, and was eventually rewarded:

"I think it is very clear, Mr. Lacoste, Mr. Jacobs and Mr. Diamond that there are a lot of people that want to make a presentation, that would like to be heard and you would have to seriously consider of allowing that time or coming back again. It is very difficult to be able to digest yesterday's presentation for most people and to be able to try to formulate their positions." (Grand Chief Matthew Coon-Come, Kuujjuaraapik-Whapmagoostui, January 28, Volume 3, p. 31)

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The panels returned in March for more hearings. Also in Kuujuaraapik-Whapmagoostui, the panels had to ensure an equitable balance of opportunity between Inuit and Cree intervenors, and were taken to task when imbalances were perceived. In some cases, the chairs and panels were able to balance formality and informality from by requesting supporting documents from intervenors, thus ensuring a measure of formality.

#### Formality in southern hearings

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The Montreal hearings featured debates regarding rules, procedures and formality. There were perceived inequities amongst non-native intervenors regarding opportunities for input. Some felt shortchanged by the process:

"Nous aimerions, d'entrée de jeu, exprimer notre déception quant à l'horaire que s'est donnée la Commission. Alors que de 46 heures d'audience ont eu lieu dans trois localités en territoire autochtone, seulement 36 heures ont été prévues dans les villes de Val d'Or et de Montréal pour permettre aux groupes de tout le reste du territoire québécois de se faire entendre. Et même nous, cet après-midi, monsieur le président, on nous a demandé si c'était possible de réduire notre intervention. Nous sommes surpris également que les autochtones aient de nouveau l'occasion de se représenter." (M. André Tremblay, Syndicat des Métallos, Montréal, March 18, p. 33)

Cree leaders, for their part, showed evidence of a double strategy - while they had seemed to want a less formal process in the northern hearings, on occasion they pressed for a more broader, more inclusive and perhaps more formal hearing in Montreal:

"Nous avons également appris que les Américains, qui voulaient participer pendant ce processus et ces audiences, et beaucoup d'autres groupes canadiens et d'associations ont été rejetés par les panels et donc, ils ne pourront plus présenter leur témoignage. Nous pensons que ceci est tout à fait inacceptable." (Chief Matthew Mukash, Montreal, March 18, Vol. 4, p. 31) In this instance the Chairman replied that no group had been rejected and defended the openness of the process, noting that some "reasonable" limits to access had been imposed. In general, however, this debate reflects a general tension regarding time limits and rules in the Montreal hearings.

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The Montreal hearings also featured pressure from the business lobby for the panels to conduct a quick, efficient, formal review without delays, abiding closely to the JBNQA. Some members of business groups expressed concerns that the panels could be manipulated by special interest groups or native groups:

" Les commissions et comités ne devront jamais être utilisés pour freiner le processus d'évaluation en s'associant, entre autres, à des procédures dilatoires, manifestement vicieuses. La directive devra être émise immédiatement après cette consultation...compte tenu que certains d'entre vous ont travaillé à sa rédaction depuis des années.....La seule façon d'éviter d'être manipulés est de s'en tenir strictement aux termes de la Convention. La transparence et la légitimité du processus d'évaluation en dépend." (M. Victo Murray, Syndicat des Métallos, Montreal, March 18, pp. 69-70)

In summary, the panels had to perform a balancing act in both the northern and southern hearings with respect to appropriate formality, albeit with different challenges depending upon locales.

# 4.2.3 Analysis II: An appropriate level of informality?

First, there were many examples of "ritualized informality" in the northern communities, similar to Sadler's characterization. The Chief or Mayor would often introduce intervenors one by one, lending a formal sense of occasion to the proceedings. In terms of atmosphere, there were many light moments to the hearings. In a communiqué, the Support Office claims that the panels created an openness, receptivity, and a comfortable atmosphere for intervenors. While the Support Office does not elaborate on this, much of the effort in this regard owed to the levity introduced by the chairmen and the panelists. Panel membership was also a key element. Although EARP may appoint panels of between three to nine members, they chose a small panel to make the joint review somewhat less large. There was also a substantial aboriginal representation on the panels, owing largely to the provisions of the EA procedures established under the James Bay and ... Northern Quebec in terms of native membership.

#### Flexibility with respect to translation

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In many instances the Chairmen needed to be flexible about translation, and usually responded adequately. Most, but not all of the translation was performed by the official translators. In some cases, at the discretion of the Chairman, the intervenors themselves translated their own or another person's input. In other cases, the Chairmen themselves translated interventions. The flexibility shown in this regard helped maintain a certain flow of the hearings, which could otherwise have been much more ponderous.

#### Attention to links to informal community processes

There was other evidence of adaptations made to make the process less formal. One was the reduction of the number of panelists in certain of the northern hearings. While the EARP and JBNQA regulations are explicit enough, the MOU agreed to by the panels anticipated the need for flexibility. The degree of formality was changed at the discretion of the Chairman to some extent. There was some outreach to informal processes, such as the recognition of input through community radio in the northern communities. It cannot be said that the process succeeded, as Gagnon et al (1993) recommend, in: "...extending the formal procedures into less formal settings, where avenues for community influence are greater." The panels did, however, maintain close links and receptivity to key stakeholder groups such as Makivik Corporation, The Grand Council of the Crees, and other northern community mechanisms. To some extent this conforms to Gagnon et al's (1993) criterion of "...appropriating the formal SIA procedures to community priorities". It is clear that the stakeholder groups exercised much more influence in the scoping process than did the proponent. In this sense, the hearings were markedly different than BAPE hearings described by Gariépy, who noted that the proponent tended to dominate proceedings.



The participants, to a great extent, dictated the informal tone of the hearings, leaving the panels to respond in kind. In this regard there was a high degree of individual influence in the northern hearings. Intervenors were able to change the tenor of the process with highly personal presentations and the panel was receptive to this. The remoteness of the northern communities determined that the participants would be predominantly native. The process was therefore subject to northern customs. Adaptations made in this regard included recognition of the Cree goose hunting season, which was taken into account in the scheduling of hearings, as were other rituals, including weddings and funerals.

#### Panel leniency

As noted earlier, the panels were lenient in allowing northern intervenors to stray beyond the terms of reference for the scoping hearings. Sadler, in the context of BEARP, comments on this:

"A commitment to allow everyone the opportunity to be heard must be balanced against permitting non-productive debate of peripheral matters. This is a fine line to walk, especially in the North where those potentially affected by the proposal have much to say because they have a lot to lose. In such circumstances, a liberal interpretation of openness is arguably preferable to maintaining a tight rein on the thrust of intervention and discussion." (Sadler, 1990)

There is evidence of this kind of flexibility in the Great Whale scoping hearings. Much of the input was of a peripheral nature when considered in direct relation to the task of EIS guideline preparation, but was important in the broader context of development planning in the region.

#### Comfort level of intervenors

While many northern participants may have felt somewhat intimidated by the public nature of the process and were reluctant to intervene, many of those who did participate appeared to respond positively to the atmosphere of informality and openness. The Great Whale scoping process was more open than the cases described Gagnon et al (1993), in which stakeholders



were invariably frustrated. In Great Whale, rather than having to defend their presence, local experts, leaders and elders were accorded an honored place. As in many public hearings, certain intervenors were in effect accorded higher standing than others; in this case it was appropriate.

Despite the efforts to promote a relaxed atmosphere, some intervenors felt nervous, even threatened or offended by hearings. For example:

"She said hello to everybody, and she will do her presentation in Cree, and she says by sitting here, she says, it seems by sitting here I feel that I am the stranger. It's as if I am guilty of something. But she declares that we are not guilty, we are looking out for the land and things that come from the land." (Mrs. Doris Spencer-Bobbish, Chisasibi, March 5, Vol. 3, p. 35)

The panels minimized barriers inherent in the hearings format to a significant extent. While the net result fell considerably short of transparency, efforts were made to demystify the process. There were limits, however, to the panels' proactivity in creating opportunities for latent opinions to be brought out. Despite the hiring of community representatives in the northern communities, no particular training was provided to enable people to participate. More advance work in this regard would have been useful.

# Summary of analysis of informality in the process

The panel made impressive efforts to make the process appropriately informal, and made significant adaptations in the northern hearings. In fact, in the northern hearings it appeared to be more a case of preserving formality in a very informal situation. The panels responded to the participants, who were informal. On the whole, the Great Whale hearings were informal, except for the Montreal sessions, which was still less formal than, for example, the Ontario EA process. Given the fact that Berger-style hearings were not held, the Great Whale hearings were sufficiently informal.

It is important to note the highly political nature of the Great Whale issue meant that in some cases the main "game" lay outside the formal EA and scoping process. Stakeholders thus approached the formal process as only one of several potential strategies and avenues of influence in this issue. Other avenues included litigation, publicity, lobbying, and the forming of strategic alliances with international environmental advocacy groups. Some initiatives may have been effective in influencing the outcome of the issue but were not aimed at the scoping process; these included litigation, high profile protests such as the paddling of an odeyak by Cree and Inuit on New York's Hudson River, or the submission made by opponents of the project to the International Water Tribunal.

Meanwhile, for the average person affected by the project, the scoping hearings were the primary opportunity for influence. Expectations of the scoping process may therefore have differed among participants - for some they were the only game, while for others they were one of several. The informal process is risky and unpredictable. Major and minor stakeholders alike appeared to recognize that they could not operate too independently of the formal process and expect to have guaranteed influence. In summary, the expectations and strategies of participants in the scoping process were affected by their view of the formal process and by the extent and nature of their involvement in informal processes.

# 4.2.4 Discussion: an appropriate balance of formality and informality?

The key questions identified in the introduction of this section have been addressed. First, Sadler's question was asked: "Were the methods and techniques of participation tailored to circumstances and to the capabilities of the publics affected by or interested in the proposal?" The evidence shows that the panels made impressive efforts in this regard and were largely successful. As argued above, there was room for improvement in some instances.

Sadler's second question was: "Did the procedures in place for the conduct of the review conform to accepted notions of due process?" To this question only a preliminary answer can be ventured, since the full review did not

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take place. Moreover, "due process" is a rather interpretive notion within the context of a controversial intercultural project's scoping process. On balance, it can be concluded that due process was served in the scoping process, although it was defined rather loosely as the fair and open consultation of stakeholders whose input would be duly considered in the development of EIS guidelines. Working within this definition, the panels were able to satisfy most stakeholders. More significantly, perhaps, critics of the process were generally unable to demonstrate convincingly that due process had not been served, or to articulate a better notion of due process.

Sadler's third question was: "Did the procedures for informing and involving the public foster continued and considered participation, especially by local communities?" First, local communities were targeted in the process, and their participation was fostered within limits discussed earlier. The input was not "continued"; since the process ended prematurely. The key criticism here, therefore, relates to whether or not "considered" input was fostered. The panels heard many hours of very thoughtful, valuable interventions; in this sense it is easy to conclude that the input was considered. In some cases, as noted above, intervenors seemed to be confused about the purpose of the process, and their input was consequently not guideline-specific. On balance, however, the input heard in the process was overwhelmingly "considered" and it can be concluded that the skills of the panels were supportive in this regard.

The fourth and final question was: What else could have been done, if anything, to promote a better balance of formality and informality? A common theme noted throughout this section has been the value of preparation or advance work. To the extent that the panel did not achieve an appropriate balance of formality and informality in a given part of the hearings, better advance work in the communities would usually have minimized what problems arose.

In light of the Great Whale scoping hearings, several observations seem in order with respect to balancing formality and informality.

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• Although large panels are problematic and can be unwieldy, one potential advantage is the diversity of membership and therefore diversity of approaches.

• The Great Whale scoping experience underlines the importance of advance work in order to prime the communities for effective participation. Beyond this, the more involvement communities have in the actual design of the process, the better the quality of the experience. In light of the BEARP experience, Sadler recommended that :"The format and agenda of community sessions should be established and designed in consultation with local residents." (Sadler, 1990, p. 63) This was echoed by Chief Robbie Dick:

"If the committees want to hear the concerns and the views of our people, they should let us define how much time we need to review and give directions to the committees, because it is not fair for our people to be told, look, we've got so much time and you've got to come up with something otherwise whatever is decided then will be the process." (Chief Robbie Dick Kuujjuaraapik-Whapmagoostui, January 28, Vol. 3, p. 53)

In fact, local people did have some input into the allocation of time and format of the hearings. Key stakeholder groups were consulted in advance, although this did not necessarily leave them adequately prepared. Rather than obtaining a high level of local buy-in to the process in advance, the panels relied mostly on their improvisation skills to sort problems out "on the ground".

• The objective of gathering input was realized, if not always smoothly. The objective of placating the public, if this was an objective, was not realized entirely.

• The responsibility to make sure the scoping process works is collective; the panels play a key role but are not alone.

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## 4.3 RECEPTIVE TO MULTIPLE KNOWLEDGE SYSTEMS AND PATTERNS OF EXPRESSION

The purpose of this section, divided into two parts, is to determine to what extent the scoping process was receptive to traditional ecological knowledge (TEK) and multiple patterns of expression. The general method used is to summarize what was heard in the scoping hearings in terms of TEK and patterns of expression, and then to analyze how this input was processed.

The first part of this section begins with a theoretical discussion of the use of TEK in EA. The principal analytical questions are elaborated, and subcriteria are discussed. The analysis then moves on to the evidence of the case study, beginning with the question of the openness of the panels to TEK. The scoping hearings are then described from a perspective of receptiveness to TEK, and indicators of receptiveness are analyzed. The EIS guidelines are then analyzed in tabular form to determine to what extent the TEK heard in the hearings was captured and reflected. Limits and barriers to receptiveness to TEK in the scoping process are discussed, and Part One of the section concludes with an overall evaluation.

The second part of this section begins with a theoretical base which discusses the challenge of incorporating various patterns of expression in a scoping process. Key analytical questions and sub-criteria are presented, and lessons from theorists and other case studies are discussed. The evidence of the case study is then analyzed, beginning with the question of the openness and preparedness of the panels to receive various patterns of input. The patterns of expression heard in the scoping hearings are then analyzed, along with selected evidence of intervenor attitudes toward the receptiveness of the process to their input. A comparative analysis of the northern and southern hearings is presented. Finally, the "non-guidelinespecific" input received in the process is analyzed, categorized into themes and metaphors, and compared with the EIS guidelines in order to determine the level of support in the latter for this input. This part of the section concludes with an overall evaluation. A summary of the findings with respect to both TEK and patterns of expression concludes the section.

## 4.3.1 Elaboration of the analytical questions

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Two important points underpin the evaluation in this section. The first is the value of Traditional Ecological Knowledge (TEK) and the broadly recognized need to address it in environmental assessment where appropriate. The second, and strongly related, point relates to the challenge of understanding, processing and incorporating different patterns of expression in EA. Both challenges faced the panels and support staff in the Great Whale scoping and EA process. As argued previously in this thesis, however, the experience of scoping and EA to date indicates that there is still much to learn about these challenges.

The two elements under examination in this section - receptivity of the scoping process to alternative knowledge systems (i.e. TEK) and patterns of expression - are different but related. A lack of receptivity to the latter would seem to preclude receptivity to the former. To put it another way, the metaphorical input of intervenors in the process may function as a bridge between knowledge systems. While TEK may not be accessible in a form that fits easily into EA without considerable prior research having taken place, some of the main concepts and values underlying TEK may nevertheless be communicated in the process.

The questions addressed in this section apply to the overall scoping process, with the review panels being the principal focus. Principal data are the scoping guidelines and transcripts; the main analytical tools are research notes and content analysis. Generally speaking, the question being addressed is whether or not the process was receptive to TEK and multiple patterns of expression. Barriers or constraints to receptivity are identified and discussed. It is assumed that linguistic barriers, while significant, were overcome through effective translation. Webster's definition of "receptive" is acceptable for the present inquiry: "able or inclined to receive; open and responsive to ideas, impressions, or suggestions."

More specifically, questions or relevance to this section include the following: Was the scoping process receptive to TEK, local or informal



knowledge, or knowledge systems other than Western science? Was the scoping process receptive to different patterns or modes of expression on the part of intervenors? Were all intervenors able to be understood and was their input duly considered for incorporation into the guidelines? In judging what constituted relevant input, did the panels favour or de-value certain patterns of expression? Although scoping was a preliminary step in the overall EA process, did the panels take first steps, at least, to keep options open in terms of using TEK in subsequent steps?

## 4.3.2 Receptiveness of the scoping process to TEK

#### Theoretical base

With respect to TEK, there are some recent examples of attempts to document and apply these knowledge systems in wildlife, fish and resource co-management (Freeman & Carbyn, 1988; Johnson, 1992; Nakashima, 1990; Berkes, 1989; CARC et al, 1993; Usher, 1987; Colorado, 1988; Cole, 1993; Mailhot, 1992). The list of encouraging case studies is growing. With regard to EA, the application of TEK remains more theoretical than real because of significant scientific and administrative constraints. It is probably most accurate to say that it is in an early developmental stage, and was impeded throughout the 1970's, 1980's and early 1990's by legislative or policy frameworks for EA that were written before there was a broadlyrecognized need to address TEK. This has changed recently, but the methodological problem of integrating TEK with western science in EA remains (Mailhot, 1993). In order for significant progress to be made, project proponents will have to be instructed explicitly to address TEK, and they will need guidance as to how to proceed in doing so. Once initiated, the integration of TEK and western science in EA will likely gain momentum. Pilot or watershed cases are needed. As argued previously, Great Whale presented an ideal opportunity for the application of TEK in EA. The evaluation in this section Centres around how receptive the scoping process was to multiple knowledge systems - most importantly TEK because it represents the primary alternative system in question.

The first general question to be asked is whether or not the scoping process was receptive to TEK, local or informal knowledge, or knowledge systems other than Western science. Generally speaking, evidence in this regard centres around the amount of time accorded to these kinds of interventions in the course of the process, or their overall proportion in the scoping transcripts. Next, it is necessary to determine whether, or to what extent, the input based on TEK, local or informal knowledge is reflected in the EIS guidelines. How skillfully this latter interpretive task was performed is a question for section 4.4, which focuses on "Interpretive capacity/function".

TEK was discussed in the Conceptual Framework. Mailhot's definition is adopted - the "sum of facts and ideas possessed by a human group about its environment.". Mailhot's other points about TEK are accepted as well that is more qualitative, with a symbolic dimension and a conception of the universe embedded in it (the ideological aspect). It was suggested earlier, and will be argued throughout the analysis, that attention to this ideological aspect is important in intercultural EA processes.

## Evidence of receptiveness to TEK

The review panels indicated a receptiveness to TEK from the outset of the scoping process. This receptiveness can be attributed to several factors, including the strong native membership on the panels; the inclination of some of the more progressive and experimental non-native panelists; the strong influence of and central role Inuit and Cree leaders and organizations in the process; and the general state of the art of TEK and EA at the time of the scoping hearings. After years of academic discussion, native lobbying and pilot studies, TEK had gained a measure of respect, recognition and standing EA, in theory if not yet in practice. The inclination of the panels to be receptive to TEK, as evidenced by policy-style statements throughout the scoping process and later by criteria in the EIS guidelines, was therefore quite understandable. Indeed, in an environmental review process of the nature and scale of the Great Whale case, an explicit lack of receptiveness to TEK would have been viewed as retrograde and would have invited strong criticism. Since the willingness

of the panels to receive TEK was clearly stated, the relevant questions are to what extent they acted on this objective, and how they did so.

As argued earlier, actual experience in integrating TEK into EA is very limited and still tentative. It would therefore be easy for an EA process to make mistakes or to proceed with faulty assumptions. An obvious mistake would be to assume that the task of integrating TEK into EA was a simple, straightforward exercise. Paul Wilkinson, speaking on behalf of Makivik, made this point:

"L'incorporation de la connaissance de la terre et l'environnement par les autochtones, c'est très à la mode mais c'est sous-estimé jusqu'à présent. Souvent, on va leur demander des questions et après ça, on oublie ça. Il faut reconnaître que les Cris et les Inuits et d'autres peuples autochtones, non seulement savent certaines choses, mais ils ont des systèmes entiers de comprehénsion et d'interprétation et d'explication de la nature qui sont tout aussi convainquants et aussi puissants, sinon meilleurs que ceux que nous utilisons dans la science occidentale." (Montreal, March 19, Vol. 6, p. 91)

As a first step, it was important that the panels demonstrated knowledge of the nature of TEK. They did so by including a requirement in the guidelines, based on a view of TEK quite similar to Wilkinson's, that the proponent pay close attention to conceptual and symbolic systems as they relate to Inuit and Cree knowledge of their environment. Moreover, the panels showed that they took the study of TEK seriously by arranging for the Support Office to commission a report on the integration of TEK into EA. The principles of this report (Mailhot, 1993) would have served the Great Whale EA process well had the review proceeded. It can be concluded that the panels took the challenge of using TEK very seriously, and that, within the limits of their influence, they took adequate preparatory steps to create a receptive process.

## TEK and the scoping hearings

Acting on their stated intention to be receptive to TEK, the panels heard many hours of oral interventions, and received a number of written submissions that reflect TEK. It cannot be said that the panels were in any way willfully unreceptive to TEK during the scoping hearings. This general receptiveness does not mean, however, that TEK was solicited or gathered in any systematic way. Many interventions reflected TEK, just as interventions framed in the paradigm of western science, knowledge or understanding reflect the system within which they are embedded. The interventions based on TEK contained components of TEK, transmitted through stories, opinions, arguments and other assertions. Pieces of the knowledge system, but not the system itself, were presented and recorded. Just as a televised quote is often termed a "sound bite", many of the interventions contained 'TEK bites", although the latter were more contextualized than the former since EA or scoping is a more thorough information gathering process than television.

Not all interventions made by native participants contained or reflected TEK, but a substantial proportion - at least half - did. These interventions were qualitative, and had symbolic dimensions and conceptions of the universe embedded in them. (see Appendices A and F for examples). These interventions came in the form of stories, concerned the environment or components of it, were often highly value-laden, and were personal and experiential rather than empirical. They were sometimes guideline-specific, although usually they were not.

As a general indicator of process receptiveness to Inuit concerns, a list prepared by Makivik Corporation is useful (Appendix E). The list is an excerpt from a brief submitted to the review panels by Makivik Corporation in March 1992. It lists concerns raised during the scoping process by Inuit intervenors. Makivik's list can be a key tool; if these concerns of Inuit intervenors were all or mostly incorporated into the guidelines, it is arguable that the process was receptive from an Inuit point of view. Some, but not all of these interventions could be considered TEK, but many are reflective of TEK. The indicator functions simply: if the process was receptive to Inuit concerns, which were communicated in ways reflective of TEK, the process was by extension at least somewhat receptive to TEK itself.

A comparison of Makivik's list with the criteria included in the EIS guidelines shows a high level of conformity. Relatively few of the concerns

listed by Makivik were not addressed explicitly or given high priority in the guidelines. The short list of concerns which were not addressed explicitly include: Inuit Heritage; Inuit Values; Inuit-Cree Relationship; Young People Traveling South; Impact of Studies on Animals; and Restoration of Study Sites. All of these concerns were addressed less explicitly in the guidelines; in most cases the wording was slightly different than that proposed by Makivik. This high level of conformity indicates a strong receptiveness of the panels to Inuit concerns in general, and a reading of the scoping transcripts and guidelines indicates the same receptiveness to Cree concerns. There is no evidence that concerns reflective of TEK were devalued or de-emphasized. This analysis is limited, however, in the sense that Makivik's list has been deliberately re-shaped into "guideline-friendly" form in order to assist the panels and Support Office in drafting guidelines. Makivik undertook its own interpretive or reductive exercise in compiling the list. It is unlikely, however, that Makivik, a proponent of TEK, would de-value it.

Aside from specific requirements in the guidelines based on input sometimes reflecting TEK, there are a number of general requirements that, taken together, represent the panels' attempt to construct an EA framework for the proponent that would in its turn be TEK-friendly. This general framework if likely of greater significance than the individual requirements. Many of the latter, as is shown in Table V (p. 170), were drafted with intercultural EA, TEK, and multiple patterns of expression explicitly in mind.

Table V (from master list) lists sections of the EIS guidelines which refer to TEK or other knowledge systems apart from Western science.

