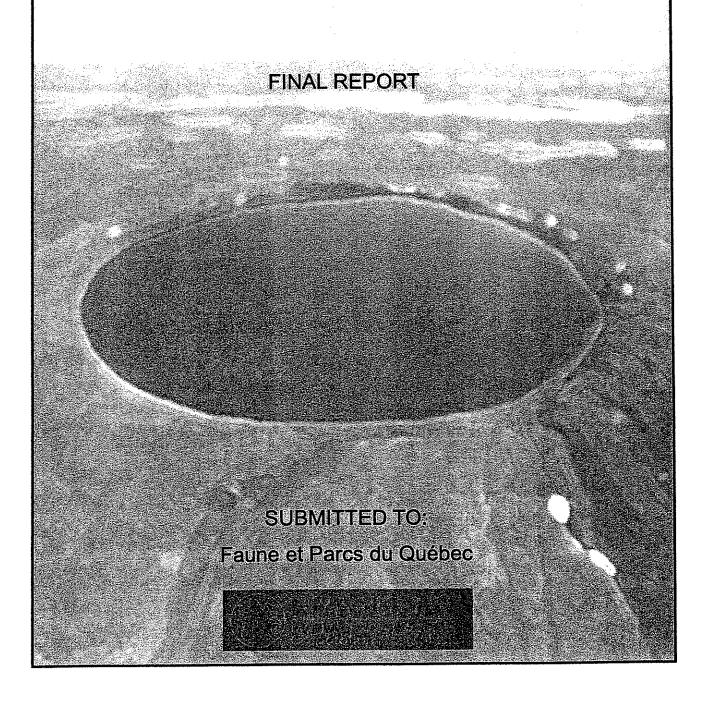
# PINGUALUIT PROVINCIAL PARK PROJECT SOCIO-ECONOMIC IMPACT STUDY



#### PINGUALUIT PROVINCIAL PARK

PROJECT: SOCIO-ECONOMIC IMPACT STUDY



#### Submitted to:

Société de la Faune et des Parcs du Québec

Project Director:
Project Coordinator:

Cartography:

Interpretation:

Robert Lanari Simon Smith Charles Burgy

Willie Adams

Willie Adams
Aipili Qumaaluk

Tiivi Qumaaluk

Anthropologist

Geographer Geographer

Cartography Technician

Kangiqsujuaq Kangiqsujuaq

May 2000

 $CL^6dQ$   $Cd^4dCD^6d^6$   $A^6GDD^6d^6$   $A^6GDD^6d^6$   $A^6GDD^6$   $A^6DDD^6$   $A^6DDDD^6$   $A^6DDDD^6$   $A^6DDDD^6$   $A^6DDDD^6$   $A^6DDDDD^6$   $A^6DDDDDD^6$   $A^6DDDDDDD^6$   $A^6DDDDDDDDDDDDDDDDDDDDDDDDDDDDD$ 

  $\Delta CD + \delta S^{\dagger} \cap \Delta I \quad \Delta C\sigma^{\dagger} \quad \dot{\rho} \in D^{\dagger} - D^{\dagger} \wedge D \cup D^{\dagger} \cap D^{\dagger} \quad A^{\dagger} + U \cup D^{\dagger} \cap D^{\dagger} \quad A^{\dagger} + U \cup D^{\dagger} \cap D^{\dagger} \quad A^{\dagger} + U \cup D^{\dagger} \cap D^{\dagger} \quad A^{\dagger} \cap D^{\dagger} \cap D^{\dagger} \quad A^{\dagger} \cap D^{\dagger} \cap D^{$ 

> $\dot{c}$   $\Delta$   $\dot{c}$   $\Delta$ 

>A'GOTC=', set' P'UO'NY' A>'AOISTNB'O' CL $\Delta$ -G' > $\in$  A'ILZ-CG'I' AC'GTL' O'CLA-G', A'L= T'V $\Delta$ A'AT' Cd- $\in$ G'I' CL'dG' AIN'B?- $\in$ G'> $\in$ CL'dG' O'CL'GG'.

 $P'U'-<\Gamma-$ ,  $Y'-\Gamma \Delta$   $A'-\Gamma A'-\Gamma A'-\Gamma-$  A'- A'

#### RAPPORT D'ACTIVITÉ SOMMAIRE

Cette étude a été entreprise pour permettre d'identifier les retombées économiques et les incidences sociales du projet de Parc Pingualuit sur les communautés directement affectées. L'étude porte plus particulièrement sur la communauté de Kangiqsujuaq, qui a été désignée comme le point d'entrée au parc.

Pour accomplir cette tâche, on a établi la méthodologie suivante : Premièrement, on a procédé à la lecture du matériel relié aux incidences sociales des parcs. Deuxièmement, on a compilé les données qualitatives et quantitatives sur l'environnement social du Nunavik. Troisièmement, on a contacté les communautés de Kangiqsujuaq, de Salluit et de Puvirnituq par téléphone. Quatrièmement, on a conçu des questionnaires pour faciliter les entrevues au sujet de l'utilisation de la terre et des incidences sociales. Cinquièmement, on a mené des travaux sur le terrain à Kangiqsujuaq et à Puvirnituq. Finalement, on a procédé à l'analyse des données recueillies lors des entrevues.

Ce rapport débute par la description des conditions socio-économiques qui existent plus particulièrement dans la région de Kangiqsujuaq. Il décrit l'utilisation des terres faite par les Inuits de Kangiqsujuaq, traite de la perception du développement touristique dans le Nord et aborde les retombées économiques et les incidences sociales du parc sur les communautés de Kangiqsujuaq et de Puvirnituq. Enfin, dans la section portant sur la surveillance, le rapport fait des recommandations quant aux étapes à suivre pendant les phases de mise en œuvre et d'exploitation du projet de parc.

Les incidences perçues concernant l'utilisation des terres, l'économie et les aspects sociaux de la communauté de Kangiqsujuaq peuvent être résumées de la façon suivante :

Les Inuits de Kangiqsujuaq traversent le territoire du parc lors de leurs déplacements, mais le fréquentent rarement pour la chasse et leurs activités traditionnelles. La pêche est une activité que des répondants ont dit pratiquer à l'intérieur des limites du parc. Ils ont identifié un vaste territoire, incluant celui proposé pour la création du parc, comme une région de pêche.

Bien que l'utilisation actuelle de la région ne soit pas intense, des Inuits de l'endroit affirment avoir toujours utilisé ce territoire pour leurs activités traditionnelles. Le maintien de cette utilisation des terres est extrêmement importante et le soutien des habitants de la région repose en grande partie sur la possibilité de préserver les droits de chasse, de pêche et d'utilisation de la terre à l'intérieur des limites du