## Table V - Support in EIS Guidelines for substantive and process-oriented criteria (traditional ecological knowledge) ipport

## •••=strong support)

Guideline	Substantive criteria	General process criteria	Specific process criteria	Comments
126. Local knowledge; conceptual and symbolic systems	A••	F••• [•• ]•• K•	M••• N•• O• P•••	An explicit recognition of the intercultural challenge of EA.
127. Cultural relativity of values; diversity	A••	F•••	M••• O•	An explicit basis for an intercultural approach to EA.
132. Consultation methodology		G••	M••	Explicit reference to cultural, linguistic barriers to consultation.
134. Cooperative study arrangements			M••	Reference to knowledge gathered by native organizations.
137. Literature review			M••	Reference to TEK.
302. Guiding principles for describing environment	A•	F•• G•••	M• N• O• P•••	Addresses intercultural aspect; valued ecosystem components;human- ecological interface.
303. Description of environment		F••	M•	Requirement that knowledge of each group be addressed.
304. Multicultural definition of environment	A••	F••• G••• [••	M••• N••	Very strong and explicit requirement for intercultural approach to EA.
305. Valued ecosystem components		I•• J••	M• N• O• P•••	Reformulation of problem to recognize cultural diversity.
306. Components valued by each community		F••• H•• J•	M••• N• O••	Explicit requirement to value input of each culture separately.
308. Geographic boundaries		F•• H••	M•• P••	Proponent required to refer to perceptions, knowledge of each group.
310. Historical trends		F• H•	M∙ P∙∙	Reflects a non- deterministic approach; affected groups to shape boundaries to some extent.
378. Land uses			M•• O•	Social structures, symbol systems of natives to be taken into account.



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382. Archaeological and historical study		F••	M••	Close collaboration with Avataq Cultural Institute, Cree Regional Authority required.
384. Social organization and symbol systems		I•	М••• О• Р••	Native systems for explaining changes, dynamics emphasized.
511. Cultural aspects of diet		J••	M•• N••• P••	Proponent given specific guidance, in intercultural terms.
567. Respect for culture	A••• C•••	F•••	M••• N••• O• P•••	A key integrative section, with pluralism emphasized strongly. A synthesis of native concerns.

In terms of its framework for intercultural EA, the Great Whale EIS guidelines differ very substantially from other cases. The explicitness of the requirements for intercultural EA is unprecedented in Canadian experience with EA. Criteria such as "multicultural definition of environment"; "social organization and symbol systems", "cultural aspects of diet"; "guiding principles for describing environment"; "cultural relativity of values"; if not sui generis in EA, comprise an impressive framework that represents a departure from common practice. Unlike other guidelines, there is an explicit discussion of TEK in the Great Whale guidelines - some mention is made in the Military Flying guidelines, for example, but the requirements do not comprise a framework. The Great Whale framework establishes an explicit basis for an intercultural approach to EA; anticipates and addresses cultural barriers to consultation; reformulates problems to recognize cultural diversity; places a high value on values and perceptions of stakeholders; and is inherently open-ended and non-deterministic. The guidelines made it clear to the proponent that a new approach to EA was required - one in which a methodology based on a single knowledge system and conception of the environment would be insufficient. TEK is recognized and valued in this framework.

## Limits to receptiveness to TEK

Although the scoping process was receptive to TEK, and although impressive efforts were made by the panels to set the stage for subsequent use of TEK by the proponent in preparing its EIS, the process stopped short

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of gathering TEK systematically. This should not be viewed as a shortcoming of the process, since the systematic gathering of TEK was not a stated objective of the process. Within the mandate and objectives of the scoping process, however, the panels had considerable leeway to promote the use of TEK in subsequent EA stages. Whether or not they did so is discussed below.

It can be argued that impressive efforts were made to promote the use of TEK. Narratives and stories, recognized vehicles for TEK, were often heard in the process, and were not discouraged except where time constraints were applied. TEK is an oral system, but scoping hearings are not necessarily a natural forum for its expression. The more focused the hearings are, and the more the panels encourage guideline-specific input, the less TEK-friendly the process becomes. As discussed above, however, the "TEK bites" that were gathered had a significant impact on the EIS guidelines. The basis for the framework for intercultural EA can be attributed largely to the form and content of the many interventions made by native stakeholders. Such a framework would not have been as legitimate had so many native intervenors not made strong and vivid presentations that reflected TEK and a particular relationship to the environment. In a sense the guidelines arose organically from the form, spirit and content of the hearings, in which native participants were central.

As argued above, the fact that TEK was heard but not gathered systematically does not mean that the process was not receptive. A number of questions arising from literature on the use of TEK in EA can be asked of the process, however. First, a World Bank sourcebook on EA advocates the involvement of local consultants to take advantage of local knowledge (World Bank sourcebook). In the same vein, the World Bank recommends direct community presence on panels, partly to promote local knowledge, and partly to strengthen the community's capacity for future involvement in EA. The Great Whale scoping process fares reasonably well with respect to these criteria, since there was regional, and sometimes community representation on the panels, depending upon the location of the given hearing. These criteria would be more applicable, however, in a case where



the EA process involved a particular community rather than a large region as principal stakeholders.

Makkay, in a preliminary analysis of the use of TEK in the Great Whale EA, proposes several relevant criteria. First, she proposes that:

"Communication must occur in a culturally appropriate setting that is conducive to both the sharing of knowledge and the proper interpretation of what is said." (Makkay, 1993, p. 9).

While scoping hearings may be conducive to the sharing of knowledge, they are poorly suited to "the proper interpretation of what is said", since the interpretive function occurs after the hearings are over. Therefore, while TEK may be gathered to some extent in scoping, it is not interpreted immediately. As will be argued in section 4.4, which deals with the interpretive capacity of the process, many interventions were made that defied ready interpretation or use by the panels. In these instances, intervenors told stories that, given more time, might well have crystallized into a systematic body of knowledge or view of components of the environment. A skilled interviewer could have taken the time to gather TEK from these individuals. As it was, however, many of these interventions were not conducive to interpretation within the limitations of the hearings format. As the guidelines state, the input was used to "delimit inventory of knowledge relevant to the study of the...impacts" as well as to identify impacts.

The scoping process was receptive to TEK at a superficial level, but was not an appropriate forum for careful gathering of this knowledge. Even if the panels had allowed more time and made the hearings more conducive to the gathering of TEK, it is doubtful that the TEK database for Cree and Inuit is complete and ready to be tabled. A systematic and comprehensive gathering of TEK would be a lengthy process, perhaps exceeding the average EA process in terms of time and resources. For these reasons, an EA process can be supportive of the TEK gathering process, playing a complementary role, but cannot replace the primary research that needs to be done. In the absence of the primary research, and without a pre-existing body of TEK, an

EA panel's role is primarily one of catalyzing and accelerating the TEK gathering process for project-specific purposes. This is problematic also; as argued earlier, when EA is too project-specific it runs the risk of losing context. Finally, an equitable approach might be to have input alternate between western science and TEK in EA. This would require deliberate orchestration by the panels and was not done in Great Whale.

Returning briefly to the Mackenzie Valley Pipeline case, the Berger Inquiry was highly praised for its early acceptance of the validity of TEK (although the term had not yet been coined at the time); the control that native communities exercised over the setting of the hearings; and the time allocated - the panel stayed for as long as people wanted to speak. Theorists agree that TEK must be gathered in a culturally appropriate way, with a sufficient measure of control by the knowledge holders. Related criteria include "culturally appropriate validation systems" and ownership of the knowledge that is gathered (summarized by Makkay, 1993). Penn (1992), in a submission to the scoping hearings, elaborates on this. He argues that TEK must be carried out with a "socially acceptable mechanism"(p. 29). Penn notes that within Cree culture it may not always be considered appropriate for hunters to share TEK with a project proponent (p. 30). He argues that the TEK holders whose expertise is being sought should have opportunity to establish context in which information used. Finally, he submits three more criteria: decision makers need to understand and respect alternative knowledge systems; they need to accommodate TEK on its own terms rather than seeking to mould it into a scientific framework; and the inclusion of TEK holders on the panel is desirable for their familiarity with and respect for TEK.

It is difficult to evaluate the Great Whale scoping process in terms of these criteria, since it was not specifically a TEK-gathering exercise. It is arguable that the process might have been more receptive to TEK had more planning taken place in advance, addressing questions such as the cultural appropriateness and social acceptability of the process; validation systems for knowledge gathered; and time allocation to intervenors. Panel control tended to prevail over community control; community members are "stakeholders" but also "intervenors", the latter term implying

participation in a process in which the stakes are larger than any single person or interest. The issue of ownership of knowledge is essentially moot, since it is accepted that, in a public process such as EA, a common knowledge base or understanding is an objective. Finally, some TEK holders were included on the panels, although their inclusion was not necessarily for reasons of TEK gathering; some of these panelists had been performing their roles for years preceding the Great Whale review.

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The scoping process fared well in terms of its respect for TEK, and the panels, unlike panels in many previous EA exercises, did not seek only to mould the input into a scientific framework. The pluralistic framework set out in the EIS guidelines successfully combines western with alternative knowledge systems. Building on the guidelines, the Support Office commissioned the monograph on TEK and EA by Mailhot, although this report appeared long after guidelines were issued. The report is a useful reference document, but there is no requirement for the proponent to apply its principles. Meanwhile, as the Great Whale review unfolded, a TEK gathering initiative was taking place outside the formal process. The community of Sanikiluaq, the Canadian Arctic Resources Committee and the Rawson Academy of Aquatic Science combined to initiate the "Hudson Bay Programme", an attempt to document TEK and scientific knowledge concerning the Hudson Bay bioregion. Had the Great Whale review proceeded, this input would have been valuable. The fact that the timing of this parallel initiative was not optimal and its findings were too preliminary to be useful suggests that a more open-ended, less approvaloriented EA process is needed to accommodate TEK on its own time frame. The fact that a project has to be reviewed within specified time frames in EA often precludes such integrative efforts.

By developing guidelines that reflect the TEK components heard in the hearings, the panels demonstrated that they were prepared to act on the TEK input. While TEK is recognized and valued in the EIS guidelines, it is up to the proponent to follow the guidelines and actually gather and use TEK. On the basis of the guidelines and Mailhot's principles, the proponent could have been expected to make a strong effort to do so, thus



reconsidering and adapting its consultation program with native stakeholders.

## Conclusion: receptiveness to TEK

The scoping process provided an opportunity for the panels to hear some TEK and take it as indicative of the knowledge inventory, system, values, and concerns of native stakeholders. Scoping is not an appropriate vehicle for the systematic gathering of TEK. TEK is a system that cannot be captured meaningfully in a process structured to gather input quickly. This is less true for Western science, for which EA has tended to be more accessible. In the Great Whale case, the scoping process, which could not do justice to gathering TEK, helped set the stage for subsequent integration of TEK in latter stages of the EA process. The panels' efforts in this regard were impressive; they advanced the practice of the integration of TEK into EA. This is evidenced by the amount of time accorded to TEK-style interventions in the hearings and the overall proportion in the transcripts; the significant extent to which these interventions are reflected in the guidelines; and the explicit requirement for the proponent to prepare an EIS that recognized and valued TEK.

## 4.3.3 Patterns of expression

An overview of the section which follows was provided at the beginning of section 4.3. First, the theoretical base is presented, followed by a brief discussion of the phenomenon of multiple patterns of expression in a scoping process.

#### Theoretical base of analysis

The scoping sessions featured a variety of modes or patterns of expression. Some intervenors spoke in precise scientific terms or in specific ways that could be easily incorporated into EIS guidelines. Other intervenors (usually, although not always native), spoke in more anecdotal terms, telling stories of their relationship to the land and its components. The ostensible products of the scoping process are the set of guidelines issued to

the proponent to assist the latter in preparing the EIS. The most "efficient" way to manage the scoping process might thus be to apply it as a funnel, receiving only clear, literal input that could be easily transformed into guidelines. Thus, when a "valued ecosystem component" or a procedural concern was identified by an intervenor, it would be duly recorded as a potential study requirement for the proponent. But what if an intervention came in the form of a personal story, full of references to the environment in which the intervenor lived, but without a direct appeal for any particular approach to environmental assessment? What if such an intervention was rich in indirect or metaphorical content that had profound, but subtle or indirect implications for EA? If those managing the hearings and preparing the EIS guidelines were not receptive to these types of interventions, the scoping process would have lost much of its richness. In other words, in order to be fair, the process had to be prepared to accord equal value to all kinds of interventions. How these interventions were transformed into guidelines is the subject of the analysis in section 4.4. The present section focuses on the receptiveness of the process.

Attention to metaphorical input takes on increased importance when one considers the arguments made by Mills (1982); and Judge (1991); among others. The basic argument is that language and metaphor are highly indicative of one's perception of the environment and world view, and that these are culture-based. Mills terms this "metaphorical vision":

"It is one of the principal contentions of this essay that the choice of one metaphor rather than another, as a society seeks to comprehend its environment, is the clearest indicator of that society's ultimate demands upon its environment." (Mills, 1982, p. 248).

#### Mills elaborates:

"Metaphor plays a fundamental role in our perception and comprehension of our environment, not just as a means of escape from customary vision but, more importantly, as the means whereby that customary vision first becomes established. Societies differ in "metaphorical vision" because their vision of the world derives from different metaphors.....A society's choice of one metaphor rather than another as the primary vehicle through which it seeks to comprehend



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its environment is highly indicative of the needs and aspirations of that society." (Ibid, p. 237)

In a monograph commissioned by the Great Whale Support Office, Vincent echoes this view:

"Culture is also implied in modes, codes, networks, concepts, images and representations." "Culture provides a way to take hold of reality, and to tame it somehow." (Vincent, 1993, p. 64)

Given the importance of metaphor and culture-based images and modes of expression, particularly in native cultures whose communication and knowledge systems rely heavily on oral tradition, the Great Whale review panels had ample reason to be receptive to alternative patterns of expression.

The overall question is whether or not the scoping process was receptive to different patterns or modes of expression on the part of intervenors. Were all intervenors able to be understood and was their input duly considered for incorporation into the guidelines? In judging what constituted relevant input, did the panels favour or de-value certain patterns of expression? Were guideline-specific interventions more likely to be acknowledged? On the surface, this would seem likely, since standard frameworks used in EA, based on science and valued ecosystem components, favour the scientific study of quantitative ecological data and to a lesser extent social and cultural values. In case where the panels were unable to use input, did the input tend to be derived from certain patterns of expression more than others? An assumption is made here that linguistic barriers were for the most part overcome through translation, ensuring the possibility of all interventions being at least "heard" in the process.

Other case studies are notable in terms of lessons and principles. The Berger Inquiry featured funding of community groups to prepare and present submissions, thus promoting a more accessible process (Gagnon et al, 1993, p. 249). The Great Whale scoping process featured a similar step the hiring of community representatives to prepare intervenors in advance of the hearings; the resources applied to this would likely have been G

increased prior to the full hearings concerning the EIS. With respect to the BEARP case, Sadler notes different perceptions regarding the receptiveness of that process. A key contention of some BEARP critics (e.g. MacLachlan, quoted in Sadler, 1990) is that native people were not listened to well enough (Sadler p. 30). In his own analysis, however, Sadler refutes this convincingly:

"The Beaufort Sea EA Panel set new standards of responsiveness in terms of laying the groundwork for participation by northern residents and in the number and extent of public meetings held in or for local communities. It employed a greater range of procedures to encourage informed interventions than any previous panel. The proponents and the initiator also deserve credit for the efforts they expended to that end. As a result, the EA panel process moved beyond the conventional public meeting as a single reflex approach to consultation. This was not only a positive achievement in its own right; it indicates the way to a more responsive and imaginative design of participatory activities." (Sadler, 1990 p. 62)

While it is unfair to compare a scoping process to a multi-year EA process, it is instructive to note the innovativeness of the BEARP panel and to examine the Great Whale case in this light.

With respect to BAPE, Parenteau notes that in that process it is common for a panel to let speakers speak about any subject they wish to, i.e.: "the elements and features of the environment likely to be affected by the project" (Parenteau, 1988, p. 31). This is a very broad category; in Great Whale the monologues and life stories can be seen as fitting into this category. With regard to the guideline specificity of interventions, Parenteau distinguishes between "objective" and "subjective" presentations (p. 31). This distinction is similar to those made earlier in this thesis between "literal" and "non-literal", and guideline-specific vs. non guideline-specific input. Parenteau, it should be noted, was not discussing a northern or native context in analyzing BAPE. It is clear, however, that concerns regarding accessibility to various patterns of expression are common to many analyses of EA processes.

## Evidence of receptiveness to multiple patterns of expression

The focus of the analysis in addressing the above-mentioned questions is on the scoping hearings. The scoping transcripts are therefore primary data since they record all interventions made in the process. Participant observation at many of the hearings and an exhaustive reading of the transcripts confirms that the EA panels were indeed prepared to listen to all intervernors, regardless of the form of the intervention. The transcripts reflect a range of participation styles and are replete with both "guidelinespecific" and "metaphorical" interventions. The panels often reminded audiences that interventions must be "on topic", but frequently indulged intervenors whose comments related only indirectly to the project and its impacts. Although many intervenors were "cut off" when they surpassed their allotted time of approximately 15 minutes, the panels were generally lenient in enforcing the rule, particularly in the northern hearings. There was a strong desire among the review bodies to hear intervenors in their own words and to provide as much opportunity as possible for all who wished to be heard. Ample but not limitless time was accorded to informal interventions; in fact, to indulge them much further would have been impossible in a structured process. Finally, those intervenors who were not able to express themselves fully were invited to submit written comments. Despite all these efforts, however, not all participants and stakeholders were satisfied with the opportunities.

The opportunities for intervenors were reasonable but only in the context of the constraints facing the EA panels. Some stakeholders found the hearings process rushed. The panels spent on average three days in communities in official hearings. Every community hearing, whether in Montreal, Val D'Or, or Kuujjuarapik, for example, was characterized by a sense of "truncatedness" or "unfinishedness". This is an inevitable outcome since no formal hearing process operating within time constraints could possibly satisfy all potential intervenors - particularly when it generates the high level of public interest that the Great Whale Project did. Given this inherent limitation, three questions arise: is EA the appropriate process to use in the first place for a problem of this kind; did the panels make a reasonable effort given their constraints; and to what extent did the quality of the process compensate for its lack of quantity? The judgment made here is that the panels made reasonable efforts given their operating constraints. The more fundamental question of the quality of the process is addressed below in this and other evaluative sections. The even more fundamental question - whether or not EA is the appropriate process - is addressed in the concluding section of this thesis.

The overall pattern was for native intervenors in the northern community hearings to make interventions that were relatively non-guideline specific. Elders were more likely to do so than younger intervenors. Although this was the overall pattern, there were many divergences. Many interventions by native stakeholders were guideline-specific - for example, Chief Robbie Dick, a Cree leader, provided input that could fit easily into a valued ecosystem component framework (Robbie Dick, Kuujjuaraapik/Whapmagoostui, March 10, Vol. 10, p. 7). Makivik officials and negotiators were more likely to make political than abstract presentations, with fewer stories and more explicit demands of the process.

Certain hearings featured predominantly non-guideline specific input - for example the evening session in Chisasibi on March 5 was almost entirely so. In this particular hearing, Mr. Thomas Jolly made an intervention that was essentially a life story, with vivid memories recounted of particular incidents in his life. To intervenors like Mr. Jolly, these memories were highly relevant and significant to the EA process. In the same hearing, Mrs. Margaret Fireman provided a detailed description of Cree rituals and said: "In order to understand us you have to know that we speak from the heart." (p. 67, March 5, Chisasibi, Vol. 4) Mrs. Margaret Cromarty read a poem in Chisasibi that was well-received. Chief Violet Pachanos argued that personal stories should be reflected in guidelines:

"Vous allez entendre aussi des expériences personnelles et il me semble que ce sont des préoccupations que vous devez traiter, qui doivent être mentionnées dans votre rapport, sur la proposition de centrale à Grande Baleine." (Chief Violet Pachanos, Chisasibi, March 4, p. 39, Vol 1)

There were many non-guideline specific interventions in the Montreal hearings, and these were well-received by the panel, although a more

formal atmosphere prevailed. And while it may have been expected that written submissions would tend to be guideline-specific, many were in fact philosophical or political statements. Overall, it is estimated that no more than one-third of all interventions were guideline-specific. The proportion is lower, perhaps one-quarter at most, if "guideline-specific" input is taken to mean input that required no interpretation, reduction or synthesis. The most guideline specific input tended to come from a few sources: Makivik Corporation, the Grand Council of the Crees, and interest groups. These patterns are similar to those of the BEARP process, where two-thirds of interventions "were in the form of statements of concern", one-quarter "identified areas where additional information was required"; two-thirds "were not guideline-specific" and one-quarter were "guideline-specific" (Sadler p. 37). Finally, Sadler noted that in BEARP individuals tended to be more concerned with substantive issues, while native and environmental groups more with process (Sadler p. 37). This is broadly consistent with the Great Whale case, although, as noted above, groups tended to make submissions addressing both substance and process. BEARP's greater focus on process is understandable given the relative novelty of EA at the time.

#### Discussion of themes and metaphors

As discussed earlier, interventions that were not guideline-specific tended to contain recurring culture-based themes and metaphors. While it is beyond the scope of this thesis to conduct an anthropological study of their significance, a more general descriptive analysis was undertaken. The transcripts were read in their entirety and relevant thematic/metaphorical input were identified subjectively and grouped into a list. Broadly speaking, the themes and metaphors centered around social and cultural continuity and harmony; the disruptive influence of rapid change; contrasts between native and non-native values; and connection to the land and traditional lifestyle. The themes and metaphors are categorized as "predominant themes", which were heard in several separate interventions; "other themes", which were relatively uncommon; "major metaphors", which were recurring; and "other metaphors" which were isolated instances. In Appendix F, the themes and metaphors are listed with selective explanatory notes, and selective comments with respect to



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how they were, or might have been addressed in the EIS guidelines. The ratings derived from this analysis are summarized below in Table VI (p. 183).



## Table VI: Support for thematic and metaphorical input in EIS Guidelines

- 0 = not reflected in guidelines
- = reflected in guidelines
- •• = addressed explicitly in guidelines
- •••= emphasized in guidelines

## **Predominant themes**

1. The food we eat. (••) 2. Country food vs. store-bought. (•••) 3. Living off the land. Hunting/fishing/trapping lifestyle. (•••) 4. Self-reliance achieved through traditional lifestyle. (••) 5. Irreplaceable values. (•) 6. Options for future generations compromised. (••) 7. Abundance of wildlife; pattern of decline. (••) 8. Stewardship/respect for nature. (•) 9. Connection to land. (••) 10. Traditional knowledge of land/environment. (••) 11. Conservation. (•) 12. Rapid social change. (•••) 13. Social and cultural continuity threatened. (•••) 14. Cultural survival. (•) 15. Quallunat. (•) 16. Loss. (•) 17. Community. (••) 18. Time immemorial. (•) 19. Marginalization of native concerns. (••) 20. Living in two cultures. (•••) 21. The river. (•) 22. Being able to drink river water. (0) 23. Flooding/drowning graves/culture/wildlife. (••) 24. If wildlife could speak.... (0) Other themes 25. The white man's poison. (•)

- 26. Spiritual well-being. (••)
- 27. The environment is human. (•)



- 28. Fear of an uncertain future. (•••)
- 29. Loss of freedom on the land. (•••)
- 30. Disrupted ecological cycles. (••)
- 31. Young people confused, lost as a result of development. (••)
- 32. Need for sustainable development. (•••)
- 33. The physical environment of James Bay is fragile. (••)
- 34. Smaller scale development is more appropriate. (0)
- 35. The land is a good provider. (•)
- 36. The desirability of a lifestyle based on subsistence. (••)
- 37. Dislocation/negative impacts of moving, relocating. (••)
- 38. Inadequacy of maps in depicting land, life, issues, reality. (•)
- 39. The environmental assessment process is of limited use and relevance. (•)
- 40. Holism; human/ecological interconnections. (••)
- 41. Dogs and dog teams. (0)
- 42. The taste of wild meat is changing. (•)
- 43. Cooperation between Inuit and Crees. (•)
- 44. "Our sea life". (•)
- 45. Peace/tranquillity/serenity of life prior to development. (•)
- 46. Living in a "natural" vs. "unnatural" environment. (•)
- 47. Cultural heritage. (•)
- 48. Land and spirituality. (••)
- 49. Cree rituals, ceremonies based on nature. (•)
- 50. Cree "natural knowledge". (•)
- 51. Sense of uniqueness of place. (•)
- 52. Humans in the food chain. (••)

## Major metaphors

- 53. Mother Earth. (•)
- 54. The garden. (•)
- 55. The Creator. (•)

## Other metaphors

- 56. Native land is a "natural farm". (•)
- 57. The dam is death. (0)
- 58. James Bay is like the rain forest. (0)
- 59. The four walls closing in on Cree culture. (0)

## Conclusion: receptiveness to multiple patterns of expression

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As evidenced by the long list of thematic and metaphorical input, the panels listened to considerable non-guideline specific input. At this level, the process was quite receptive to different modes or patterns of expression. As discussed above, Sadler noted that two-thirds of the input in BEARP was not guideline-specific, indicating that this is an inherent challenge of EA in northern communities.

The ratings in Table VI are indicative of the panel's inclination and/or ability to address and incorporate non-guideline-specific input. Of the 59 themes and metaphors discussed, 8 were emphasized in the guidelines; 18 were addressed explicitly; 26 were reflected; and 7 were not reflected. In general, this demonstrates the willingness of the panels to respond to the concerns of stakeholders who expressed their input through modes of expression other than rational, scientific discourse. The panels paid attention to metaphor and symbols, and were to some extent literate in the oral and visual languages of native intervenors. The fact that not all of the input was recognized in the guidelines does not in and of itself imply nonreceptiveness. Much of the non-thematic and non-metaphorical input received in the process was filtered out of the guidelines as well. The panels' task in creating the guidelines was necessarily selective and synthetic.

The panels were, however, at times arbitrary in choosing whether to reflect, address or emphasize the thematic and metaphorical input. Their judgment was probably correct in filtering out input such as "The four walls closing in on Cree culture" (#59); and "James Bay is like the rain forest" (#58). These metaphors are idiosyncratic and not representative of any broader sentiment in the scoping process. The panels were not attentive enough to some other themes, however - "Dogs and dog teams" (#41) was the subject of more than one compelling presentation by elders and could have been incorporated as an example attached to a guideline concerning the protection of traditional lifestyles, or native/non-native relations.

Likewise, some of the input that was merely reflected in the guidelines likely merited explicit attention. Correspondingly, cases can be made that some of the input that was addressed explicitly probably should have been emphasized more. An example that stands out is #4 (Self-reliance through traditional lifestyle) - although the latter concept was emphasized, selfreliance, arguably a key concept, was not. Another key theme (#16, Loss) was not addressed sufficiently, event though it captured the mood of several interventions and could be taken as a barometer of feelings about change and large scale development. In some cases an intervention is recognized, but its thrust is compromised or lost. On the whole, however, these cases are relatively rare. Given the challenges they faced, the panels performed the art of synthesis quite well. Some of the themes and metaphors were vague or redundant, and were understandably filtered out.

Significantly, the guideline-specific input was not valued more than the thematic or metaphorical input. The panels demonstrated that they were prepared to receive different forms of interventions within a certain set of rules and procedures. They considered input even if it appeared to be off topic initially. As Sadler points out, this occurred in BEARP as well, when "local concerns" and "community-based interventions" were perceived by some as peripheral and conducive to "blind alley discussions" (Sadler, 1990, pp. 42-43). A key difference between the cases is that in Great Whale scoping hearings there was no opportunity to channel discussions, whereas BEARP's double hearings format was helpful in this regard. Had the Great Whale process continued, this may have been done as well.

The Great Whale panels could have enhanced their receptiveness to nonguideline-specific input by being more proactive. In her monograph commissioned by the Support Office, Vincent argues that the "third party should take time, make itself aware of the public, and its ways of expressing itself" (Vincent p. 6). Sadler echoes this:

"Openness is a necessary, but not sufficient, prerequisite for achieving successful participation. The conduct of hearings to encourage participation, on occasion, requires more affirmative action to accommodate procedures to participants, rather than vice-versa. At the same time, this course of action must be consistent with basic standards of fairness." (Sadler, 1990, p. 42)

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The panels' record is mixed in this regard; although their membership assured a certain level of receptiveness, some of the members less familiar and experienced with native/northern EA hearings could have benefited from Vincent's advice. Vincent continues:

"In order for consultation to occur, each partner must have acquired knowledge beforehand on the social and cultural rules which govern the other partner's modes of expression and decision-making." (Vincent, 1994, p. 57).

Again, the record of the panels is mixed; the somewhat rushed nature of the scoping process meant that proactive upstream measures such as this were not fully taken. As an example, consultation of focus groups prior to the hearings might have helped the panels by preparing them in terms of what to expect and gauge the probable patterns of expression.

On the other hand, intervenor funding was an important tool used to prepare native intervenors and the Cree and Inuit received the lion's share of intervenor funding. Finally, it must be noted that a significant barrier to proactive consultation was posed by the Cree opposition to the project and their relatively late acceptance of the EA process.

# **4.3.4** Summary of the two analyses: receptiveness to TEK and patterns of expression

The Great Whale scoping process advanced somewhat the practice of integrating TEK into EA. The experience of the scoping process supports the need for a better way to gather and inject TEK. Project-specific EA processes, as discussed, are inherently limited in this regard.

The Great Whale scoping process was not completely porous, but impressive efforts were made to be receptive to multiple patterns of expression. The characteristic bluntness of EA was to some extent overcome through attention to alternatives languages and artful synthesis



in preparing the guidelines. Within limits discussed in the next section, the guidelines are a worthy account of the values implied and elaborated by the native intervenors, who were listened to and understood.

Accepting TEK, along with metaphorical input, expands problem definitions and thus enlarges the scope of review by giving validity to integrative themes such as "food". The idea of EA as a purely scientific process is challenged through their acceptance, making the process more explicitly a value-laden one based on personal and collective knowledge and values. Thematic and metaphorical input provides a potentially powerful unifying tool for bridging gaps in understanding in intercultural EA, and in unlocking potentialities in diverse knowledge systems.

Finally, in some cases, while the panels were receptive to TEK and nonguideline-specific input, they were at times at a loss to interpret it. The interpretive capacity of the panels, an important element in intercultural EA in support of viable interdependence, is discussed next in section 4.4.

## 4.4 INTERPRETIVE CAPACITY/FUNCTION

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In this section the scoping process is analyzed with respect to the criterion of "interpretive capacity/function". In the theoretical base, the criterion is defined and its challenge is elaborated, with particular focus on the problem of processing "non-guideline-specific" input in scoping. The analysis begins with a discussion of panel and support staff preparedness to interpret scoping input and then addresses the procedures used to synthesize the input into EIS guidelines. The guidelines themselves are then analyzed in terms of how well the non-specific input was interpreted. The analysis concludes by addressing the inherent limitations of the interpretive capacity in scoping.

## 4.4.1 Theoretical base of analysis

The analysis undertaken in section 4.3 demonstrated that the Great Whale scoping process was receptive to TEK and multiple patterns of expression, but raised the question of the ability of the panels to interpret this input. As argued previously, the responsiveness of the guidelines depends largely on the quality of the interpretive function. In facing this challenge, the panels were assisted by their support staff. The EIS guidelines are primary evidence in assessing their interpretive capacity. A comparative analysis of the hearings transcripts and guidelines serves as the principal analytical tool for this section.

The intercultural interpretive function in EA in not well understood, and has not been the subject of any comprehensive study to date. The issue has been noted by authors but not addressed specifically. As Vincent points out in her discussion of intercultural consultation in EA:

"Little thought has been given, however, to the cultural distance of the public consulted."; "...little consideration has been given to the importance of communication, beyond the acknowledgment of language and certain elements of material culture." (Vincent, 1994, p. 70)

Webster's dictionary defines interpreting as: "explaining or telling the meaning of; presenting in understandable terms". In the scoping process, the panels therefore had to first understand what was communicated, and then have the ability to explain it.

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As argued previously, a syndrome of "non-responsiveness" can characterize EA processes in which consultation and communication are inadequate. A characteristic weak link in the chain of communication occurs from the issuance of guidelines to development of the EIS; proponents have often prepared impact statements that do not respond to the intent or the content of guidelines. A precondition for a responsive EIS, however, is the responsiveness of the guidelines to the input of the scoping process. In some EA processes panels have opted for the "shopping list" approach, in which a relatively encyclopedic list of study criteria is given to the proponent, resulting in an impossible task. Sadler, for example, notes that this was done in the BEARP process (Sadler, 1990, p. 46). Not only is the shopping list approach unfocused; it is also unfriendly to nonguideline-specific input. By trying to include all input from the scoping process, panels nonetheless may favour input that can be reduced to a list. The value of careful consultation performed in a scoping process can thus be diminished if receptiveness is not followed by skillful interpretation.

Once again, the BEARP case is instructive. Sadler notes that not all respondents felt that public input was adequately reflected in the guidelines Paradoxically, however, others felt the opposite:

"The principal reservation about the EIS guidelines phases held by workshop participants was that the exercise succeeded in adding concerns rather than eliminating them." (Sadler, 1990, p. 38)

In the end, the BEARP panel opted for conventional guidelines, which worked against an accessible and meaningful EIS. The EIS ended up being encyclopedic and descriptive but not analytical enough. (Sadler, 1990, p. 38). In a sense, despite its unprecedented ambition and scope, BEARP ended up perpetuating to some extent the syndrome of non-responsiveness in EA. MacLachlan, in her analysis, concludes that the BEARP panel failed to grasp and interpret the complexities of the development dilemma faced by northern people (CARC, 1984).

It is tempting for EA panels to submit guidelines that are pre-conceived and present a more or less standard framework for biophysical/social EA, while filtering or funneling specific concerns heard in the scoping process. In order to go beyond this, EA panels must be committed to responsiveness, and must be organized accordingly:

"The nature of the process, first of all, places heavy demands upon the organizing skills and synthesizing abilities of EA panels. It involves analyzing and weighing a complex mass of evidence; part fact, part value, and much of it strongly contested." (Sadler, 1990 p. 10).

Even before this synthesis, however, the panels have to be able to make sense of a mass of non-guideline-specific input received in the hearings.

## 4.4.2 Analysis of interpretive capacity

The principal question addressed in this section is to what extent the EIS guidelines reflect the scoping input. Was the integrity of the non-guideline-specific interventions preserved? More specifically, the interpretive capacity of the panels is addressed. A number of related questions are explored.

## Panel preparedness to interpret scoping input

First, it is important to examine whether or not interpretive abilities were built into the panels, and whether or not this aspect was given any consideration in advance of the scoping process. If this capacity was not deliberately and consciously built in to panels, it was addressed to some extent by their mixed membership. There is little evidence that the interpretive challenge given extensive consideration. It may have been assumed that the translators would address the challenge, with the assumption made that linguistic, rather than cultural differences were the main barrier to intercultural understanding. In order to probe this question in detail, it would be necessary to go considerably upstream of the Great

Whale review - back to the initial creation of the individual panels. Federal EARP panels do not have long-term membership - a new panel is created for each review. It can be surmised that native panelists were chosen partly on the basis of their ability to understand, represent and interpret the concerns of stakeholders from their constituencies. Even is this were the case, however, their interpretive capacities would be only one of several considerations, and by no means the overriding one. The Kativik Environmental Quality Commission, for its part, pre-existed the Great Whale review by a decade, and its mixed membership was a provision negotiated in the James Bay and Northern Quebec Agreement to ensure balanced representation in panel decision-making (Mulvihill & Keith, 1989). The interpretive capacities of panelists were likely a low priority consideration of the designers of the KEQC, if they were considered at all. At the time of the creation of the JBNQA, EA was generally perceived as a scientific and political exercise. As Vincent has pointed out, little attention was accorded to intercultural challenges with respect to interpreting stakeholder input. On the whole, an interpretive capacity was not consciously built into the panels.

Despite the lack of explicit advance planning for an interpretive capacity, a skilled and adaptive panel could conceivably acquire and use this skill during the course of the scoping process. Vincent refers to this as:

"....knowledge which must be acquired by the review commissions to be able to decode and translate the messages transmitted by the public....". (Vincent p. 68)

Although Vincent does not elaborate on the specific kind of knowledge required, it refers to an interpretive capacity based on intercultural literacy. The rushed nature of the Great Whale EA process, which focused on legal and political battles prior to the commencement of the formal process, left little time for pre-hearing learning. The panelists did not therefore take time to acquire the knowledge referred to by Vincent. While the considerable experience of some panelists and chairmen in northern/native EA hearings compensated for this to a great extent, the task was on-the-job learning for other panelists. A skilled, knowledgeable

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and experienced chair or panelist might be receptive to nuances in the hearings, but others might not be. In practice, the less experienced panelists tended to rely heavily on their more seasoned colleagues. Had the advice of Vincent been taken literally, however, some form of pre-hearing mutual learning sessions might have taken place to prepare intervenors, proactively reduce confusion, and minimize other communication barriers. This sort of initiative would undoubtedly have had value both for panels and intervenors.

If it was assumed that the professional translators would perform the job of interpretation, it became evident in the scoping process that their role was mainly limited to literal translation. The panels, however, had a broader role and occasionally performed on-the-spot translation, mediation and interpretation themselves. This was evident in the comments of one chairman:

"Un des aspects les plus importants de ces audiences c'est que nous servons de liaison, si vous voulez, entre les gens qui expriment leurs préoccupations et certaines de ces choses qui sont à l'intérieur de notre mandat, sont comprises par notre mandat, et d'autres pas. Nous pouvons quand même exprimer ces préoccupations au nom de ceux qui sont intervenus et vraiment de parler aux gens dont c'est réellement le mandat. Donc, je crois que nous pouvons essayer non seulement d'entendre mais de véhiculer, de communiquer notre message, et je vous en remercie." (Peter Jacobs, Montreal, March 20, Vol. 8, pp. 19-20)

## Interpretive role of support staff

The Great Whale Support Office played an important role in the process of synthesizing the input of the scoping hearings. Similarly, in the BEARP process, a group of technical specialists were employed to analyze oral and written input:

"The strength of this group lay in its capability to clarify scientific issues and make them transparent to the interests of the public" (Sadler p. 45).

In the case of Great Whale, the support staff included a good mix of technical specialists and generalists; as well as social and biophysical



assessment experts. The Great Whale EIS guidelines development process was also aided by the considerable experience, resources and expertise of the two primary native organizations: Makivik Corporation and the Grand Council of the Crees. As described in section 4.3, Makivik did some interpretation of its own, and submitted a document entitled "Summary of Concerns of Inuit Intervenors", in which Inuit concerns were organized into themes - e.g. "Way of Life"; "Culture and Traditional Life"; "Inuit's Love for the Earth". This list of themes reflects interpretation and synthesis by Makivik, and was valuable to the panels.

## Systematic analysis and interpretation of public input

The Great Whale support office developed an internal system for analyzing the inputs for formulation into EIS guidelines, so that the panels had an organized body of data at their disposal. This systematic approach to handling and storing information was also taken from an Inuit perspective by Makivik. In both cases the hearings transcripts were a common base document. The Support Office's base was expanded through receipt of numerous written submissions, some of them analytical themselves. Departing with these tools, the panels and Support Office developed guidelines through a process that was only partly transparent to the public. This process was necessarily selective, since a vast body of input had to be synthesized into relatively brief guidelines.

The panels, assisted by their support staff, experimented with guidelines development systems, but appeared to have pre-conceived ideas about the eventual product. At least two panels had pre-existing draft guidelines to use as frameworks and harmonize if possible. These frameworks were supplemented, and to some extent transformed, on the basis of oral and written input. The selective choice of which input to include was a different task depending on whether it was guideline-specific or not. In cases where the input was guideline-ready, the panels made choices on the basis of relevance and appropriateness, in the context of contemporary standards for EA. While this task was time-consuming, it was much more straightforward in a conceptual sense than was the analysis and selection of the non-guideline-specific input.

## Interpreting non-guideline specific input

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The nature of the non-guideline-specific input was discussed in section 4.3. Some of this input could be re-interpreted into EIS study criteria; some could not, and some fell in-between. The panels identified several ways of addressing this input: they could formulate specific guidelines where possible; they could address specific concerns by way of general requirements; they could require the proponent to conduct more or better consultation in order to clarify unclear concerns; or they could develop an innovative EIS framework. In practice, the panels took all of these approaches. In some cases, stories were turned into technical criteria or valued ecosystem components; in other cases an essential message was derived from a story and included as a criterion or principle. An intervenor's story might be given greater consideration if it reflected recurring concerns and values. The transformation of stories into technical criteria is a reductionist exercise in which some of the story is inevitably lost. On the other hand, this exercise results in studiable and actionable criteria for the proponent.

The list of studiable criteria would have been quite standard had it not been placed in a larger framework. The framework includes the list of valued ecosystem components, which are derived partly through interpretive reference to scoping input; principles for intercultural EA and consultation; and principal assessment criteria, which inform the proponent as to the main bases upon which the EIS will be judged. The guidelines strongly reflect a view of EA as an essentially social rather than technical exercise. The guidelines are non-encyclopedic, interpretive and as diverse in their approach as was the input heard in the scoping hearings.

## Interpretive parts of the EIS guidelines

Table VII (p. 196) identifies specific guidelines which demonstrate support for the process-oriented criteria presented in the conceptual framework of this thesis, including "Interpretive Capacity" (N).



# Table VII - Support in EIS Guidelines for substantive and process-oriented criteria (interpretive capacity)

(•=some support ••=substantial support •••=strong support

Guideline	Substantive criteria	General process criteria	Specific process criteria	Comments
126. Local knowledge; conceptual and symbolic systems	A••	F••• I•• J•• K•	M••• N•• O• P•••	An explicit recognition of the intercultural challenge of EA.
141. Translation of EIS; accessibility of EIS format		G••	N•	Proactive measure to enhance mutual understanding.
302. Guiding principles for describing environment	A•	F•• G•••	M• N• O• P•••	Addresses intercultural aspect; valued ecosystem components; human- ecological interface.
304. Multicultural definition of environment	A••	F••• G••• I•• J••	M••• N••	Very strong and explicit requirement for intercultural approach to EA.
305. Valued ecosystem components		I•• J••	M• N• O• P•••	Reformulation of problem to recognize cultural diversity.
306. Components valued by each community		F••• H•• J•	M••• N• O••	Explicit requirement to value input of each culture separately.
380. Land use		J∙ K∙	N• P••	Alternatives identified by natives to be considered.
385. Community perceptions of project	A• C•	F••	N•• P••	Proponent required to integrate multiple perspectives.
511. Cultural aspects of diet		J••	M•• N••• P••	Proponent given specific guidance, in intercultural terms.
512. Mercury contamination			N•	Perceptions of native communities emphasized.
518. Stress and quality of life			N∙ P∙	Feelings of alienation or belonging linked to health.
520. Free movement within the territory			N•	Perceptions are emphasized. Interventions made in scoping were interpreted for this element.



557. Social cohesion			N•• P••	Requirement a composite of various interventions made in hearings.
559. Social organization		J••	N••• P••	A highly interpretive section, capturing concerns implied by intervenors.
561. Opening of the region			N• P•••	Very specific list of social impact concerns, amounting to a problem statement.
565. Job creation; native attitudes toward			N•• P••	Complex problems related to job creation are recognized.
567. Respect for culture	A••• C•••	F•••	M••• N••• O• P•••	A key integrative section, with pluralism emphasized strongly. A synthesis of native concerns.
608. Mitigative measures	A••	F••	N••	Requirement to review L a Grande experience, after intervenors expressed dissatisfaction with mitigation.
613. Access to land & resources			N••	"Free movement" on land a value expressed in hearings.
620. Education programs regarding project, impacts			N•• P•	Responsive to lack of knowledge in communities about project, impacts.

Taken in its entirety, Table VII suggests substantial input for the processoriented criteria of "interpretive capacity". These guidelines reflect the range of approaches taken by the panels to interpret the non-guidelinespecific input. Three guidelines taken from Table VII serve as examples of the interpretive capacity of the panels. Guideline # 511 (Cultural aspects of diet) reflects the concerns of various intervenors in the scoping process, and captures the essence of the issue - it is a good synthesis:

"Finally, the Proponent shall examine the effects of the proposed project on cultural aspects of diet: the difficulty or ease with which dietary customs can be modified; social ties created by activities involving the production and consumption of food; spiritual, dietary, or other values accorded to certain edible species of animals and plants; and all other relevant considerations." (Guidelines, p. 65)



In the case of guidelines #520 (Free movement within the territory) and 559 (Social organization), the perceptions of intervenors as told through their stories are emphasized, requiring interpretation by the panels. Guideline #559, in particular, is a highly interpretive section, capturing concerns implied but not necessarily stated by intervenors. Finally, guideline #565, which addresses native attitudes toward job creation, would likely have been included even if intervenors had not raised the issue. The wording of the guideline, however, was enhanced through the selective interpretation of input.

#### Inherent limitations of interpretive capacity

The interpretation performed was thus selective rather than exhaustive the objective of the panels was to create guidelines that represented the input derived. Although the interpretation was in many cases very skillful, some of the power of the oral testimony was inevitably lost in the interpretive process. The oral testimony of some intervenors conveyed a strong sense of urgency, a deep connection to the land, and a relationship to the environment that is difficult to comprehend from a Euro-Canadian cultural perspective. This sense of urgency conveyed in the hearings was not transferred completely to the guidelines; indeed, it could not have been because the only way to fully appreciate it was to witness it in person (which representatives of the proponent did.) Intervenors revealed intimate knowledge of particular valued ecosystem components, often in ways that defied ready re-interpretation into guidelines. Even the term "ecosystem", despite its holistic and integrative intent, is a western scientific construct within which the concerns of native intervenors cannot fit seamlessly.

The inevitable loss of some of the power of oral testimony is an inherent limitation of scoping and EA. Although it can be flexible, EA nevertheless tends to be a dispassionate, quasi-scientific exercise. Quite apart from this limitation, the question of the appropriateness of EA arises once again. The urgency conveyed in the scoping hearings had less to do with the EA process itself than the upstream decision of the proponent to propose the project, and the government policy that supported it. In other words, intervenors who would prefer to direct their concerns elsewhere have to settle for the only formal forum at their disposal - the EA process. Some of the input of the scoping process is therefore difficult if not impossible to reinterpret into guidelines since it was directed upstream of the process. This input is not exactly lost, since it surrounds the formal process and defines the informal process.

#### 4.4.3 Summary

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As discussed throughout this section, the panels and support staff were energetic, innovative and versatile in interpreting scoping input. The panels could have been more proactive at the front end of the scoping process by arranging better pre-consultation preparation of intervenors. A better prepared public would have provided more relevant and focused input to the process. Given the nature of intercultural scoping, however, the panels would still have had a challenging interpretive task at the end of the hearings. Here, at the guidelines preparation stage, they were very effective, and did justice to the input of diverse intervenors. In the next section, the focus of analysis shifts to a new aspect - the ability of the panels to transcend some of the characteristic problems of intercultural EA by facilitating a dialogue amongst competing paradigms.

#### 4.5 FACILITATES INTER-PARADIGMATIC DIALOGUE

In this section the criterion "facilitates inter-paradigmatic dialogue" is addressed, beginning with a theoretical base in which the phenomenon of paradigmatic tension in EA and scoping is discussed. The theoretical base proceeds with a discussion of the prospect of mutual learning across conflicting paradigms, and an analytical model by Judge (1991) is introduced. The analysis begins with a description of the paradigmatic tensions that prevailed in the scoping hearings, and proceeds, with the use of Judge's model, to assess the evidence of interparadigmatic dialogue. The efforts of the panel to facilitate a dialogue are assessed. The EIS guidelines are analyzed next with respect to whether or not they are reflective of more than one paradigm. The section concludes with a discussion of alternatives within a scoping process that might promote interparadigmatic dialogue.

#### 4.5.1 Theoretical base of analysis

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The analysis in section 4.3 established that the scoping process was receptive to multiple knowledge systems and patterns of expression. The present section addresses the quality of the dialogue and mutual learning in the process. More specifically, the central question is whether or not the dialogue (assuming one took place) was of an interparadigmatic nature. A related question is whether or not mutual learning take place - did one group's understanding of another group's paradigm increase as a result of the process? Ultimately, did competing paradigms become more integrated? The focus of analysis is the scoping hearings. The scoping transcripts are the primary data source, and the EIS guidelines are secondary.

#### Paradigmatic tensions in intercultural EA

Paradigmatic tensions or cleavages are common in intercultural EA. As argued in Chapter 2, the north-south development interface in Canada has frequently been characterized by a collision of world views. These development philosophies sometimes appear to be irreconcilable. The goal or process of viable interdependence - economies and cultures coexisting - would require at least a partial reconciliation of paradigms. To the extent that this is possible, it will require extensive dialogue and increased mutual understanding among the opposing parties. In an EA process in support of viable interdependence, therefore, dialogue and learning must be central, not secondary functions.

As argued previously, while EA processes may have been designed with a conflict resolution function in mind, they have typically failed to bridge cultures and paradigms. As Vincent notes, the EA process brings with it several elements, all derived from or framed within a non-native, non-northern paradigm:

"Hearings, public consultation, the proposed hydroelectric project, and the environmental assessment review process, are all elements of reality which individuals must be able to apprehend." (Vincent, 1994, p. 64).

Thus, from the outset of the scoping process, at least two distinct paradigms are contrasted. The paradigms are largely culture-based. While neither the southern population nor the northern residents feature single, monolithic paradigms (there are many divisions within each); and while there is some overlap between north and south, the Great Whale hearings, as discussed below, were characterized by two paradigms in particular.

#### Mutual learning across paradigms in EA

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The objective of mutual learning is often taken for granted in EA processes, although it is not always achieved - Gariépy, for example, noted that little mutual learning took place in the processes he analyzed (Gariépy, 1991). Vincent argues that mutual understanding is both a pre-requisite and a goal of public consultation. In the case of Great Whale, however, there was relatively little mutual understanding between the parties at the outset of the process, thus creating pressure for mutual learning in the scoping hearings. While scoping is an early step in a long EA process that would normally provide learning opportunities throughout, it is an important initial step in which a dialogue can be established. The ideal, as argued previously, is for the scoping process to approximate an agora, in which upstream debate takes place; in which intercultural and ecological literacy



increases; and in which the rationality ritual is transcended, thus leading to creative conflict resolution and more viable interdependence.

#### Judge's model of interparadigmatic dialogue

Judge (1991) proposes an interesting model, essentially arguing that the prospects of creativity, integration, insight and value emergence increase as dialogue proceeds from "intra" to "cross" to "inter" and ultimately to "meta" paradigmatic modes. (Table VIII on p. 202) Judge's model is more complex than is discussed here, but it will suffice for the present purposes of analysis to apply some of his higher-level theory by posing certain questions. The objective in doing so is to determine the overall character of the dialogue in the scoping process - whether it remained entrenched in an intra or cross-paradigmatic mode, or indeed whether it ventured into the inter or even cross-paradigmatic modes. If the latter is the case it can be argued that the scoping process was creative, inventive, conducive to mutual learning and problem reformulation, and therefore more likely to support viable interdependence. The antithesis would be an adversarial "non-dialogue" in which one paradigm would inevitably prevail over another, thus implying little or no progress toward more viable interdependence.

## Table VIII: Decision-making arenas, styles and characteristics (adapted from Judge, 1991)

Judge's framework is adapted below in simplified form. The salient aspects of each of the decision-making arenas are listed.

#### • Intra-paradigmatic

- single value
- relatively stable
- short-term technical concerns; technique/science
- conducive to adaptive decision-making
- Cross-paradigmatic
- adversarial

- relatively dynamic
- prevalence of unstated or secret constraints
- conducive to reactive decision-making



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- value development
- dynamically unstable
- inspiration and invention
- conducive to innovative decision-making
- Meta-paradigmatic
- holistic
- turbulent
- value emergence; atemporal concerns, insight
- conducive to transformative decision-making

Judge's model was designed to overcome conceptual constraints and unlock creativity in policy workshops concerned with sustainable development. He argues that discussions about sustainable development will prove to be merely adaptive and of limited significance - tinkering around the edges unless they are fed by insights into new forms of transformative decisionmaking. In the present analysis Judge's model is used as a descriptive/analytical framework to characterize the nature of the dialogue in the Great Whale scoping hearings. Generally speaking, the desired outcome is for the dialogue to progress beyond the "intra" and "crossparadigmatic" modes and venture into the "inter" and perhaps even the "meta-paradigmatic" modes. In theory, "inter" or "meta-paradigmatic" dialogue in the Great Whale scoping hearings would enhance mutual learning and understanding; lead to value shifts; and lead to reconceptualization of problems. In practice, a time lag could be expected between a conflict resolution process and tangible results in terms of viable interdependence. Interparadigmatic dialogue in the Great Whale scoping process could nevertheless be taken as a pre-cursor of change.

Three key analytical questions are, therefore: whether or not the dialogue in the Great Whale scoping process ventured into the two higher paradigmatic levels; whether or there was evidence of integration of paradigms; and to what extent the panels facilitated interparadigmatic dialogue.

#### 4.5.2 Analysis: facilitation of inter-paradigmatic dialogue

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Predictably, the scoping hearings were characterized by tensions between paradigms, and in particular the articulation of two predominant visions. One paradigm can be described as southern, Euro-Canadian, and pro development, viewing the north as a resource hinterland. The competing paradigm, predominantly northern and native but with substantial support amongst southern environmentalists, viewed the north as a native homeland and sensitive ecological region in need of protection. Makivik Corporation, as will be discussed below, characterized the conflict generally as a tension between "native values" and "non-native values". While a more subtle and complex range of paradigms were articulated in the scoping hearings, it will suffice for the present analysis to compare these two predominant competing views. Paradigms, like cultures, are dynamic; it is therefore less a case of two immovable paradigms in conflict than two dynamic ones in dynamic interplay. Interventions representative of each paradigm appear in Appendix A. Several interventions that comment on the tension between the two predominant competing paradigms appear below.

First, a panelist commented on the gap between two competing paradigms:

"Et est-ce- qu'on parle de deux mondes complètement séparées qui vont tenir jusqu'à la fin des temps des discours opposés ou si, au contraire, je me trompe?" (Bernard Arcand, panelist, Montréal, March 18, evening, p. 77)

Another panelist noted the frequent distrust shown towards the Western scientific paradigm:

"....au cours des dernières semaines on a eu souvent l'occasion d'entendre des commentaires qui manifestaient une très grande méfiance à l'endroit de la science en général, à l'endroit de études faites par les ingénieurs, les sociologues ou quoi que ce soit....". (Benoit Taillon, panelist, Montreal, March 20, Vol. 8, p. 158)

In the course of the northern hearings, the chairman undertook to address this tension in the EIS guidelines:

"All I can say is that we are aware of the conflicts of values. We are aware of differences of culture. And we will go as deep as we can into those matters, and they will play a great part in the recommendations that we will make." (Paul Lacoste, Chairman, Kuujjuaraapik-Whapmagoostui, March 10, Vol. 8, pp. 53-54)

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Finally, a native leader commented on the cultural gap between north and south, native and non-native people:

"And I know it is hard for the white people to really understand what the Cree people are saying, especially when they talk about land use, and how the Cree people have depended on the land for their survival. It is the same for the Cree people. It is hard for us to understand some of the terminology that you use in your presentation. And we really have to find a way to adapt our language, our Cree language, to accommodate those new terminologies." (Robbie Dick, Cree leader, Kuujjuaraapik-Whapmagoostui, January 27, Vol 1, p. 34)

In a written submission to the panels, Makivik Corporation presented its own analysis of the paradigmatic tensions manifested in the scoping hearings. Makivik submits that the panels should require the proponent to address the problem of competing value systems in the EIS, and contributes valuable ideas in this regard that are reflected in the EIS guidelines:

"In practice, however, intervenors who do not share a proponent's values do not have the time, ability, or resources to produce alternative EIS's that re-analyze the predicted impacts according to another system of values and then apply those same values to every other element of the assessment process. The result is, of course, that the proponent's values and the proponent's EIS by default assume a disproportionate importance and exert undue influence over the decision-making process.

The practical difficulties of considering more than one set of values in an EIS should not be overestimated. In the case of the Project, however, we feel confident in saying that there are two major categories of values involved: Native and non-Native. Within the Native values, one can expect to find the sub-categories "Inuit values" and "Cree values", probably with considerable overlap between the two and modest variability within each one. Within the "non-Native values", one can expect the extremes "development at any price" and "development at no price", with dominant values probably mid-way between those extremes. Requiring a proponent to take into consideration values other than its own should not be seen, therefore, as imposing an unreasonable burden.

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Comparing the significance of biophysical and social impacts poses many problems, which derive in part from the fact that many social impacts cannot be expressed quantitatively and in part from the inherent difficulty of comparing dissimilar phenomena. Even where social impacts can be quantified, comparing them with biophysical impacts is not straightforward.

Perhaps the only way of comparing biophysical and social impacts is on the basis of their significance. We recommend that the guidelines require the proponent to address this question on the basis of a review of the literature, of prior experience elsewhere with environmental assessment, and on the basis of its own experience. We recommend also that the Committees instruct the Joint Support Team to commission the preparation of a background paper on this topic, which should be made public.

We recommend that the guidelines require the proponent to explain and justify how its own judgments of significance presented in the EIS were derived. We recommend also that the guidelines require the proponent to present to the best of its ability alternative analyses based on its understanding of other relevant values and value systems. Finally, we recommend that the guidelines require the proponent to explain and justify why it retained one value system over other value systems, if such proves to be the case.

Choosing between competing values or value systems is, of course, an ethical question. We recommend that the Committees retain the services of one or more recognized experts in ethics, including at least one expert in environmental ethics. We recommend that the Committees direct their ethicists to prepare a background paper and recommendations relevant to the ethical aspects of environmental assessments of megaprojects potentially affecting aboriginal groups and individuals and that that report be made public." (Makivik, "Methodological Issues", 1992, pp. 27-28)

Makivik's recommendations are insightful and progressive. They represent a significant challenge for the proponent, and would be difficult to implement without some interparadigmatic dialogue preceding the impact assessment studies and the preparation of the EIS. In order to address other values, the proponent would first need to develop a better understanding of native and northern value systems and paradigms. This learning process would normally take place through consultation, prior to and subsequent to the scoping process. For various reasons, including the refusal of the Crees to participate in a consultation process regarding the Great Whale project, the proponent's programme was not well-advanced in this regard. Once again, this placed a heavy burden on the EA and scoping process to facilitate a mutual learning process that should have been initiated much earlier.

#### Evidence of interparadigmatic dialogue in the scoping process

The Great Whale scoping sessions featured a tentative dialogue between the proponent and the stakeholders. The format of the hearings precluded a fluid dialogue; the proponent and stakeholders made exclusive presentations with occasional opportunities for cross-examination of the former on points of clarification. The cross-examination was conducted by the panels of behalf of stakeholders, so there was no direct formal dialogue. The hearings, by virtue of their structured procedures, therefore featured no volatile, back-and-forth debate between the parties who found themselves polarized on the issue of the Great Whale project. Dialogue, debate, and learning are not primary objectives of EA; when they occur, they do so in spite of the process. "Dialogue" may occur on an indirect, delayed basis: intervenors may have their questions addressed in the proponent's EIS. Although more informal opportunities for dialogue may exist, language, cultural barriers and the polarization of the parties may inhibit this, as was generally the case in the Great Whale scoping hearings. There was little direct dialogue.

The scoping hearings did provide, nonetheless, opportunities for a more incremental kind of mutual learning. Through repeated presentations and interventions, the proponent and the stakeholders become more familiar with each other. On this incremental basis, however, the objectives of learning - demystification or "mystery to mastery" of technical data for stakeholders; mutual understanding and intercultural literacy - may not be realized early enough to make a difference with respect to the issue at hand. There is therefore a need for accelerated learning, facilitated by panels who



are more proactive. An indicator of accelerated learning would be the amount of interparadigmatic dialogue.

The hearings featured delayed and mediated intra-paradigmatic and crossparadigmatic dialogue. Examples of the latter were the many adversarial exchanges in which intervernors would ask value-based questions of the proponent and receive technical answers that they found unsatisfactory. In the cross-paradigmatic mode of dialogue, the proponent presumably had "unstated or secret" constraints that prevented it from engaging into a value debate. On other occasions, native intervenors would ask technical questions and receive satisfactory answers from the proponent. This might be termed a kind of intra-paradigmatic dialogue, since the intervenor temporarily stepped into the proponent's paradigm or "box". Moving beyond these modes and into Judge's "interparadigmatic" or even "metaparadigmatic" would require more conscious effort; this rarely, if ever, happened in the Great Whale scoping hearings.

In order to create and sustain an inter-paradigmatic dialogue featuring "value development" and "inspiration and invention", the proponent and intervenors would have to step out of their respective "boxes" regularly. Judge terms this kind of dialogue "dynamically unstable"; it was not in evidence in the Great Whale hearings. Nor was the "metaparadigmatic" mode", with its turbulence, "value emergence" and "atemporal concerns". Instead, there were only the beginnings of a dialogue, with the parties in full conflict, far from reconciliation. The proponent's answers seldom seemed to satisfy questioners on issues of need and justification; the deeper questions were answered with technical replies. The moral questions that stakeholders posed (e.g. "what gives you the right to destroy our river?") were typically answered in technical, legal, or political terms.

Other evidence supports the analysis that the dialogue in the scoping process remained entrenched in the intra and cross-paradigmatic modes. First, as argued in Chapter 3, there was considerable confusion on the part of intervenors, which can be seen as an indicator of a lack of dialogue and mutual understanding. Moreover, while stakeholders submitted TEK and used various modes of expression, there is no evidence that the proponent

understood the metaphorical input. Since formal dialogue was limited, the proponent did not provide feedback to intervenors. There is some evidence that northern intervenors increased their understanding of the project as a result of the proponent's presentations, even though this could not be termed "dialogue". And while stakeholders may have learned about the project, they learned relatively little regarding upstream questions surrounding the issue; they learned about the project, which is an expression of the proponent's paradigm, but little about the paradigm itself. Conversely, many of the interventions of northerners were attempts to describe their culture and paradigm, but there is little evidence that the proponent understood. A challenge for the panels was therefore to facilitate dialogue, and to ensure a basis for dialogue by steering the proponent "upstream" and the stakeholders "downstream" where necessary.

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In his analysis of EA hearings, Gariépy concluded that learning would likely increase if various actors made repeated appearances at successive hearings (Gariépy, 1991, p. 363). In theory, repeated appearances would allow them to master technical jargon and overcome other learning barriers. One would therefore assume that the longer a process unfolded, the more mutual learning that would take place. On the one hand, the Great Whale scoping hearings were far too brief to allow such learning opportunities, even though two visits were made to Kuujjuarapik. On the other hand, some northerners (particularly Crees) have made careers out of opposing James Bay projects, and Hydro Quebec representatives have likewise made a career of dealing with northern people. In this context, it is surprising how little interparadigmatic dialogue took place in the hearings. This is probably attributable to the distance at which the James Bay development conflicts have unfolded, with little consultation and no formal hearings prior to the scoping process. The prolonged delay of an opportunity for face-to-face meetings between proponent and stakeholders seems to exacerbate crossparadigmatic tensions and places an unrealistic burden on the EA process to resolve them quickly. On a positive note, Chief Matthew Mukash, for one, was pleased with the modest increase in understanding among the parties:

"I know it has been difficult, but I think all of us here didn't know what to expect when we began the hearings. I think, for the little time that we spent together in bringing out some of the arguments and the points that were made by the members of the Inuit community and the Cree community, we have made some progress in terms of understanding one another." (Chief Matthew Mukash, Cree leader, Kuujjuaraapik-Whapmagoostui, March 10, Vol. 8, p. 80)

#### Panel efforts to facilitate interparadigmatic dialogue

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The panel's efforts to create or facilitate a dialogue were sporadic and therefore largely unsuccessful. The panels stayed generally within established rules of public hearings and were effective in making the hearings a consultation process. They seldom ventured beyond this mode into providing a medium of exchange of information, perceptions and values between proponent and stakeholders. No actual mediation took place, nor was it provided for in the legal mandates of the separate or joint panels. (Subsequent EA processes such as the Canadian Environmental Assessment Act now provide explicitly for mediation and conflict resolution as an alternative to normal procedures.)

The facilitation performed by the panels was aimed primarily at explaining or clarifying technical points, not to explore fundamental issues. Some individual interventions were of an interparadigmatic nature, reflecting the bridging function of viable interdependence that reflect the VI framework, and transcending the adversarial, polarized character of the hearings. While the panels were receptive to these interventions, they did not actively build upon them by opening up debate on these occasions. More generally, the panel was effective in mediating between the needs of the northern communities and the formal demands of the EA process. They were less active, however, in mediating or facilitating a dialogue between stakeholders and the proponent at the scoping stage.

#### Multiparadigmatic nature of the EIS Guidelines

Even though the scoping hearings featured little if any interparadigmatic dialogue, the panels prepared EIS guidelines that are multiparadigmatic.



This is reflected in the Master Evaluative Table, presented in Table IX (p. 211), with reference to the "O" criterion.

### Table IX - Support in EIS Guidelines for substantive and process-oriented criteria (facilitates interparadigmatic dialogue)

Guideline	Substantive criteria	General process criteria	Specific process criteria	Comments
126. Local knowledge; conceptual and symbolic systems	A••	F••• [•• J•• K•	M••• N•• O• P•••	An explicit recognition of the intercultural challenge of EA.
127. Cultural relativity of values; diversity	A+•	F•••	M••• O•	An explicit basis for an intercultural approach to EA.
302. Guiding principles for describing environment	A•	F•• G•••	M• N• O• P•••	Addresses intercultural aspect; valued ecosystem components; human- ecological interface.
305. Valued ecosystem components		[•• ]••	M• N• O• P•••	Reformulation of problem to recognize cultural diversity.
306. Components valued by each community		F••• H•• J•	M••• N• O••	Explicit requirement to value input of each culture separately.
378. Land uses			M•• O•	Social structures, symbol systems of natives to be taken into account.
384. Social organization and symbol systems		I•	М••• О• Р••	Native systems for explaining changes, dynamics emphasized.
567. Respect for culture	A••• C•••	F•••	M••• N••• O• P•••	A key integrative section, with pluralism emphasized strongly. A synthesis of native concerns.
569. Values with regard to environment			0•• P•••	Integrative, summative statement.

(•=some support ••=substantial support •••=strong support)

Table IX (p. 211) indicates that there was relatively little support reflected in the guidelines for "facilitating interparadigmatic dialogue". The guidelines require the proponent to characterize the environment and assess impacts with reference to the paradigms of native people. In particular, the

Principal Assessment Criteria provide a unifying framework that encourages the pattern of conflict and non-viable interdependence to be broken. Instead of funneling the scoping input into one framework or paradigm, the panels created guidelines that ensure that neither paradigm is diminished or lost. The responsiveness of the panels, however, does not mean that they actively encouraged or facilitated interparadigmatic dialogue during the hearings.

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#### An alternative to interparadigmatic tensions: more dynamic scoping

An alternative to the approach taken by the panels would have been a more active facilitation role in a more dynamic kind of scoping. This could have been achieved by introducing dialogue and rebuttal in scoping rather than waiting until subsequent hearings. Intervenors and the proponent could have questioned each other directly with respect to fundamental issues as well as points of clarification. This could have been facilitated by the panel on a selective basis; the panels could have asked the proponent to react to scoping input during the hearings rather than in their EIS only. This kind of instantaneous response would have created a dialogue and possibly accelerated interparadigmatic learning. Instead, the ponderous pace of exchange likely means that the "dialogue" will take years or decades to unfold, thus perpetuating polarization and non-viable interdependence.

The current, static model of scoping offers opportunities for incidental dialogue only. This passive system, based on delayed feedback, is a constraint to learning. It would be unfair, however, to expect a radical reshaping of the scoping function, given the constraining mandates that the panels work with. A more workable model might be the provision of a separate cross-cultural workshop prior to scoping that set out with a specific objective of interparadigmatic dialogue. The panels, acting as facilitators, would encourage mutual learning, multicultural literacy and value development. The workshop would lay a foundation for more productive scoping and EA. In summary, these two proposed models - more dynamic scoping or a parallel workshop - are alternatives to the current approach, in which too little dialogue takes place.

#### 4.5.3 Conclusion: facilitation of interparadigmatic dialogue

It is reasonable to conclude on the basis of the evidence that little interparadigmatic dialogue took place in the hearings, and that the panels were not active in facilitating dialogue. Although, as Gariépy has pointed out, it is very difficult to measure learning in an EA process, it is unlikely that the ecological or cultural literacy of either party increased more than marginally in the scoping process. Likewise, it is difficult to conclude that the competing paradigms moved more than slightly toward integration. With respect to Judge's framework, there was little movement beyond the intra and cross-paradigmatic dialogue modes. It is recognized that scoping is a preliminary step in a lengthy process, and that expectations for dialogue and learning should be accordingly modest. In the final analysis, however, a better foundation could have been established through more dynamic scoping.

#### 4.6 PROBLEM-SETTING FUNCTION

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In this section the problem definition function in the Great Whale scoping process is analyzed. The theoretical base discusses the phenomenon of problem-setting in EA and scoping, and a general comparison of the Great Whale case to other case studies if offered. The challenge of problemsetting is discussed with reference to viable interdependence. The analysis begins with an examination of the prevailing problem definitions at the outset of the scoping process and how these evolved. Debates in the process surrounding problem definition are discussed. The EIS guidelines are analyzed in terms of whether or not they accommodate more than one problem definition, and to what extent they provide evidence of a problem reformulation function in the scoping process. The section concludes with a discussion of the possible imprint left by the problem-setting function in the Great Whale scoping process.

#### 4.6.1 Theoretical base of analysis

The key objectives of this analysis are to determine whether the scoping process influenced the problem definition surrounding the Great Whale project issue; if so, which interests were influential in reshaping the problem; and, if the problem definition changed, whether or not it evolved toward one which might support viable interdependence. The focus of analysis is broad, aimed at the scoping process as a whole with particular attention to the intervenors and panels. The scoping transcripts and EIS guidelines are both primary data sources. Analytical tools include participant observation, research notes, and the master evaluative table.

As discussed in Chapter 2, EA is a framework with embedded scientific values that tends to cast issues and problems in certain ways. The predominant bias in EA is toward reducing complex social and ecological problems into studiable impacts on components of the affected biophysical and social environment. While this process has sometimes served stakeholders well, it has often resulted in unsatisfying impact statements that stop short of addressing central issues and problems. Unlike planning

processes, which may begin with a broad focus and problem definition at the outset, EA is designed to focus quickly on a relatively limited and manageable set of issues. The scoping stage of EA is supposed to identify issues and concerns in the context of a problem or opportunity. It is only in rare cases of "concept" or "class" assessments that scoping is supposed to identify the problem or opportunity itself. In other words, most EA processes begin with a pre-defined context and problem, which tends to be narrow, and feature relatively little real opportunity to revisit or reshape it. Scoping is popularly described as an increasingly narrow funnel. Beanlands and Duinker (1983) described scoping as "the design of the assessment portion of ELA" and the role of "social scoping" as "establishment of the terms in which impacts should be expressed". No mention is made of a problem definition function.

Other researchers such as Gariépy take a different view, one which holds the possibility of problem redefinition. In this kind of EA process, in which the outcome is "up for grabs", and evidence of public influence might be measured in terms of changes to the projects being studied, active debate concerning the problem definition is necessary (1991, pp. 368-369). The opposite is a process in which stakeholders are purely reactive:

"If participation remains strictly reactive, the central problem in conducting an EIA remains that of correctly assessing and evaluating impacts with the objective of a correct technical evaluation of a predictable environment. The alternate view is one of a process whose outcome cannot be foreseen and which the initiator may or may not be able to control." (1991, p. 370)

In summary, although EA processes may tend to accept narrow problem definitions, when sufficient stakeholder pressure is brought to bear upon a process, the "game" may change into something broader.

#### Alternative scenarios in problem setting

When scoping takes on a problem definition function, several scenarios are possible. Issues cast as "technical" may be recast into "social" issues. A "go" or "no go" decision on a specific project may become secondary as the debate



is transformed into a choice of futures for a region - this is a more fundamental shift, amounting to problem reconceptualization. In general, there are three possible outcomes in problem reshaping: the core problem may be challenged but remain unchanged; the core problem may be expanded; and the core problem may be changed altogether. In examining what occurred in the Great Whale process, it is necessary to consider the nature of the issue itself, and then to analyze the dynamics that unfolded within the scoping hearings.

## 4.6.2 Descriptive and comparative discussion of problem definition functions

In considering the problem definition function in the Great Whale scoping process, it is useful to compare it to two other cases studies - the BEARP case, as analyzed by Sadler, and the BAPE case studies conducted by Gariépy.

#### BEARP and Great Whale compared

The BEARP case represented, in the early 1980's, the leading edge of policy assessment in Canada. Great Whale, on the other hand, was a project-specific EA process, and was thus charged with a more narrow mandate. BEARP thus began with more flexibility up-front in terms of its problem-setting function. As Sadler suggests, BEARP was created in response to concerns about the inability of project-specific EA's to address the general issue of the appropriateness of hydrocarbon development in the Beaufort Sea Region:

"The policy and institutional context exemplified, in capital letters, the long-standing dilemma of northern decision-making, whereby impactrelated concerns about specific projects become recast into fundamental and competing visions of the future of the region." (Sadler, 1990, p. 30)

As Sadler suggests, a policy vacuum existed at the time with respect to hydrocarbon development in the Beaufort region. In the absence of adequate debate and study, proponents were trying to proceed with oil and gas projects - they were headed downstream without first having resolved upstream debates. The mandate of BEARP was not as broad as that of the



Berger Inquiry, which was applauded by native stakeholders and environmentalists but criticized heavily by industrial interests. In the latter case, the final report of Berger derailed a megaproject, partly by recasting the problem considerably from how it was popularly perceived at the outset. In the case of the James Bay hydroelectric project controversies, the benefit of an upstream debate in the form of an EA process had not been given to stakeholders prior to the La Grande project. La Grande had proceeded, and Great Whale was proposed, prior to any formal public policy debate or concept assessment.

The BEARP process had an extraordinarily broad mandate to review a "regional development scenario". In the case of Great Whale, the mandate was to review a specific project, but one that was in many ways tantamount to a regional development scenario for Nunavik and the northern portion of the Cree lands, and one that begged enormous questions. Both BEARP and Great Whale had extended time and space boundaries, but in the case of the latter they expanded in the course of scoping, while in BEARP they were broad from the beginning. With respect to the clarity of the tasks, there were again differences: the proposal to be evaluated in BEARP was unclear to many (Sadler, p. 29). As for Great Whale, once the proponent's proposed split review (first the access infrastructure, then the project) was judged to be untenable by the courts, the proposal itself was relatively clear. As argued above, however, the clarity of the proposal does not guarantee clarity or consensus with respect to the core problem at hand.

The BEARP panel seemed to have broad latitude in defining their own review process. The panel opted for, as a review strategy, an EIS preparation and review (Sadler, 1990, p. 29), whereas this was predetermined in the case of Great Whale. In the BEARP case, the major interest group, the Beaufort Sea Alliance, argued for a pure policy or concept assessment and much of their disappointment with the outcome of BEARP is attributable to losing this initial battle (Sadler, 1990, p. 29). BEARP started broad and became narrower, while Great Whale appeared to be heading the opposite way as it ended prematurely. The BEARP review addressed the "how to" develop hydrocarbon resources but not the "whether to". (As Sadler notes, BEARP could not address the In general terms, the BEARP case featured a proposal that was broad and unclear; and a core problem that was perceived as too narrow by many stakeholders. Neither BEARP's scoping exercise nor its EIS guidelines succeeded in expanding the core problem, and therefore in satisfying stakeholders that the issues of importance to them had been addressed adequately. In contrast, the Great Whale case featured a relatively clear proposal and a core problem that was limited initially but which had considerable potential for expansion. By the guidelines stage of the Great Whale case, the core problem remained unchanged (whether to proceed with the project) but the conception of the project's receiving environment had been redefined radically - the core problem was the same but the context had been re-defined in intercultural terms. Where BEARP's more ambitious participants sought to "set a context for resource allocation" but stopped short of doing so, (Sadler, 1990, p. 58); the Great Whale scoping process set an intercultural context for development.

#### The BAPE cases and Great Whale compared

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As discussed in chapters 1 and 2 of this thesis, Gariépy has critiqued the BAPE process, partly on the basis of its deficiencies in terms of problemsetting. He notes that the BAPE cases he analyzed featured little overflow upstream to policy issues and "few departures from pre-defined elements"; and a very timid regulator (MENVIQ) that was "colonized" by the regulated (proponents). He elaborates:

"Hydro Québec was very successful in bending the objectives of EIA to suit its own goals, in controlling how a project was justified and in determining what alternatives were considered." (Gariépy, 1991, p. 360)

Although Gariépy suggests that the overall pattern was for the proponent to define the elements of the review, he also notes that the BAPE panels were occasionally influential in problem setting. In the latter cases, BAPE played

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a key role in problem-setting by not pretending to be "objective referees" but instead "active inquisitors" who shape the public's perception and contribute to participant's mastery of the technical aspects under discussion (Gariépy, 1991, p. 365). It is clear from Gariépy's analysis that the problemsetting function of a panel is variable, and to some extent determined by the values, inclinations and abilities of the individual panelists and chairs.

It must be noted that Gariépy's analysis deals not with a scoping stage, but primarily the EIS review stage of the BAPE process, where there may be greater opportunities for a proponent to dominate. Another key difference sets the two case studies apart: the "mega" nature of the Great Whale project and review process. The scope and scale of the Great Whale project proposal made the proponent subject to greater scrutiny than in the case of BAPE reviews. In practice, this higher level of scrutiny also made it easier for upstream policy issues to be addressed since these were central to the project's justification as a new development scenario for the region.

The Great Whale case was also distinguished by its joint panel arrangement, which expanded the possibilities for panel influence in the scoping process. Moreover, the prospect of a vigorous problem-setting function rests largely on opportunities for public involvement; these were considerable in the BAPE cases, but even more extensive in Great Whale. Two observations were possible even in the early stages of the Great Whale scoping process. First, the proponent did not dominate the hearings in any way, and did not set the tone or the agenda of the proceedings. Second, the process was not reactive to the project proposal only, but also to the historical and actual context of development relations between north and south - thus ensuring the prospect of debate and problem-reshaping. By virtue of their nature, scope and scale, mega-project reviews seem to be inherently different in many respects than more routine, smaller scale hearing processes.

#### 4.6.3 Analysis of problem-setting function

The formal scoping process and the informal debate framing the Great Whale issue featured a kind of competition or propaganda war over problem definition. A marked cleavage of problem definitions existed at the outset of the scoping process; there was considerable conflict and little dialogue between the competing sides. At this stage there were at least two dominant and conflicting problem definitions, which could be linked to the paradigms described in section 4.5. The proposed project was variously framed as an unwarranted intrusion or a benefit for an underdeveloped region; an isolated decision or a far-reaching choice of futures; and "winwin", "win-lose" or eve "lose-lose" in terms of its benefits and costs. The receiving environment was described in terms of either hinterland or homeland. The central problem was characterized variously as the environment's ability to absorb the impacts of the project; the proponent's ability to describe, quantify, mitigate and compensate impacts; or, upstream from these, the fundamental appropriateness of this sort of development in the region. A basic tension therefore existed between those positioned for an upstream debate of justification and those further downstream and prepared to debate the specifics of how the project could be carried out. Given these tensions prior to and at the outset of the scoping process, all stakeholders had a strong interest in seeing which problem definitions would be rejected, accommodated or validated by the process. The proof within the formal EA process, generally speaking, would be found in the EIS guidelines.

#### Debate in the hearings over problem definitions

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A sample of interventions from the scoping hearings shows a wide range of strong submissions for problem definitions and frames. Beyond the submission of valued ecosystem components (e.g. an intervenor expressing concern about a species, resource or place), there were interventions concerning cumulative and transboundary impacts such as global warming. Depending on the intervenor's perspective on boundaries, the proposed project entailed potential impacts on a regional, provincial, bioregional or global scale. Likewise, some intervenors were explicit in addressing issues from a different angle than that of the proponent - for example viewing impacts qualitatively in terms of loss of quality of life from a northern perspective (e.g. Paul Charest). Other problem-reshaping submissions focused on introducing frameworks for impact assessment, or complementary to it: shorter or longer study time frames; expanded range of alternatives studied; "cumulative impact assessment"; "full cost accounting"; "social costing"; "multiple account evaluation" (David Cliche (Montreal, March 17, Vol. 2, p. 34); or "integrated resource planning" (Mouvement Au Courant, and others). Single interest groups, for their part, argued for job creation or economic development as an overarching value in the debate (Club d'électricité du Québec; Centrale des syndicats démocratiques).

In contrast to the narrow conceptions of some single interest groups, others cast the problem in the broadest possible terms - a moral issue of the right to dam wild rivers. Moreover, in an attempt to broaden the boundaries, many Cree intervenors spoke at length about the La Grande experience and sought to ensure that Great Whale is evaluated in this context. The panels could have been more restrictive in steering intervenors to focus only on issues and valued ecosystem components. Instead, the panels generally welcomed the more fundamental and philosophical input. By accepting input relating to both upstream and downstream issues, the panels created an expectation that they would continue to be as flexible and receptive throughout the EA process. The next step would be to validate the problem setting function of the scoping hearings by creating EIS guidelines that recognized the values, concerns and perspectives gathered up to that point.

#### Problem setting function reflected in the EIS guidelines

Analysis of the EIS guidelines demonstrates a number of ways that the review panels, with assistance from the support staff, recognized and captured much of the problem-setting function of the scoping process. Table X (p. 222) analyzes and evaluates individual guidelines in terms of their support for substantive and process criteria of viable interdependence.



# Table X - Support in EIS Guidelines for substantive and process-oriented criteria (problem-setting function)

(•=some support ••=substantial support •••=strong support)

		<u> </u>		
Guideline	Substantive	General	Specific	Comments
	criteria	process	process	
		criteria	criteria	
111. Principal assessment	A•	J••	P ••	Proposed project is cast as
criteria	C • • •			a sustainability/equity
	D••			issue; onus on proponent to
				defend as such.
121. Ecosystem integrity	D•••	F•	P••	Broad definition of
, , ,				ecosystem integrates
				social, health aspects.
124. Cumulative impacts			P••	Explicit requirement for
			-	broad assessment.
125. Global impacts		h	P••	Explicit requirement for
120. Global impacts		1		broad assessment.
126. Local knowledge;	A••	F	M•••	An explicit recognition of
conceptual and symbolic		I••	N••	the intercultural
		Jee .	0.	challenge of EA.
systems		K•	P•••	chantenge of EA.
			Peee	Euroliait attacent to
212. Inequity of costs and	B•	<b>I</b> ●●	P	Explicit attempt to
benefits	C••			reformulate problem.
302. Guiding principles for	A•	F••	M•	Addresses intercultural
describing environment		G+++	N•	aspect; valued ecosystem
			0•	components; human-
			P•••	ecological interface.
305. Valued ecosystem		I••	M•	Reformulation of problem
components		J••	N•	to recognize cultural
-			0•	diversity.
			P•••	
307. Components perceived			P•	Reflects emphasis on
as threatened				perceptions in addition to
				"objective" findings.
308. Geographic boundaries		F••	M••	Proponent required to
<b>U</b> .		H••	P••	refer to perceptions,
		ļ		knowledge of each group.
310. Historical trends	· · ·	F•	M•	Reflects a non-
		H•	P••	deterministic approach;
				affected groups to shape
				boundaries to some extent.
375. Demographics		F•	P•	Problem cast both in
oror DemoBrahines		1-	<b>`</b>	native and non-native
				terms.
380. Land use		J•	N•	Alternatives identified
sou. Land use		K•	P••	by natives to be
		~		considered.
	U	<u> </u>		L'considered.



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384. Social organization and symbol systems		I•	M••• O• P••	Native systems for explaining changes, dynamics emphasized.
385. Community perceptions of project	A• C•	F••	N•• P••	Proponent required to integrate multiple perspectives.
504. Five fundamental issues to be evaluated		J••	P•••	Strong guidance for proponent to avoid reductionist approach.
511. Cultural aspects of diet		J••	M•• N••• P••	Proponent given specific guidance, in intercultural terms.
518. Stress and quality of life			N• P●	Feelings of alienation or belonging linked to health.
557. Social cohesion			N•• P••	Requirement a composite of various interventions made in hearings.
559. Social organization		J••	N••• P••	A highly interpretive section, capturing concerns implied by intervenors.
561. Opening of the region			N• P•••	Very specific list of social impact concerns, amounting to a problem statement.
565. Job creation; native attitudes toward			N•• P••	Complex problems related to job creation are recognized.
567. Respect for culture	A••• C•••	F•••	M••• N••• O• P•••	A key integrative section, with pluralism emphasized strongly. A synthesis of native concerns.
569. Values with regard to environment			0•• P•••	Integrative, summative statement.
618. Valued or sacred sites			P•	Proponent required to make knowledge available to native organizations.
620. Education programs regarding project, impacts			N•● P•	Responsive to lack of knowledge in communities about project, impacts.

### Analysis of the Master Evaluative Table from a problem-setting perspective

First, in the Principal Assessment Criteria (guideline #111) of the guidelines, the proposed project is cast as a sustainability and equity issue. The choice to place the issue in a global context is reinforced by the broad

definition of ecosystem used, as well as the emphasis placed on transboundary and cumulative impacts (guidelines 121, 124, 125). Emphasis on the intercultural challenge facing the proponent in describing the environment and impacts is reflected strongly in several guidelines (e.g. #s 126, 305, 384, 385 "community perceptions of project", 511, 567, and 569). In the case of guideline #305, "valued ecosystem components", a standard element of EA has been reformulated to address cultural diversity. Guideline #302, "guiding principles for describing environment" is explicit in its emphasis of the intercultural challenge. Finally, guideline #504, "five fundamental issues to be evaluated" is a strong example of problem-setting, since it identifies clearly for the proponent a set of challenges.

Other guidelines reflect a problem reformulation role played by the panels in response to the scoping hearings. Guideline #212 (inequity of costs and benefits) an example of problem reformulation. In past EA processes, a proponent would likely have been directed to explain the costs and benefits of the project, taking into account the perspectives of stakeholders. By framing the issue in terms of "inequity", from a different angle than that of the proponent, the problem definition is altered since it is assumed that the normal distribution costs and benefits entails some inherent inequities. The proponent is in effect asked to explain how it will address a pattern of non-viable interdependence. Likewise, guideline #561 ("opening of the region") carries with it a list of specific social impact concerns and amounts to a problem statement. The proponent is again challenged to discuss impacts in a wider context than it otherwise might have been.

All of the aforementioned guidelines can be correlated to demands made by stakeholders in the scoping hearings. As argued in section 4.4 of this thesis, the panels, instead of merely listing stakeholder concerns, synthesized them into a framework for intercultural EA. This problem setting function began in the scoping hearings with the panels' receptiveness to input that focused on upstream issues. Beyond this, the panels decided to build pluralism explicitly into the framework: there is continual reference in the guidelines to distinct groups for whom the EIS must be accessible and understandable. A single perspective with respect to impact assessment would not be acceptable in this context of multiple realities. The proponent is required to



present a clear description of the project and impacts in intercultural terms, and to therefore increase its own intercultural literacy. In practice, these requirements imply the need for a new approach to consultation and EA.

#### 4.6.4 Problem-setting reflecting northern input

The problem definition contained in the EIS guidelines is richer and more complex than either of the competing views that defined the issue at the outset of the scoping process. Instead of the prospect of one problem definition prevailing at the expense of the other, the guidelines propose a plurality of valid conceptions and challenge the proponent to reconcile them in a win/win resolution scenario. Prior to reaching that stage, however, the proponent is challenged to understand and describe the project's receiving environment in new ways, with reference to northerners' values and knowledge systems. The proponent's ability to explain and communicate becomes a pre-requisite for bargaining. Instead of merely demonstrating the ability and willingness of northerners to absorb the changes, benefits and impacts implied by the project, the proponent is asked to adapt the project to their context. Thus, the problem reshaping that took place in the scoping process had more to do with the receiving environment than the project itself or its benefits and impacts. In summary, the proponent's problem is to first understand the environment from multiple perspectives, then to justify its project and impacts, with reference to the principal assessment criteria.

The scoping process succeeded in challenging the prevailing problem definitions and establishing a new, more conciliatory one that combined the competing views. It would be premature to conclude that a new, shared perception of the problem resulted but it would be reasonable to expect this to happen eventually as a result of improved consultation and dialogue. The scoping process marked the initiation of what Tryzna and Gotelli term a "...subtle reshaping of relationships, reshaping of power, reshaping and expanding of information flow" (Tryzna & Gotelli, 1990).

The proponent was the problem initiator at the outset of the process, but not the primary problem definer throughout the scoping exercise. The



scoping "funnel" was not fixed but rather subject to frequent adjustment. The panels were predisposed to expanding the problem definition, within limits. They were careful to recast the problem in ways that the proponent could reasonably be expected to respond to in an EIS - otherwise, the EA process would be overly ambitious.

#### 4.6.5 Conclusion: the imprint left by the problem reformulation

It is beyond the scope of this thesis to measure the impact of scoping process on the outcome of the Great Whale issue, although it is possible to assess the imprint left by the scoping process on the EIS guidelines and possibly extrapolate. Had the Great Whale EA process reached its full conclusion, the key to the issue outcome would have been the public endorsement or rejection of its conclusions and its underlying problem definition. Gariépy concluded that, in order to be effective in terms of issue outcome, the formal debate in the BAPE process had to spill over into another forum (Gariépy, 1991, p. 372). In the case of Great Whale, however, the megaproject scale of the issue meant that the "dual political system" (the formal EA process and beyond) was less delineated by virtue of the high level of public awareness and interest. It is nonetheless true that, as in the BAPE cases, some groups perceived a certain futility of the EA process and directed their efforts to other fora. The strategy of the Cree leaders reflected their view of a dual political system and their limited confidence in the EA process.

As argued above, the Great Whale scoping process went considerably beyond the "rationality ritual" syndrome of some EA processes. The problem setting that took place shifted the character of the issue from polarization toward a richer and more dynamic dialogue in support of the prospect of viable interdependence.



#### 5.1 INTRODUCTION

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In this chapter the five preceding sub-evaluations are combined and synthesized. The sub-evaluations, which addressed the specific processoriented criteria, are linked to the more general process-oriented and substantive criteria. Actual and potential linkages among the categories of process-oriented and substantive criteria are explored in order to identify the most solid and promising interrelationships. Finally, conclusions are proposed with respect to the goals, objectives and major questions of the thesis. Conclusions are proposed with respect to the evaluative framework and criteria; EA, viable interdependence and sustainable development; and the value of the case study in terms of process development. First, however, it is necessary to review the objectives of this thesis and recapitulate the steps taken thus far.

#### 5.1.1 EA, scoping and viable interdependence

This thesis began with a problem statement concerning the pattern of southern-inspired development in Canada's north. As argued in Chapter 1, much of this development has been large-scale, culturally inappropriate, ecologically unsound, and socially inequitable. It was proposed that EA, and particularly its scoping phase, may make a substantial contribution to viable interdependence if the process is designed and used with its intercultural context in mind. The goal of this thesis was a better understanding of the potential of EA and scoping to support viable interdependence. The objectives included the development of an evaluative framework which proposed essential criteria for EA in support of viable interdependence (Table XI on p. 228); and experimental application of the framework to a case study, which involved analysis of the Great Whale scoping process. The present objective is to undertake an evaluation based on the preceding analyses, and to explore links and pathways among the process-oriented and substantive evaluative criteria. A related objective

of this final chapter is to draw out the lessons and significance of the case study and evaluation in terms of process development for EA. Where appropriate, prescriptive recommendations are proposed regarding future application of EA and scoping in northern intercultural cases.

#### **Table XI: Evaluative Criteria**

Substantive	Process-oriented (general)	Process-oriented (specific)	
A. Culturally appropriate development	F. Equity and respect	L. Appropriate balance of formality/informality	
•	G. Transparency and mutual		
B. Appropriate scale, timing, and pace of development	understanding	M. Receptive to multiple knowledge systems and	
• •	H. Non-deterministic	patterns of expression	
C. Equitable development		• •	
D. Ecologically sustainable	I. Displacements of power/influence	N. Interpretive capacity/function	
development	J. Transformative	O. Facilitates inter-	
E. Development that	J. Mansionnative	paradigmatic dialogue	
promotes community self-	K. Unlocks creative forces in	paraionaire annogae	
reliance	community	P. Problem-setting function	

The analyses or sub-evaluations conducted in Chapter 4 made use of a range of analytical tools and measures. Evaluative questions were posed to determine whether or not criteria were supported in the case study; if so, whether this support was direct, directly, explicit, or implicit; and what values were emphasized or ignored. The specific process-oriented criteria were not ordered by priority, although they are somewhat sequential - they set the stage for each other, and each is a kind of pre-condition for the next. In this way, the framework approximates a logical flow from specificity to generality, and from process to substance. The findings of the sub-evaluations are summarized below in Table XII (p. 229) and links and pathways within the evaluative framework are discussed afterward.



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### Table XII: Summary of key findings in sub-evaluations

Sub-evaluation	Key Findings
4.2 Appropriate	<ul> <li>Good balance of formality and informality in scoping hearings</li> </ul>
balance of formality and informality	<ul> <li>Hearing were generally responsive to needs of participants but some opportunities were missed</li> </ul>
	<ul> <li>Due process in terms of stakeholder consultation was served</li> </ul>
	<ul> <li>Level of formality differed somewhat with panels</li> </ul>
	<ul> <li>Process was generally well adapted to locales; panels were more lenient and informal in northern hearings</li> </ul>
	<ul> <li>Confusion was prevalent in northern hearings; not all intervenors were satisfied with format and style of hearings; many felt rushed</li> </ul>
	<ul> <li>Better preparation/advance work in communities prior to scoping hearings would have enhanced the process</li> </ul>
4.3 Receptive to multiple	<ul> <li>Panels' commitment to the inclusion of TEK reflected by commissioning of technical report (Mailhot)</li> </ul>
knowledge systems and patterns of	<ul> <li>Scoping was receptive to TEK within limits of the process but stopped short of gathering it systematically</li> </ul>
expression	<ul> <li>Panels acted as catalysts promoting use of TEK; set stage for subsequent integration of TEK in later stages of EA process</li> </ul>
	<ul> <li>Stakeholder input reflecting TEK recognized in EIS guidelines</li> </ul>
	<ul> <li>Panels were receptive to multiple patterns of expression, within time limits of process; reasonable efforts were made</li> </ul>
	<ul> <li>Some, but not all, non-guideline specific input was addressed or incorporated in EIS guidelines</li> </ul>
	<ul> <li>Non-guideline specific input tended to relate to recurring themes, metaphors and symbols, many of which are addressed or emphasized in EIS guidelines</li> </ul>
	<ul> <li>Better preparation by panels warranted to familiarize all panelists with different patterns of expression</li> </ul>

4.4 Interpretive capacity/ function	• Interpretive capacity was not included explicitly in panels; panels did not necessarily acquire knowledge relating to interpretive capacity
MILLON	• Pre-hearing preparation would have benefited panels and process in terms of interpretation of input
	<ul> <li>Impressive efforts by panels, support office to interpret non-guideline specific scoping input</li> </ul>
	Interpretation of scoping input was selective, not exhaustive
	<ul> <li>Quality of EIS guidelines was enhanced by the interpretation performed</li> </ul>
4.5 Facilitates inter- paradigmatic	<ul> <li>Scoping hearings were characterized by two predominant competing paradigms</li> </ul>
dialogue	<ul> <li>There was at best a tentative dialogue between proponent and stakeholders with respect to interparadigmatic tensions</li> </ul>
	<ul> <li>Hearings featured "delayed" intra-paradigmatic and cross- paradigmatic dialogue, facilitated by panels</li> </ul>
	Few instances of interparadigmatic or meta-paradigmatic dialogue
	<ul> <li>Some modest, incremental mutual learning likely took place</li> </ul>
	• Panel efforts to facilitate dialogue were sporadic, mostly unsuccessful
	• Despite lack of dialogue, the EIS guidelines are a multi-paradigmatic, unifying framework
	• The static model of scoping used provides little opportunity for dialogue
4.6 Problem- setting function	<ul> <li>A tension between problem definitions existed at the outset of the scoping process</li> </ul>
	<ul> <li>Many problem-expanding or reshaping interventions were heard in the scoping process</li> </ul>
	• Panels were receptive to upstream input, and reflected this input in EIS guidelines
	<ul> <li>Panels captured much of the problem-setting function in the scoping process and reflected it in the EIS guidelines</li> </ul>
	<ul> <li>Through the EIS guidelines, the proponent is challenged to address an expanded, richer, more pluralistic problem definition</li> </ul>



#### 5.1.2 Discussion of key findings

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Each of the five sub-evaluations demonstrated strengths and deficiencies with respect to the performance of the case study. The scoping process measured relatively well with respect to three of the specific processoriented criteria, namely "appropriate balance of formality and informality"; "receptive to multiple knowledge systems and patterns of expression"; and "problem-setting function". The process performed less well with respect to "interpretive capacity/function". Finally, the process performed relatively poorly with respect to "facilitates interparadigmatic dialogue".

One conclusion to be drawn from these differences in performance is that the scoping process fared much better with respect to "setting the stage" for the pursuit of viable interdependence through EA than with actually resolving the intercultural conflicts over the Great Whale development proposal. The scoping process's principal strengths were in creating a context for an enlightened resolution of the conflict, partly through an appropriate balance of formality and informality; partly through receptiveness to intercultural knowledge systems and patterns of expression; and partly by recognizing and validating alternative problem definitions. The process made more tentative progress in fully interpreting the rich collection of knowledge and information gathered, which points to a need to build this capacity more deliberately into the panels and their support staff. It also suggests, however, a more inherent limitation of EA a systemic tendency to re-interpret various kinds of input into a single scientific framework for assessment. Finally, by any measure, the scoping process did not fare well with respect to facilitating interparadigmatic dialogue, which is a fundamental step in creative conflict resolution, mutual learning and viable interdependence.

The overall performance of the scoping process with respect to the primary evaluative criteria suggests that the "easier" steps were taken in terms of laying a foundation for viable interdependence, but that the more difficult steps - particularly in the area of facilitating interparadigmatic dialogue were not. Nevertheless, as argued earlier, the performance of the scoping process was impressive and ground-breaking in a number of regards. Moreover, it must be remembered that scoping is a preliminary, albeit critical step, in EA. The performance "shortcomings" of the scoping process might have been addressed later in the EA exercise, had the Great Whale review proceeded.

## 5.1.3 Support for substantive and general process-oriented criteria

In evaluating the performance of the case study it is also necessary to look at the more indirect criteria - the substantive and general process-oriented criteria. This is done in two ways - first, by assessing the support for these criteria in the EIS guidelines, and secondly, by linking them to the specific process-oriented criteria. Table XIII (p. 232) depicts a general assessment of support in the EIS guidelines for the criteria. A rating scale of 1-3 is once again used to assess support in the guidelines for the given criterion; a score of "1" indicates that there is support, although not substantial; "2" indicates substantial support; and "3" indicates strong support. The scale, used throughout the thesis, is intended to be indicative. Although it is subjective, it is also "calibrated" - a score of "2" in the present evaluation, for example, indicates the same level of support as a score of "2" in earlier chapters. In other words, the value of the scores is consistent throughout the evaluation, and the method used is the same - a comprehensive conformity analysis of the guidelines against the criteria.

## Table XIII - Support in EIS Guidelines for substantive and general processoriented criteria (overall conclusions)

(• = some support •• = substantial support ••• = strong support)

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Guideline	Substantive criteria	General process criteria	Comments
111. Principal assessment criteria	A• C••• D••	J••	Proposed project is cast as a sustainability/equity issue; onus on proponent to defend as such.
112. Brundtland definition of sustainable development (i.e. carrying capacities)	D•••		Elaboration of sustainability definition.

113. Rights of communities to determine their future       A•       Goal of self-reliance is im         120. Significance of impacts; valued ecosystem components       A•       Recognition of cultural relimpacts.	<b>F</b>
valued ecosystem impacts.	
valued ecosystem impacts.	
valued ecosystem impacts.	ativity of
	-
121. Ecosystem integrity D••• F• Broad definition of ecosyst	tem
integrates social, health a	spects.
126. Local knowledge; A•• F••• An explicit recognition of	
conceptual and symbolic I•• intercultural challenge of	EA.
systems	
K•	
127. Cultural relativity of A•• F••• An explicit basis for an	
values; diversity intercultural approach to 1	EA.
128. Local stakeholder A•• F••• Importance of local values	and
consultation C•• G• perspectives emphasized.	
132. Consultation G•• Explicit reference to cultur	ral,
methodology linguistic barriers to consu	
141. Translation of EIS; G•• Proactive measure to enha	nce
accessibility of EIS format mutual understanding.	
212. Inequity of costs and B• I•• Explicit attempt to reform	ulate
benefits C•• problem.	
302. Guiding principles for A• F•• Addresses intercultural as	pect;
describing environment G••• valued ecosystem compone	nts;
human-ecological interfac	e.
303. Description of F•• Requirement that knowled	ge of
environment each group be addressed.	Ŭ
304. Multicultural A•• F••• Very strong and explicit	
definition of environment G••• requirement for intercultur	al
I•● approach to EA.	
J••	
305. Valued ecosystem I•• Reformulation of problem	
components J•• recognize cultural diversit	
306. Components valued by F••• Explicit requirement to val	ue input
each community H•• of each culture separately.	
J•	
308. Geographic boundaries F•• Proponent required to refer	to
H•• perceptions, knowledge of	
group.	

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310. Historical trends		F∙ H∙	Reflects a non-deterministic approach; affected groups to shape boundaries to some extent.
368. Birds: inventory and analysis		F•	Proponent must differentiate between interests of natives and non-natives.
375. Demographics		F•	Problem cast both in native and non- native terms.
380. Land use		J• K•	Alternatives identified by natives to be considered.
382. Archaeological and historical study		F••	Close collaboration with Avataq Cultural Institute, Cree Regional Authority required.
384. Social organization and symbol systems		[•	Native systems for explaining changes, dynamics emphasized.
385. Community perceptions of project	A• C•	F••	Proponent required to integrate multiple perspectives.
504. Five fundamental issues to be evaluated		J••	Strong guidance for proponent to avoid reductionist approach.
511. Cultural aspects of diet		J••	Proponent given specific guidance, in intercultural terms.
552. Exploitation of resources	C••	_	Regional context is emphasized.
559. Social organization		J••	A highly interpretive section, capturing concerns implied by intervenors.
567. Respect for culture	A••• C•••	F•••	A key integrative section, with pluralism emphasized strongly. A synthesis of native concerns.
608. Mitigative measures	A••	F••	Requirement to review L a Grande experience, after intervenors expressed dissatisfaction with mitigation.

#### 5.1.4 Support for substantive criteria in the EIS guidelines

The EIS guidelines are analyzed in the Master Evaluative Table in terms of their support for the evaluative criteria. Some of the criteria, as discussed below, are supported strongly, others much less so. In general, the findings are consistent with the evaluations conducted in Chapter 4 and summarized above concerning the specific process criteria; this is discussed later in this chapter in terms of linkages among the three tiers of criteria.

#### A. Culturally appropriate development

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There is generally strong support for this criterion in the guidelines, although it is never referred to specifically. "Culturally appropriate development" is addressed indirectly under a number of elements in the guidelines. First, it is supported indirectly in "Principal Assessment Criteria", which emphasizes the equity and sustainability of the project. It is supported moderately in guideline #113, "rights of communities to determine their future", which implies cultural appropriateness of development; #302, "guiding principles for describing environment", which addresses the intercultural aspect; and #385, "community perceptions of project", in which the proponent is required to integrate multiple perspectives. There is strong support in #126, "local knowledge; conceptual and symbolic systems", in which there is explicit recognition of the intercultural challenge of EA; and this is repeated in #127, "cultural relativity of values; diversity". In #128 "local stakeholder consultation", the importance of local values is emphasized, once again suggesting an emphasis on culturally appropriate development. Guideline #304, "multicultural definition of environment" is strongly supportive since it is an explicit requirement for an intercultural approach to EA. Finally, support is very strong in #567, "respect for culture" - this is a key integrative section with pluralism emphasized strongly, a synthesis of native concerns. In summary, a number of guidelines direct the proponent to integrate the values and cultural perspective of local people into its impact studies, thus amounting to a vision of culturally appropriate development. The term itself is avoided, but the guidelines place a strong onus on the proponent to demonstrate that its project would not be culturally inappropriate.

#### B. Appropriate scale, pace and timing of development

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Although the guidelines emphasize the equity and sustainability of the project strongly, they are relatively silent with respect to "appropriate scale, pace and timing of development". It may be assumed that the latter criterion is addressed under the former, overarching criteria - that in practice it would be impossible to have a project that was sustainable and equitable but which was inappropriate in terms of scale, pace and timing. On the other hand, it is argued that greater specificity in the guidelines would have been valuable in terms of giving the proponent more tangible direction in designing and operationalizing a sustainable and equitable project - one that promotes viable interdependence. There is minimal to moderate support for this criterion in the guidelines, however. A rare example of indirect, moderate support is found in #212, "inequity of costs and benefits", which implies a requirement for the proponent to address the scale, pace and timing of the project in terms of the capturing of benefits or the avoidance of a "boom and bust" phenomenon. Finally, in the same vein, the guidelines which address mitigation also deal with the criterion indirectly since they contain stipulations regarding work scheduling and thus pace and timing. In no section, however, is the question of the scale of the project or any of its components addressed explicitly.

#### C. Equitable development

"Equity" was distinguished as a both a process-oriented and substantive criterion earlier in the evaluative framework. An equitable process is one which is conducive to equitable outcomes. To the extent that equity is an outcome, it refers to the distribution of costs, benefits and risks of development over time, once a project is built and implemented. The EIS guidelines are equity-focused and stress that the outcome of Great Whale must be equitable to all stakeholders. In doing so, the guidelines go much further in this regard than is the case in most other EA processes. The "principal assessment criteria" of the guidelines cast the issue in terms of equity, and the theme is prominent throughout, with very strong support in a number of instances. These include #212, "inequity of costs and



benefits"; and #552, "exploitation of resources", in which the proponent is directed to address the indirect and far-reaching economic impacts. There is very strong support in #567, "respect for culture", a key integrative section in which the proponent is required once again to consider the equity of the project with respect to a range of native stakeholder concerns, including lifestyle, language, heritage, and sense of belonging to territory. In summary, the theme of equity permeates most sections of the guidelines, and can be termed the overarching requirement.

## D. Ecologically sustainable development

There is generally strong support in the guidelines for ecologically sustainable development. As in the case of equity, the guidelines go further than is the norm in EA with respect to including specific and rigorous requirements of the proponent to address sustainability. The "principal assessment criteria" cast the issue in terms of sustainability and the onus is on the proponent to defend the project in those terms. The Brundtland definition of sustainable development is included and elaborated, resulting in explicit instructions to the proponent. Reference to ecological sustainability continues throughout the guidelines. For example, #121, "ecosystem integrity", includes a broad, integrative definition of ecosystem, including human and animal health; access to the territory; availability and quality of resources; maintenance of social cohesion at local, regional and national levels; and respect for values. Rather than merely requiring the proponent to demonstrate that its project is sustainable, the guidelines provide a conceptual framework for doing so, and are thus very supportive of the criterion of "ecologically sustainable development".

#### E. Development that promotes community self-reliance

The goal of "self-reliance" is implied in the guidelines, but not addressed explicitly. It is not developed as a discrete theme, although it is supported indirectly under others, namely sustainability, equity and culturally appropriate development. It is argued that specific inclusion of this criterion would have been helpful in developing and strengthening a framework for viable interdependence.

# 5.1.5 Support for general process-oriented criteria in EIS guidelines

#### F. Equity and respect

As argued above, the guidelines give overarching emphasis to the question of equity, both in terms of outcome and process. The closely-related theme of "respect" is also emphasized strongly. Key guidelines include #126, "local knowledge; conceptual and symbolic systems"; #127, "cultural relativity of values; diversity"; #128 "local stakeholder consultation"; and #304 "multicultural definition of environment". Also notable are guidelines #306 "components valued by each community"; and #567, "respect for culture".

## G. Transparency and mutual understanding

There is very strong support in the guidelines for the criterion of "transparency and mutual understanding". This was a prominent theme in the scoping process and is highlighted in #302, "guiding principles for describing environment"; #304, "multicultural definition of environment"; and #141, "translation of EIS; accessibility of EIS format". Taken together, these guidelines require the proponent to pay particular attention to preparing an EIS that is transparent and meaningful to all stakeholders.

### H. Non-deterministic

There is no explicit reference to a "non-deterministic" process in the guidelines, although the proponent was reminded throughout the scoping process to maintain an open attitude with respect to the outcome of its studies. This, however, is a standard expectation in EA. The guidelines are silent with respect to this criterion, but it is addressed somewhat in #306, "components valued by each community"; #308, "geographic boundaries"; both of which require the proponent to consider alternative frames of reference in its studies. At best, however, there is only moderate support in

the guidelines for this criterion, and in practice it appears to overlap considerably with the next criterion, "displacements of power/influence".

# L Displacements of power/influence

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Unlike the case of the previous criterion, there is substantial support in guidelines for "displacements of power/influence". The proponent is frequently directed to consider alternatives, and is steered in certain directions that would change existing power relationships. The guidelines, in effect, are somewhat subversive since, taken together, they challenge many of the conventional assumptions of EIS preparation. Most notable among the guidelines are #126, "local knowledge; conceptual and symbolic systems"; #212, "inequity of costs and benefits"; #304, "multicultural definition of environment"; and #s305/306, "valued ecosystem components/components valued by each community". The fundamental shift implied by these guidelines is a requirement to go beyond standard stakeholder consultation and to recognize and address alternative world views. This constitutes a challenge to the existing politics of knowledge and information in EA - the proponent becomes one of many knowledge holders rather than the main one.

# J. Transformative

Similar to the preceding analysis, there is substantial support in the guidelines for the criterion of a "transformative" process. Once again, the proponent is steered toward preparing the EIS in new ways, by using new approaches. Foremost among the supporting criteria are #111, "principal assessment criteria"; #126, local knowledge; conceptual and symbolic systems"; #304, "multicultural definition of environment"; #305. "valued ecosystem components"; #504, "five fundamental themes to be evaluated". Support is also found in #511, "cultural aspects of diet"; and #559, "social organization", both of which introduce new considerations that require the proponent to go well beyond a standard social impact assessment approach. The transformative aspect of these guidelines is their holistic nature, since they propose issue linkages (e.g. diet and spirituality; access to the territory and social organization). A more radical and holistic - and thus

transformative - EIS is encouraged through requirements which stretch the boundaries of impact studies.

## K. Unlocks creative forces in community

The guidelines reflect overall moderate support for the criterion of "unlocks creative forces in community", since there is no explicit requirement for the proponent in this regard. The proponent is directed to seek out and integrate community input, which might well stimulate creativity, but this is a standard requirement. There is strong support in #126, "local knowledge; conceptual and symbolic systems", which would facilitate a vigorous consultative process. There is moderate support in #380, "land use", which requires the proponent to investigate the possible solutions and alternatives under consideration by native people in the event of modified access to the territory. This guideline might well have the effect of stimulating creative forces in the community, since it requires stakeholders to articulate alternatives.

#### 5.1.6 Summary

In this section the level of support in the guidelines for the substantive and general process-oriented criteria has been analyzed. As discussed earlier, these categories of evaluative criteria are not the principal focus of analysis; the specific process-oriented criteria in Chapter 4 comprise the main thrust of the evaluation. The main purpose of evaluating support for the substantive and general process-oriented criteria is to compare them to the findings in Chapter 4 in order to better understand the potential linkages and interrelationships between the levels and categories of criteria. The understanding derived from this experimentation will then be used to revisit and refine the evaluative framework, primarily in terms of modifying criteria and adjusting categories. The framework is discussed later in this chapter; the next section focuses on linkages among the criteria.

# 5.2 LINKAGES AMONG EVALUATIVE CRITERIA

In this section linkages are explored among the three categories of criteria. The following scale is used to describe the strength of linkages among the evaluative criteria:

- ••= moderate linkage
- •••= strong linkage

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- ••••• = very strong linkage
- N/A = not applicable
- X = lost opportunity

The level of support for each criterion in the EIS guidelines and, more broadly, in the scoping process itself, was analyzed earlier. In the present analysis, judgment is used, on the basis of the preceding analyses, to evaluate the linkages, or the degree to which one criterion supports another.

The linkages among the specific and general process-oriented criteria, as discussed below, are relatively solid, since the two categories are different levels of the same process - they are inherently connected. In the case of linkages among process-oriented and substantive criteria, the links must be qualified as more theoretical or "potential" since any definitive relationships between process and outcome could be determined only through a thorough study of the implementation phase of the Great Whale project.

The discussion of linkages among criteria begins with the process-oriented criteria. Table XIV (p. 242) summarizes the linkages and an analysis follows.



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	General process-oriented criteria					
Specific process- oriented criteria	F. Equity & Respect	G. Trans- parency & mutual under- standing	H. Non- deter- ministic	I. Displace- ments of Power/ Influence	J. Transfor- mative	K. Unlocks creative forces in community
L. Appropriate balance of formality/ informality	•• Strong	• Moderate	• Moderate	• Moderate	 N/A	• Moderate
M. Receptive to multiple knowledge systems and patterns of expression	•• Strong	• Moderate	• Moderate	•• Strong	• Moderate	•• Strong
N. Interpretive capacity/function	• Moderate	••• V. Strong	• Moderate	• Moderate	•• Strong	• Moderate
O. Facilitates inter- paradigmatic dialogue	 N/A	X Lost opp.	 N/A	X Lost opp.	X Lost opp.	• Moderate
P. Problem-setting function	• Moderate	• Moderate	••• V. Strong	••• V. Strong	•• Strong	• Moderate

# Discussion of linkages between process-oriented criteria

Table XIV (p. 242) suggests a number of moderate to strong linkages among the specific and general process-oriented criteria. In a few cases the linkages are very strong. In probing the linkages the key analytical question is whether or not the performance of the case study with respect to the specific process-oriented evaluative criteria also supported the more general criteria. For example, it is argued that the strong performance with respect to "appropriate balance of formality and informality" contributed in turn to supporting "equity and respect". As discussed in section 4.2 of Chapter 4, adjustments and adaptations made by the scoping panels in northern hearings were made primarily in a spirit of equity and respect for local circumstances and intercultural considerations. Procedural adaptations were thus made by the panels in order to promote equity.

As discussed in section 4.2, the time constraints of a formal scoping process make it inherently maladapted to the rhythms of northern communities.

Despite these constraints, the Great Whale scoping panels were fairly successful in providing an appropriately informal atmosphere for northern intervenors. In this regard the scoping hearings fared considerably better, for example, than cases described by Gagnon et al, (1993) which were dominated by the proponent and provided few opportunities for community control. The informality of the Great Whale northern hearings was therefore somewhat successful in displacing power relationships and patterns of influence within the process. As discussed earlier, more advance work by the Great Whale panels would have prepared communities better - hence the moderate support for the criterion of "unlocking creative forces in community".

The intent of the more specific evaluative criteria is to provide a pathway or tool with which EA practitioners can pursue more general process objectives. In this regard, the linkage between "appropriate balance of formality and informality" and "equity and respect" appears to be strong and the former appears to be a useful tool or pathway. The linkage to other general process-oriented criteria appears to be less strong, however. The strong performance of the case study with respect to maintaining an "appropriate balance of formality and informality" was only moderately supportive of "transparency and mutual understanding"; "nondeterministic"; "displacements of power/influence"; and "unlocks creative forces in community". The criterion appears to have no connection to the general process-oriented criterion of "transformative". The test of a specific process-oriented criterion, however, is not so much the number of linkages it has with the general process-oriented criteria, but rather the strength of the linkages. It is therefore not problematic that only one strong linkage exists in this case. For analytical purposes, it is appropriate to focus on the strong or very strong linkages, which, it is argued, constitute the potential pathways from process to substance. At this stage in the experimental evaluation, these strong linkages are the most promising avenues in the pursuit of viable interdependence through scoping and EA.

The performance of the case study with respect to the criterion of "receptive to multiple knowledge systems and patterns of expression" results in three strong linkages - "equity and respect", "displacements of power/influence", and "unlocks creative forces in community" - while linkages to the other general process-oriented criteria are moderate. As discussed in section 4.3, the scoping process was receptive to both TEK and multiple patterns of expression. Although better advance work would have enhanced the ability of the panels to deal with the diverse input of intervenors, the scoping process proved successful in valuing alternative knowledge bases and therefore in promoting intercultural equity and respect. The receptiveness of the process contributed to displacements of existing power relationships by according equal weight to historically devalued knowledge systems. Finally, receptiveness to TEK and local patterns of expression stimulated a degree of creativity among northern intervenors, many of whom seized the opportunity to share anecdotes and link them to impact assessment issues.

As discussed in section 4.4, the case study performed reasonably well with respect to "interpretive capacity/function", although an interpretive capacity was not consciously built into the panels and insufficient time was taken prior to the hearings for panelists to familiarize themselves with interpretive challenges. While the panels and staff were innovative in interpreting scoping input, some of the power of the oral testimony was lost due to limits of interpretation. One strong linkage can be made to the general process-oriented criterion of "transformative" since the interpretation that was performed contributed to the Great Whale case's ground-breaking intercultural EIS guidelines. Likewise, a very strong linkage can be made to "transparency and mutual understanding" since the process of interpreting non-guideline specific input, while not entirely successful, was an important step in addressing intercultural barriers.

As discussed in section 4.5, the performance of the case study with respect to "facilitates interparadigmatic dialogue" was generally weak. No strong linkages to general process-oriented criteria can be made. Opportunities were lost to contribute to "transparency and mutual understanding", "displacements of power and influence" and "transformative". This opportunity - to conduct a more dynamic form of scoping that seeks to integrate competing paradigms - should be given explicit attention in future cases.

The final specific process-oriented criterion, "problem setting function", can be linked strongly to "transformative", and very strongly to "nondeterministic" and "displacements of power and influence". As discussed in section 4.6, one effect of the Great Whale scoping hearings, as captured in the EIS guidelings, is to direct the proponent to address an expanded richer

the EIS guidelines, is to direct the proponent to address an expanded, richer, more pluralistic problem definition. This effect and requirement is strongly supportive of a non-deterministic process in which the outcome is "up for grabs". The possibility of transformation exists with a reformulated problem, and a transformation will take place if the problem definition is shared and reflected in the impact assessment. Further downstream, the possibility of transformation is thus enhanced in terms of changed terms and forms of development, or more viable interdependence.

#### Summary

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The analysis performed above suggests strong linkages and pathways between specific and general process-oriented criteria in six instances, and very strong linkages in three cases. Four of the five specific processoriented criteria have at least one strong linkage; the exception is the criterion of "facilitates interparadigmatic dialogue", with which the case study performed relatively poorly. All of the general process-oriented criteria are linked strongly to at least one specific counterpart. These strong linkages confirm that the specific evaluative criteria are useful starting points in assessing the performance of a scoping process with respect to more general criteria. While there is no definitive process pathway to "equity and respect", for example, it is reasonable to conclude that receptiveness to multiple patterns of expression can enhance the former, and is a promising aspect for future case studies. It is clear from the case study that devoting explicit attention to an interpretive capacity in EA panels can enhance transparency and mutual understanding in an intercultural EA process. Likewise, it is clear that including a problemsetting function can have benefits in terms of challenging relationships that are characteristic of non-viable interdependence. Overall, the number and strength of the linkages, while none are definitive, support the principle of proceeding from specificity to generality and ultimately to substance. In

other words, it is useful to focus on achievable objectives such as being receptive to TEK and multiple patterns of expression as a step toward a more general process objective such as equity. In summary, this section has analyzed linkages among process-oriented criteria. Linkages among process-oriented and substantive criteria are discussed next, and the overall evaluative framework is discussed later in this chapter. Table XV (p. 246) presents the potential linkages among specific process-oriented and substantive criteria.

	Substantive Criteria				
Specific process- oriented criteria	A. Culturally appropriate development	B. Appropriate scale, timing & pace of development	C. Equitable development	D. Ecologically sustainable development	E. Promotes community self-reliance
L. Appropriate balance of formality/ informality	 N/A	 N/a	• (Potential) Moderate	 N/A	 N/A
M. Receptive to multiple knowledge systems and patterns of expression	•• (Potential) Strong	• (Potential) Moderate	•• (Potential) Strong	• (Potential) Moderate	• (Potential) Moderate
N. Interpretive capacity/function	• •(Potential) Strong	• (Potential) Moderate	••(Potential) Strong	• (Potential) Moderate	• (Potential) Moderate
O. Facilitates inter- paradigmatic dialogue	X Lost Oppor.	X Lost Oppor.	X Lost Oppor.	X Lost Oppor.	X Lost. Oppor.
P. Problem-setting function	••(Potential) Strong	•(Potential) Moderate	••(Potential) Strong	••(Potential) Strong	• (Potential) Moderate

Table XV: Potential linkages between Specific Process-oriented Criteria and Substantive Criteria

# Discussion of linkages between specific process-oriented and substantive criteria

The case study suggests no "very strong" potential linkages among the specific process-oriented and substantive criteria; seven "strong" potential linkages; and nine "moderate" potential linkages. The linkages must be termed "potential" since the case study did not proceed to an implementation phase of development in which substantive outcomes could be compared to the scoping process. Maintaining an "appropriate

balance of formality and informality", in and of itself does not provide a direct pathway to any of the substantive criteria, with the exception of "equitable development" and in this case the potential is only moderate. On the other hand, the case study's receptiveness to TEK and multiple patterns of expression has strong potential to support "equitable development" and culturally appropriate development" - indeed, it appears to be a fundamental step or pathway. Likewise, the criterion of "interpretive capacity" has strong potential to support the same two criteria of culturally appropriate and equitable development, since progress was made in the scoping hearings in terms of gathering and then interpreting an extensive body of local knowledge. Therefore, in this regard, the process addressed an historical imbalance in which the absence of opportunity for local input had reinforced patterns of inequitable and culturally inappropriate development. Once the other hand, the weak performance of the case study with respect to facilitating interparadigmatic dialogue represents a lost opportunity to support the substantive criteria. Finally, as indicated in section 4.6, the problem-setting function of the scoping process has strong potential to support three substantive criteria: culturally appropriate, equitable and ecologically sustainable development.

The analysis suggests strong potential linkages to three of the substantive criteria - culturally appropriate, equitable, and ecologically sustainable development. No strong potential linkages appear to exist with respect to the remaining two substantive criteria - appropriate scale, pace and timing, and community self-reliance. This pattern is consistent with the analysis conducted earlier, in Table XII, which indicated relatively weak support in the EIS guidelines for these two substantive criteria. In fact, taken together, all of the analyses performed thus far point to a similar pattern, in which the case study was successful in supporting certain of the primary and secondary evaluative criteria, and less successful in the case of others. The analysis suggests that attention to detail or specificity is important in a scoping process - for example, interparadigmatic dialogue will not take place automatically unless it is facilitated; and the value of community self-reliance will not be supported in a process unless it is addressed explicitly. Likewise, a process will tend to be more equitable generally if attention is

paid to equity of specific aspects - e.g. the recognition and validation of traditional knowledge.

In this section the linkages between specific process-oriented and substantive criteria have been explored. The potential linkages among these two categories of criteria take on greater significance when compared to those among the general process-oriented and substantive criteria (see Table XVI on p. 248) The general process-oriented criteria are more directly linked to substance and are therefore important intermediate pathways.

Table XVI: Potential linkages between General Process-oriented Criteria and Substantive Criteria

	Substantive Criteria				
General process- oriented criteria	A. Culturally appropriate development	B. Appropriate scale, timing & pace of development	C. Equitable development	D. Ecologically sustainable development	E. Promotes community self-reliance
F. Equity and respect	•••(Potentl)	•• (Potential)	••• (Potenti)	• (Potential)	• (Potentia)
	V. Strong	Strong	V. Strong	Moderate	Moderate
G. Transparency and mutual understanding	• (Potential) Moderate	• (Potential) Moderate	•• (Potential) Strong	• (Potential) Moderate	• (Potential) Moderate
H. Non-			• (Potential)		
deterministic	N/A	N/A	Moderate	N/A	N/A
I. Displacement of power/influence	• (Potential)	• (Potential)	•••(Potenti)	• (Potential)	• (Potential)
	Moderate	Moderate	V. Strong	Moderate	Moderate
J. Transformative	••(Potential)	•(Potential)	••(Potential)	••(Potential)	• (Potential)
	Strong	Moderate	Strong	Strong	Moderate
K. Unlocks creative	••• (Potenti)	•• (Potential)	•• (Potential)	•• (Potential)	•••(Potenti)
forces in community	V. Strong	Strong	Strong	Strong	V. Strong

# Discussion: linkages between general process-oriented and substantive criteria

The case study suggests three "very strong" potential linkages among the general process-oriented and substantive criteria; five "strong" potential linkages; and twelve "moderate" potential linkages. Once again, as discussed above, the linkages must be termed "potential". The most

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promising potential linkages are between "equity and respect" within the process and "equitable development" in terms of a substantive outcome. While this may seem tautological, it is argued that the only way to pursue equitable outcomes in EA is to pay close attention to the equity of the process, as measured through performance with respect to specific criteria. The general process-oriented criteria of "equity and respect" is therefore an important intermediate criterion that helps summarize aspects of the scoping process and is indicative of the potential of certain outcomes. The strong performance of the case study with respect to "displacements of power and influence" would likewise appear to have very strong potential to support the outcome of equitable development. It is argued that the former is a critical precondition of an equitable outcome, since the existing power relationships had in practice proven to be the basis of non-viable interdependence.

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The strong performance of the scoping process in terms of being "transformative" would appear to be strongly supportive of the potential outcomes of culturally appropriate, equitable and ecologically sustainable development. This potential linkage began at the level of specific criteria with the strong interpretive capacity and problem-setting function of the scoping process. By devising ways to interpret and include previously devalued local knowledge and concerns, and by expanding the problem definition to address alternative values and perceptions, the scoping panels enhanced the possibility of a transformative EA process. If this potential were realized throughout the remainder of the EA process, the effect would be to go well beyond a "rationality ritual". The problem reformulation that took place in the scoping process revolved around the equity, sustainability and cultural appropriateness of the Great Whale project. Likewise, the interpretation of non-guideline specific scoping input had the effect of drawing from stories and metaphors a similar set of overarching themes i.e. equity, sustainability and cultural appropriateness. In summary, as argued through this potential linkage, the challenge of pursuing a substantive outcome begins at the specific process level in terms of new approaches to scoping.

Four of the five general process-oriented criteria have at least strong potential linkages to at least one substantive criterion. The exception is "non-deterministic", which appears to be unrelated to any of the substantive criteria. It is only moderately linked to "equitable development", suggesting that it is of marginal importance as an intermediate evaluative criterion. With respect to the substantive criteria, four of the five are linked strongly to general process-oriented criteria, with the exception being "promotes community self-reliance", which is characterized by only moderate potential linkages. This pattern is consistent with the other analyses conducted thus far, which indicate that this substantive criterion, along with "appropriate scale, pace and timing of development", was given relatively little attention in the scoping process. All of the analyses indicate that the focus of the process, in terms of substantive outcomes, was on the equity, sustainability and cultural appropriateness of the proposed project.

#### Summary

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In this section the actual and potential linkages among process-oriented and substantive criteria have been analyzed. The value of the analysis is twofold: it is helpful in drawing conclusions about the scoping process itself, and it is useful in refining the evaluative framework. Both are discussed in the next section, in which conclusions regarding the thesis and the case study are drawn and recommendations for future study are proposed.

#### 5.3 CONCLUSIONS AND RECOMMENDATIONS

In the previous four chapters, the goals and objectives described in section 1.3 have been pursued and achieved. The theoretical questions that formed the basis of the problem statement and goals and objectives have been clarified, expanded and in some cases resolved. First, the goal of a better understanding of the potential of EA and scoping to support viable interdependence has been accomplished. The case study and analyses have yielded indications regarding the potential and limits of EA and scoping in supporting viable interdependence, and have shed light on important principles, criteria and approaches, as well as pre-conditions.

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The objectives achieved include the development and testing of a conceptual and evaluative framework, including analytical criteria and tools; the description and analysis of the case study; the analysis of the case study through five specific process-oriented criteria; and the drawing out of lessons regarding EA process development. The concept of viable interdependence has been proposed, elaborated and tested, and its links to sustainability and equity have been explored. In light of the case study and analysis, the specific process-oriented criteria have been shown to be relevant and valuable, as have related criteria drawn from theorists and practitioners (e.g. Gagnon et al, 1993; Vincent, 1994; Gariépy, 1991; Sadler, 1990; Judge, 1991; Gardner, 1989; Keith & Simon, 1987; Jacobs, 1981, 1985; Parenteau, 1988; Mailhot, 1993; Norgaard, 1992; Makivik Corporation, 1992; Inuit Circumpolar Commission, 1992). The analysis has indicated some promising interrelationships among process-oriented steps and substantive outcomes. Finally, the analysis confirmed that the Great Whale scoping process is a valuable case study - one that warrants further exploration from other perspectives and angles.

Overall, the research conducted in this thesis has produced a better understanding of the challenge of intercultural EA and scoping, some valuable lessons from Great Whale, and some prescriptive recommendations for scoping in pursuit of viable interdependence, which are further discussed below. As stated in the introduction of the thesis, the nature of the evaluation is experimental and therefore limited in scope. The primary objective was to develop and test the framework, while deriving general indications regarding the potential role of EA in support of viable interdependence. This has been accomplished. The study method employed was therefore appropriate given the nature of the experiment conducted.

This section has presented an overview of the accomplishments and conclusions of the thesis. Next, a more detailed discussion of the main

conclusions of the thesis is presented, beginning with the evaluative framework and criteria.

## 5.3.1 The evaluative framework and criteria

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As discussed above, the evaluative framework is experimental and requires further refinement if it is to be applied in future case studies. The analysis conducted earlier in this chapter indicates that some of the framework linkages and pathways are solid, while others are more tentative. At this stage, the most solid linkages remain at the process level. As future research goes further in addressing the interrelationship of EA/scoping, sustainability, and intercultural development, a greater understanding of the linkages between process-oriented criteria and substantive outcomes will emerge. In the present case, it is only possible to make firm linkages at the process level - it is not possible to conclude anything about outcomes except in terms of potential.

Linkages to substantive outcomes are difficult to establish, first, because of the inherent difficulty of linking process to substance or outcomes, and also due to the time horizon needed to conduct longitudinal study. In the case of Great Whale, since the EA process ended prematurely with the uncertainty surrounding the project application, the substantive outcomes did not occur. It was nevertheless possible in this thesis to venture an analysis of the theoretical imprint of the scoping process in terms of the prospect of viable interdependence. The analyses support the argument that the path toward viable interdependence must start with principles that will lead to practice - with relatively modest, specific process criteria that will eventually lead to substantive progress. Although commitment to process-oriented criteria will not necessarily support substance, the analyses indicate that the prospect of given outcomes are enhanced through the former. The principle of maintaining a process orientation is strongly supported. Indeed, the analysis indicates that the specific process-oriented criteria are critical considerations in intercultural scoping. It is therefore reasonable to claim that progress was made toward clarifying important process-oriented steps in the pursuit of viable interdependence through



scoping and EA. Overall, the evaluative framework can be considered a useful starting point for future studies of this nature.

As discussed earlier, the performance of the case study with respect to the evaluative criteria suggests that important steps were taken toward viable interdependence. The criteria of equitable and culturally appropriate development were strongly supported in the scoping process. Equitable development and intercultural literacy in EA were, in fact, the two overarching themes of the process. The Great Whale scoping process revealed that EA and scoping can be innovative, transformative, and strongly supportive of more equitable outcomes. The Great Whale scoping process was not a rationality ritual, and the key innovative and transformative elements of the process have been described at length in this thesis.

## 5.3.2 EA and viable interdependence

The case study confirms that the potential of EA and scoping is not achieved automatically, but rather it needs to be brought out through deliberate experimentation and adaptation. The prospect of making EA effective in an intercultural setting is therefore largely within the control of the EA panels and other practitioners. By virtue of its very nature as primarily a western scientific framework, environmental assessment verges on being dysfunctional in informal northern settings, and its practioners are challenged with keeping it functional and relevant. The case study demonstrated the importance of advance planning and preparatory work in communities where a scoping process is about to unfold, and confirmed that attention to details can be very important. Opportunities can be missed as a result of inadequate preparation; the lack of an interpretive capacity in the Great Whale scoping process is an example.

Another key shortcoming of the scoping process - the lack of dialogue between the proponent and intervenors, and particularly interparadigmatic communication - could be addressed by making the public hearings more dynamic and interactive. The current model of scoping, which is more or

less static, should be reshaped into a more flexible and agile process that can adapt to the dynamics of the hearings and seize opportunities as they arise. Scoping adds greater value to an EA process when it involves or facilitates dialogue. It is possible to achieve more dynamism without sacrificing the structure and formality that are required of scoping as an "issue funnel". Finally, the case study confirmed the value of skilled chairs and panelists, who play important facilitation roles. In light of this, it is argued that the basis on which panelists are selected needs to be reconsidered, with the selection criteria weighted less heavily on their technical competence and more heavily on their facilitation and interpretation skills.

The case study demonstrated that scoping has significant potential to support viable interdependence, particularly if EA practitioners are proactive and attentive to process-oriented criteria. More broadly, the thesis has clarified somewhat the potential of EA in intercultural situations and has shed light on some of its limitations. It is not possible to conclude definitively whether or not EA can be functional in all intercultural settings, since this appears to depend upon a number of case-specific factors. Although the Great Whale case ended prematurely, it can be termed an incremental movement toward viable interdependence between these northern and southern parties, since it set an important precedent in terms of intercultural EA requirements. As argued earlier, the EIS Guidelines amount to a framework for intercultural EA; they require the proponent to become literate in an epistemology, language and paradigm beyond its own. The progress toward viable interdependence achieved through the Great Whale scoping process is captured in terms of changes in attitudes; transfer of knowledge; modest movement toward the bridging of paradigms; shifting of power relationships; new flows of information; and the raising of intercultural literacy. These are all important preconditions of viable interdependence. The imprint left by the scoping process is thus a modified relationship and new expectations between the parties. While conflicting modes of development remain within the Cree and Inuit territories, it is argued that progress toward integration was made through the Great Whale scoping process.

While not resolving the conflict over the Great Whale project, the scoping process succeeded in better articulating the issues and the range of viewpoints, and fostered mutual learning. The EIS guidelines established new standards in terms of what would be required of the impact study process and product, particularly in the need for more enlightened consultation and justification of the project in intercultural terms. The scoping process was supportive of stakeholder-based planning. If, indeed, the terms on which development takes place are as important as the substance of a project, the process was valuable in setting out these terms from the stakeholders' perspectives.

## 5.3.3 Process development for EA

As argued throughout the thesis, there was an exceptionally high degree of innovation in the Great Whale scoping process. The case represents more than an incremental movement in terms of process development for EA. Taken together, the innovative elements of the process, as described in Chapters 3-4, amount to a number of important lessons for intercultural EA, and should be noted by theorists and practitioners. Of particular interest are the EIS guidelines themselves, as well as the admirable attempts made to give equal weight to the various legitimate inputs into the process that came from a plurality of knowledge bases, including the considerable amount of non-guideline specific input.

The thesis shed light on the theory and practice of scoping by making it the focus of the case study. Few studies have done this and relatively little is known about the potential of scoping, particularly with respect to the challenge of intercultural EA. On the whole, most evaluations of EA focus on other phases, and relatively little of the overall literature on EA deals with scoping. The thesis therefore made a contribution by concentrating on an esoteric but important area of environmental assessment.

# 5.3.4 The interrelationship of sustainable development and viable interdependence

The thesis made progress made toward defining viable interdependence and its criteria. The case study and analyses clarified somewhat the interrelationship of sustainable development and viable interdependence. Both are complex, elusive, long-term prospects, and both are normative ethical principles. Viable interdependence appears to be a more immediately measurable goal than sustainable development because it is process-oriented. Another key difference between the two concepts is the latter's more explicit focus on equity. Indeed, viable interdependence is an equity-based goal. Sustainable development (or sustainability) frameworks, on the other hand, have tended to focus on biophysical criteria and indicators, with varying degrees of reference to equity.

It is argued that sustainable development remains an overarching, unifying, substance-oriented framework, and that viable interdependence is a promising process-oriented framework that is more specialized and suited specifically to addressing intercultural development issues. Analysis of the Great Whale scoping process indicates that it was considerably more equityfocused than sustainability-focused. The goal of viable interdependence therefore had considerable currency in the Great Whale case study, and it merits further consideration as a complementary framework to sustainable development.

### 5.3.5 Recommendations

The research and case study conducted in this thesis point to the need for further exploration. It is recommended that future research focus on further development of the concept of viable interdependence as a means to pursue more sustainable and equitable forms of intercultural development; and further experimentation with and refinement of the evaluative framework. With respect to EA, it is recommended that the lessons learned from the Great Whale scoping process be incorporated into intercultural development cases, and that greater attention be given to those criteria which were not applied the present case - i.e. a more dynamic approach to scoping is warranted in order to facilitate interparadigmatic



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dialogue. It is recommended that EA and scoping practitioners continue to pursue experimental approaches in intercultural settings generally, and in particular that they build on the lessons of the Great Whale scoping process.

With respect to the Great Whale EA case itself, a follow-up study is recommended to determine the effect of the Great Whale scoping exercise in terms of process development for EA in order to determine whether or not the lessons are reflected in subsequent processes. It is recommended that a comprehensive evaluation of the Great Whale scoping process be undertaken, since the more limited evaluation in this thesis demonstrated that the case study was ground-breaking in a number of regards. Finally, in the event that the Great Whale project proceeds, it is recommended that the EA panels are vigilant in their follow-up and scrutiny of the proponent to ensure that the spirit, intent, and substance of the scoping process and EIS guidelines are followed in consultation, impact studies, project design and implementation.

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## APPENDIX A: INTERVENTIONS REPRESENTATIVE OF COMPETING PARADIGMS

Note: No quotes from the proponent appear, since the proponent was not actively involved in any dialogue.

#### 1. Non-native, pro-development paradigm

"Selon l'A.Q.M.E., l'efficacité énergétique et le développment des ressources hydroliques du nord québécois ne sont pas deux (2) orientations inconciliables dans la mesure, toutefois, ou les nouveaux projets d'équipement s'inscrivent dans une vision globale visant une utilisation rationelle de la ressources, c'est a dire pour la maitrise de l'énergie." (M. Alain Ste-Marie, l'Association Québécoise pour la Maitrise de l'Energie, Montreal, March 20, Vol. 8, pp. 137-138)

"We are not impressed by the arguments according to which economic interests of Quebec would be better served with other development models.....In Quebec today, we find an important majority of the population which is convinced that it is a good opportunity to develop James Bay, but this democratic vision might hurt cultural sensitivity for the Crees.....Therefore, let us tell you that some people sell dreams, and would tell you that it is possible to create a utopic would, where economical growth is not necessary anymore. We would like to believe these people, but if they denounce everything and question everything, it is not very easy for them to suggest concrete solutions.....This is why we are asking you, ladies and gentlemen, to stay objective, impartial, and to abide by the Convention and the scientific information." (Richard Le Hir, Association of Manufacturers of Quebec, Montreal, March 16, Vol. 1, pp. 114-120)

"Certains pourront discuter durant des mois, des années ou meme des décennies sur le bien-fondé "d'ouvrir" des territoires vierges, de tracer des routes, de batir des ponts, de créer des aéroports dans des zones de pays jusqu'alors quasi inexplorées. Il est de nos concitoyens pour penser que, ce faisant, on bouscule de facon irresponsable l'ordre des choses, que l'on met en péril une espece d'équilibre naturel préexistant a l'homme, et

immuable. J'ai toujours respecté ces opinions mais, quant a moi, je pense que rien n'existe qui ne puisse et ne doive changer." (Robert Boyd, Montreal, March 19, Vol 7, p. 78)

#### 2. Northern/Native conservationist paradigm

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"The Creator created the world in six days, and saw it was beautiful. And we see it that way, too, because we think about it. Someone who doesn't think about very much about it will want to destroy it, will want to change it. And this is why our opposition is based on that belief also." (Andrew Natachequan, Cree, Kuujjuaraapik-Whapmagoostui, March 10, Vol. 8, p. 10)

"This is where our grandfathers used to hunt. This is where our forefathers hunted, and I see this the same way they did. But I don't think the white people know how to look at these, because there are a lot of grave sites in that area, and perhaps there is a whole bunch of grave sites in the area that was the area that he is pointing on the map. The white man doesn't care about living human beings. Why should they care about dead people and probably the same thing will happen in the Great Whale area." (Mr. Isaiah Dixon, Cree Elder, Montreal, March 17, Vol 3, p. 44)

"The religion was brought to us by the white people, and their philosophies have been imposed upon us. They have no concern for our own philosophies, and how we survive." (p. 32)

"The teaching has to be registered in the mind. And this is the difference between the two ways of teaching. One you write on paper; one you keep in your head. When white people come here to do studies regarding the impacts on the land, they cannot really do a good study because they never lived on the land. They haven't experienced life on the land." (p. 41)

"And only by working in cooperation with one another can we have a better understanding of each other's concerns. But if we don't really establish a good dialogue, then we are going to run into difficulties. We have different ways of approaching things. As an example, the Inuit collectively decided to negotiate with the developer. We are of the opposite



opinion." (Robbie Dick, Cree leader, Kuujjuaraapik-Whapmagoostui, March 10, Vol. 8, pp. 44-45)

"You can see where the water was meant to be. You can look out. You see the bay. That's where water was meant to be. But if you look inland, you don't see big bodies of water. It was never meant that there should be big lakes created." (Philip Natachequan, Cree, Kuujjuaraapik-Whapmagoostui, March 10, Vol 9, p. 47)

"There is no law that was ever created to tell others, other cultures, to go see other cultures, and destroy their land for their own benefit. Only specific groups decide on their own to destroy other culture's property.....Only the Creator that created the land has the authority to be able to destroy what it has created." (Sandy Masty, Cree elder, Kuujjuaraapik-Whapmagoostui, March 11, Vol. 13, p. 10)

"To me, when an elder speaks, it is the absolute truth. I have never heard an elder lie. And I fail to understand how these so-called scientists, with all their knowledge, can dare our (sic) people ignorant. To me, that is the most puzzling thing about this whole business of knowledge of the land. A scientist opens up his little book, looks in it, checks to see if he has got his facts right. An elder never has to. An elder has all his knowledge in his head. He was born with it, and he will die with it. A scientist has to learn it from books. He has to go to universities. He has to do this; he has to do that. All of that means nothing. It is experience and a lifetime of learning. That's what matters." (Deputy Chief Robbie Niquanicappo, Cree leader, Kuujjuaraapik-Whapmagoostui, March 11, Vol. 13, p. 41)

"We have endured decades of political domination, which has been instigated in arrogance and ignorance by the governments and contemporary society. Our values and aspirations are not reflected in the shape of societies, institutions, nor in the policies that guide industrialization, development, and growth within our own homeland on the James Bay territory of northern Quebec. The development plan of Hydro-Québec is classic example where one institution has completely ignored the values, goals, and aspirations of the permanent habitants and residents of the territory, in which hydroelectric development is planned......In respect to the proposed Great Whale hydroelectric project, polarization has already development (sic) with government and proponent on one side and native people and interest groups on the other side. This polarization is characterized by lack of understanding and trust." (Chief Henri Mianscum, Cree leader, Val d'Or, February 27, Vol. 2, pp. 50-52)

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"When you start working on something, and you find enthusiasm in it, nothing is able to stop you. We have seen that. We have seen the buffaloes sought to almost extinction. That's from enthusiasm. The same with cod today, cod is being done the same way. When you go at it, you go at it, and nobody can stop that. Even people with the good senses, they cannot stop that. And this is where I feel that we are at, that we are caught in the path of the enthusiasm." (Peter Inukpuk, Inuit, Inukjuak, February 4, Vol. 2, p. 72)

"The North is not about hydro projects, it's about a people. It's about the people, their way of life, their land, their love and respect for the land its resources. The people have said that the creator has provided for their needs through his land. I can only understand that the Premier may have indeed been blind when he wrote in his book that these turbulent waters are a waste unless they are exploited and used for profits. There is something indeed wrong with this system which perpetuates profit in order to justify the destruction of land, a society and people." (Philip Awashish, Chairman, Kuujjuaraapik-Whapmagoostui, March 12, Vol. 14, pp. 57-58)

#### 3. Southern, non-native, environmentalist paradigm

"En Amérique du Nord, en général, la facon dont le monde occidental voit des choses, ils ne voient pas un monde - c'est a dire que les gens du nord ne voient pas le monde séparé: un monde religieux, social, économique, et caeterea, ils voient un monde qui les entoure, dont ils font partie et qui fonctionne. Ainsi, je dirais que c'est un des devoirs de toute évaluation environnmentale de tenter de respecter, de refléter cette vision du monde et c'est ce dont je parlais il y a un moment, comment évaluer les choses. En meme temps, je dirais qu'il faut essayer d'exprimer et de respecter les points de vue des autres éléments de la société québécoise et cela, en bout de piste, est une décision difficile. C'est un choix, je pense, qui est juste quand meme, de reconnaitre différents points de vue, meme si parfois ils s'opposent." (Paul Wilkinson, Consultant to Makivik Corporation, Montreal, March 19, Vol.. 6, p. 107)

"Nous sommes membres de l'Association des Manufacturiers, et il importe de dire que le point de vue exprimé par Monsieur Le Hir ne représentee aucunement notre vision de développement pour le Québec. Au contraire, nous questionnons la politique énergétique et économique du gouvernement qui consiste, entre autres, a attirer des industries énergivores en sol québécois en leur offrant des taux préférentiels." (Perihan Sheard, Lumiere sur l'Energie, Montreal, March 20, Vol. 8, p. 69)

"At this point, the development is completely centered on artificial riches, which means that we are forcing a development of this to the detriment of natural and human resources." (Jean Ouimet, Green Party, Montreal, March 16, Vol. 1, p. 133)

#### 4. Comment

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"Et c'est aussi évident qu'il va y avoir partout dans le Tiers-Monde et meme dans le Second-Monde des milliers de travailleurs qui vont dire, du Nigeria au Brésil, qu'ils ont, eux et elles aussi, le droit de participer un peu a cette richesse. Et, parfois, ils ajoutent: 'Et a n'importe quel prix', quand on est vraiment mal pris et qu'on est en foret amazonienne. Et c'est la souvent le coeur du probleme." (Bernard Arcand, panelist; Montreal, March 19, Vol. 7, p. 145)

#### APPENDIX B: LIST OF INFORMAL INTERVIEWEES

Dr. Bernard Arcand, Kativik Environmental Quality Commission Gerald Aubry, FEARO Michael Barrett, Makivik Corporation Daniel Berrouard, Member, Kativik Environmental Quality Commission Dr. Michel Bouchard, Great Whale Public Review Support Office Francois Bregha, Rawson Academy of Aquatic Science Hervé Chatagnier, MENVIQ Phillippe Di Pizzo, Kativik Regional Government Dr. Terry Fenge, Canadian Arctic Resources Committee Donald Gamble, Rawson Academy of Aquatic Science Prof. Lorne Giroux, Laval University Stephen Hazel, Canadian Arctic Resources Committee Gilles Harvey, Kativik Environmental Quality Commission John Hurley, Byers-Casgrain Dr. Grant Ingram, Federal Environmental Assessment Review Panel Prof. Peter Jacobs, Chairman, Kativik Environmental Quality Commission Prof. Robert F. Keith, University of Waterloo Robert Lanari, Makivik Corporation David Okpik, Kativik Environmental Quality Commission Phillip Raphals, Great Whale Public Review Support Office Barry Sadler, Consultant Prof. Dietrich Soyez, University of Saarland Benoit Taillon, Evaluating Committee Pierre Vincent, Consultant Sylvie Vincent, Great Whale Public Review Support Office



# APPENDIX C: GREAT WHALE ENVIRONMENTAL REVIEW PANEL MEMBERS

## Kativik Environmental Quality Commission

Peter Jacobs (Chairman) Paul Alaku Bernard Arcand Daniel Berrouard Bertrand Bouchard Gilles Harvey David Okpik Josepi Padloyat Georges Simard Mary Simon

#### **Evaluating Committee**

Billy Diamond (Chairman) Philip Awashish Daniel Berrouard Jacques Michaud Jean Robitaille Benoit Taillon

## Federal Environmental Assessment Review Panel & Federal Review Committee (North)

Paul Lacoste (Chairman) Isaac Anowak Claude Delisle Jules Dufour Grant Ingram

## APPENDIX D: LIST OF SELECTED GREAT WHALE PUBLIC REVIEW SUPPORT OFFICE PUBLICATIONS

Bureau de soutien de l'examen public du projet Grande Baleine, 1992. Commentaires recus du public. 15 juin 1992.

- Evaluating Committee, Kativik Environmental Quality Commission, Federal Review Committee North of the 55th Parallel, Federal Environmental Assessment Review Panel, 1992. Guidelines: Environmental Impact Statement for the Proposed Great Whale River Hydroelectric Project Montreal: Great Whale Public Review Support Office.
- Evaluation Environnementale Projet Grande Baleine. Transcripts of Hearings. Mackay, Maynard & Associes, Stenographes officiels. Montréal, 1992.
- Great Whale Public Review Support Office, 1993. "Ethical Issues Relating to the Public Review of the Great Whale Project." Proceedings of a workshop held July 14, 1992. Technical bulletin no. 6.
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- Great Whale Public Review Support Office, 1993. "Steps to come in the public review and environmental assessment process of the Great Whale project." Internal document.
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- Mailhot, J. 1993. Traditional Ecological Knowledge. The Diversity of Knowledge Systems and Their Study. Great Whale Environmental Assessment: Background Paper No. 4, Great Whale Public Review Support Office.
- McCutcheon, S. 1994. Mitigation Measures at the La Grande Complex: A Review. Great Whale Environmental Assessment: Background Paper No. 8, Great Whale Public Review Support Office.
- Vincent, S. 1994. Consulting the Population. Definition and Methodological Questions. Great Whale Environmental Assessment: Background Paper No. 10, Great Whale Public Review Support Office.



## APPENDIX E: LIST OF INUIT CONCERNS SUBMITTED BY MAKIVIK CORP.

## A. ENVIRONMENTAL IMPACTS

- A.1 Environment and land (general)
- A.2 Water rivers lakes (general)
- A.3 Land flooding
- A.4 Water level in the sea
- A.5 Water flow reduction
- A.6 Water/sea currents
- A.7 Water changes in salinity
- A.8 Tides
- A.9 Ice formation
- A.10 Animals (general)
- A.11 Food chain
- A.12 Migratory animals
- A.13 Birds (general)
- A.14 Nesting
- A.15 Waterfowl
- A.16 Ptarmigan
- A.17 Caribou

#### **B. CONTAMINATION**

- B.1 Mercury
- B.2 Food contamination
- B.3 Water contamination
- B.4 Drinking water quality
- B.5 Human health
- B.6 Animal health

## C. INUIT WAY OF LIFE

- C.1 Children and future generations
- C.2 Culture and traditional life

- A.18 Fish (general)
- A.19 Spawning/breeding
- A.20 Marine mammals
- A.21 Seals
- A.22 Whales
- A.23 Other aquatic species
- A.24 Endangered species
- A.25 Deforestation
- A.26 Ozone layer
- A.27 Climatic changes
- A.28 Noise
- A.29 Erosion
- A.30 Water sediments
- A.31 Habitat
- A.32 Seismic activity
- A.33 Life (general)
- B.7 Whales
- B.8 Fish
- B.9 Waste
- B.10 Oil and gas spills
- B.11 Contaminants (general)
- B.12 Other

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- C.3 Inuit heritage
- C.4 Inuit values
- C.5 Inuit control over the land
- C.6 Inuit people extinction
- C.7 Hunting
- C.8 Hunting pressure
- C.9 Fishing
- C.10 Trapping
- C.11 Use of plants and berries as food
- C.12 Country food consumption
- C.13 Store food consumption
- C.14 Noise
- C.15 Demography language

## D. SOCIAL IMPACTS

- D.1 Social problems (general)
- D.2 Social tension
- D.3 Relocation
- D.4 Inuit Cree relationship
- D.5 Youth concerns
- D.6 Drug and alcohol abuse
- D.7 Suicide
- D.8 Poverty
- D.9 Young people traveling south

## E. ACCESS INFRASTRUCTURE

- E.1 Roads (general)
- E.2 Road accidents
- E.3 Control of access roads
- E.4 Air traffic

## F. TRANSMISSION LINES

F.1 Width of corridors

- D.10 Employment
- D.11 Economic devel.
- D.12 Security/control
- D.13 Prostitution
- D.14 Single mothers
- D.15 Violence
- D.16 Mental health
- D.17 Other

F.2 Animals

F.3 Use of plants and berries as food

### G. TECHNICAL ASPECTS OF THE PROJECT

- G.1 Frequency of use of GB-1 spillway
- G.2 Location of spillway
- G.3 Operation of GB-1 spillway
- G.4 Effects of use of GB-1 tailrace
- G.5 Oversea access at GB-1 tailrace
- G.6 Control of water level at Lac Bienville

### H. PROJECT JUSTIFICATION

- H.1 Electricity conservation
- H.2 Supply alternatives
- H.3 Electricity exports to United States
- H.4 Alternative sites for producing electricity
- H.5 Criteria for estimating cost of project
- H.6 Electricity rate
- H.7 Cost-benefit analysis

## I. IMPACT STUDY METHODOLOGY

- I.1 Inuit participation
- I.2 Study area
- I.3 Insufficient time allocated to research
- I.4 Use of planes and helicopters
- I.5 Reliability of data
- I.6 Impact of studies on animals
- I.7 Cumulative impact assessment
- I.8 Comprehensive studies
- I.9 Monitoring
- I.10 Communication of information
- I.11 Restoration of study sites
- I.12 Other



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## J. MITIGATIVE MEASURES

- J.1 Clear cutting
- J.2 Clean up

## K. OTHER

K.1 Land regime



## APPENDIX F: ANALYSIS OF SUPPORT IN EIS GUIDELINES FOR THEMES AND METAPHORS HEARD IN SCOPING HEARINGS

#### 1. The food we eat.

Intervenors described, often in considerable detail, the country foods they harvest and eat. "Food" was used interchangeably with "environment" on several occasions, as in "the development would disrupt our food". Many intervenors seemed to be describing their overall lives and identities by discussing country food.

The continued availability of country food is addressed generally in the guidelines in sections dealing with wildlife populations and distribution and ecosystemic health and integrity. The theme is incorporated but not holistically - the treatment is reductionist, and food is reduced to a good rather than a process as expressed by the intervenors.

## 2. Country food vs. store-bought.

Related to #1, but here intervenors were more specific, making comparative comments with respect to country and store-bought food. Comments tended to focus on the latter and relate to aspects of value and health.

This theme is emphasized in the guidelines.

## 3. Living off the land. Hunting/fishing/trapping lifestyle.

Not to be confused with #1. Many intervenors described the process of hunting and its central importance to them. A way of life as opposed to the physiological/psychological and spiritual sustenance afforded by country food.

Emphasized in the guidelines.

#### 4. Self-reliance achieved through traditional lifestyle.

Related to #3, but with self-reliance as a strong and discrete theme. Intervenors typically note or imply that prospects for such self-reliance are threatened by the project.

There is little, if any, specific discussion of self-reliance in the guidelines. The definition of sustainable development could have been expanded to include reference to self reliance.

#### 5. Irreplaceable values.

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In discussing the project, impacts or aspects of their lives, many intervenors said that no form or amount of compensation would be sufficient to replace the loss of certain inherent values.

This theme was not addressed explicitly in the guidelines, nor was it emphasized implicitly, although it was alluded to. In presenting its justification for the project, the proponent could have been asked to describe its method or underlying assumptions in comparing and weighing conflicting values. The proponent might also have been asked to explain how it deals with unquantifiable values, and likewise explain the rationale for seeking to compensate losses of an imponderable or unquantifiable nature.

#### 6. Options for future generations compromised.

Many intervenors expressed concern for their children/grandchildren, young people or future generations if the project is approved.

Addressed in guidelines.

## 7. Abundance of wildlife; pattern of decline.

Many intervenors spoke of the abundance or richness of wildlife in their territory, either in the past or present. Most of these intervenors noted a

Addressed in guidelines. This theme, however, was reduced as an "issue", but its richness was somewhat lost. The act of separating stories into discrete issues is inherently reductionist. In analyzing interventions such as this, the panel had no specific way to deal with stories, other than to extract themes/issues.

## 8. Stewardship/respect for nature.

Many intervenors described their (or their people's) inherent respect for nature in terms of their basic beliefs and relationship to the land.

The notion of sustainable development as defined in the guidelines could have been expanded, or clarified, to include the concept of stewardship. Reflected but not emphasized in the guideline. The proponent could have been asked to explain why the project is consistent with the concept of stewardship, and not just in conformity with a minimum definition of sustainable development. While vague, this approach encourages proponents to think in terms of projects that are "desirable", rather than just "acceptable".

## 9. Connection to land.

Related to #8, but here intervenors tended to simply talk about their connection to the land in general terms, rather than in terms of harvesting, conservation or stewardship; e.g. "I am a part of the land".

Addressed in the guidelines. The idea of "connection to the land" seems to provide a strong basis for considering the interrelatedness of biophysical and social impacts in preparing guidelines.

#### 10. Traditional knowledge of land/environment.

Distinct from #s 8 and 9. Intervenors spoke of the traditional knowledge passed on from previous generations. This type of intervention sometimes came in the context of the intervenor's questioning of the white man's or the proponent's knowledge of the land and environment.

Addressed in guidelines.

#### 11. Conservation.

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Again, related to but distinct from above themes. In the context of daily lifestyle or hunting, intervenors described general or specific measures to minimize waste - measures different from those usually employed by the white man.

Reflected but not addressed in the guidelines.

#### 12. Rapid social change.

Intervenors spoke of rapid social changes that have taken place since La Grande, or expressed concern with respect to possible future changes and disruption of lifestyles.

This is an example of a theme that can be captured as an "issue" by virtue of its straightforwardness. It is emphasized in the guidelines.

#### 13. Social and cultural continuity threatened.

Not quite the same as #13. Here, intervenors described the kind of life they would like to preserve and speculated as to what would happen if northern communities were "left alone". They described an unbroken social and cultural continuity, without the hydro projects.

The idea of "social and cultural continuity" was emphasized in the guidelines.

#### 14. Cultural survival.

Here, intervenors spoke specifically about the prospect of cultural survival and genocide, in contrast to the more general type of interventions described in #13.

Reflected but not addressed explicitly in the guidelines.

### 15. Quallunat.

Intervenors described the white man in terms of the cross-cultural experiences that they have had, and probed the psyche of the quallunat, sometimes characterizing white people as more destructive, colonial, disrespectful of nature, ecologically irresponsible, and deceitful.

The spirit of this theme may be reflected in the guidelines in areas that emphasize respect for values, although it is difficult for EA to do much with this kind of input or pattern of expression

### 16. Loss.

A theme marked more by tone than by specific content. Intervenors discussed land, culture, traditions, water, etc., all in terms of being irretrievably lost. The implication seemed to be that such things "lost" are a violation of a natural order, and their loss can only be addressed in the spiritual realm.

This theme is related to #5 - "Irreplaceable values". It is reflected but not really addressed in the guidelines, although it is a key integrative theme that captures the tone of many interventions. This concern could have been addressed by requiring the proponent to tackle the question of imponderable impacts and unquantifiable values.

#### 17. Community.

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Intervenors described the way that their traditional lifestyle promotes a sense of community, and how participation in the wage economy threatens community integrity. e.g. "When we get back from hunting we share the food with the neighbors."

Addressed but not emphasized in the guidelines. All sections dealing with social impacts could have been modified to incorporate the idea of community, and to reflect a concern with collective as well as individual changes. The idea of community integrity and its fragility in the face of structural changes such as fewer opportunities for hunting, fishing and trapping could have been emphasized to a greater degree. This was done to some extent.

#### 18. Time immemorial.

Intervenors made references to their long history of occupation on the land, usually in the context of other themes such as native rights and cultural survival.

Reflected but not addressed in the guidelines.

#### 19. Marginalization of native concerns.

Intervenors complained that their interests and concerns have been ignored or marginalized in the political process surrounding Great Whale.

Addressed in the guidelines.

#### 20. Living in two cultures.

Intervenors spoke of the reality of living in both native and non-native cultures, and the resulting confusion. This intervention is seen as distinct from related ones relating to social change; the intervenors may mean that they are in a transitional process from one cultural state to another, or they



may mean that they can retain their cultural distinctiveness while "living" some aspects of white culture.

Emphasized in the guidelines.

#### 21. The river.

Intervenors spoke of the river(s) of significance to themselves or their communities. Rivers were described in various terms - big, good, bountiful, friendly, spiritual. This kind of intervention, like theme #1 ("the food we eat") may be seen as overarching; "river" may have been used interchangeably with "environment" or "life" by a particular intervenor.

Reflected but not addressed in the guidelines. This concern once again shows that the separation of biophysical and social impacts is problematic. A guideline relating to the impact on the spiritual properties of land and water or the loss of enjoyment of land and water by native people could have been included more explicitly. This theme, like others, suggests that attention to conceptual and symbolic systems is needed in EA; a general requirement may be passed on to the proponent in conducting the EA but the latter may not be up to the challenge without being provided with specific tools.

#### 22. Being able to drink river water.

Intervenors discussed how they are (or were once) able to drink water directly from the river. Intervenors implied that this was a main symbol of environmental health; they also implied that not being able to drink river water is tragic.

Not reflected in the guidelines.

#### 23. Flooding/drowning graves/culture/wildlife.

Intervenors spoke of their disapproval of the proponent flooding the graves of their ancestors. "Flooding", "drowning" and "underwater" were also

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used in reference to wildlife and native culture. Intervenors seemed to suggest that flooding is a particularly disrespectful way to destroy land.

Addressed in the guidelines.

### 24. If wildlife could speak.....

Several intervenors said that if the animals could talk, they would oppose the project. Some said that they had heard or felt the animals speak. Others said they felt close to the animals of the region, and could speak for them.

Not reflected in the guidelines.

## Other themes

## 25. The white man's poison.

Used in reference to imported alcohol, pollutants, diseases; also more figuratively in reference to cultural values.

Reflected in the guidelines.

### 26. Spiritual well-being.

Addressed in the guidelines.

27. The environment is human.

An intervenor's assertion.

Reflected in the guidelines. This assertion supports the need to be careful about separating social and biophysical impacts

#### 28. Fear of an uncertain future.

In these cases, the intervenors were not specific as to what particular future scenarios they feared; they expressed anxiety regarding uncertainty.

Emphasized in the guidelines.

#### 29. Loss of freedom on the land.

This theme related to the loss of ability to move freely about the territory due to hydro development.

While this concern is reflected in the guidelines, if it had been taken literally, a more literal guideline would have been the requirement to study the "impact of loss of enjoyment of land or loss of feeling of freedom on land".

#### 30. Disrupted ecological cycles.

Addressed in the guidelines.

31. Young people confused, lost as a result of development.

Addressed in the guidelines.

#### 32. Need for sustainable development.

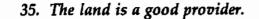
Emphasized in the guidelines.

33. The physical environment of James Bay region is fragile.

Addressed in the guidelines.

34. Smaller scale development is more appropriate.

Not reflected in the guidelines.



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Related to, but slightly distinct from theme #7.

Reflected in the guidelines.

36. The desirability of a lifestyle based on subsistence.

Related to, but slightly distinct from themes such as #4; subsistence contrasted with other pursuits - i.e. wage economy.

Addressed in the guidelines.

37. Dislocation/negative impacts of moving, relocating.

Addressed in the guidelines.

38. Inadequacy of maps in depicting land, life, issues, reality.

Reflected in the guidelines.

39. The Env. Assessment process is of limited use and relevance.

Reflected in the guidelines in sections emphasizing the need for relevance of data provided by the proponent.

40. Holism; human/ecological interconnections.

Addressed in the guidelines.

#### 41. Dogs and dog teams.

The intervenors spoke of the present and mostly past use of dog teams. Two intervenors noted that their dogs had been killed by white authorities; this seems to have been a deeply-felt consequence of colonialism from the native point of view.

Not reflected in the guidelines. In general this sort of concern is covered in the guidelines by requirements for the proponent to study impacts on traditional lifestyle, but only partially so; the thrust of this comment is lost.

## 42. The taste of wild meat is changing.

The intervenors noted that the taste of certain animals has changed for the worse.

Reflected in the guidelines.

## 43. Cooperation between Inuit and Crees.

The intervenors noted that there was a high level of respect and cooperation in the past between the two cultures, but implied that a strain has been placed on the relationship as a result of colonialism and development pressures.

Reflected in the guidelines.

## 44. "Our sea life."

The intervenor's phrase; a simple but eloquent construction.

Reflected in the guidelines.

#### 45. Peace/tranquillity/serenity of life prior to development.

Reflected in the guidelines. Concerns such as this one are covered by more technical terms such as "social/community impacts". Such translations are by nature somewhat imprecise, however; terms such as peacefulness, tranquillity, and serenity of life have particular, and perhaps highly personal connotations.

#### 46. Living in a "natural" vs. "unnatural" environment.

Reflected in the guidelines. This is an example of a perceptual, "intangible" or non-measurable effect; none of which make it any less real.

#### 47. Cultural heritage.

Related to such themes as #13, but with the accent on "heritage", something unique that the people have; a kind of birthright.

Reflected in the guidelines.

#### 48. Land and spirituality.

The specific spiritual dimension of the land.

Addressed in the guidelines.

49. Cree rituals, ceremonies based on nature.

Reflected in the guidelines.

#### 50. Cree "natural knowledge."

A distinct phrase; perhaps not the same as traditional knowledge.



### 51. Sense of uniqueness of place.

The intervenor said no other place could substitute for his home if it was flooded.

Reflected in the guidelines.

#### 52. Humans in the food chain.

The intervenors, instead of referring to "ecology", made reference to the food chain; perhaps an affirmation of theme #1.

Addressed in the guidelines.

#### **Major Metaphors**

53. Mother Earth.

Mainly a Cree theme in the hearings.

Reflected in the guidelines.

#### 54. The Garden.

Also a Cree theme, as in "the land is our garden".

Reflected in the guidelines.

55. The Creator.

Once again, a predominantly Cree theme.



**Other metaphors** 

56. Native land is a "natural farm".

Two Inuit intervenors.

Reflected in the guidelines.

57. The dam is death.

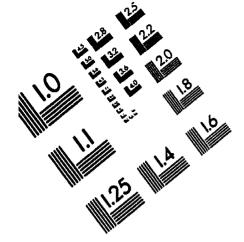
Not reflected in the guidelines.

58. James Bay is like the rain forest.

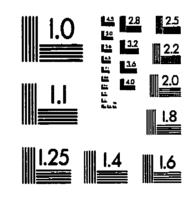
Not reflected in the guidelines.

59. The four walls closing in on Cree culture. Not reflected in the guidelines.

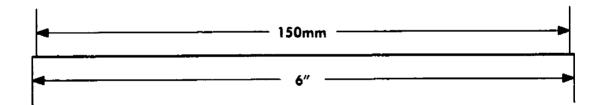
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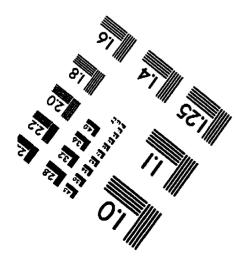


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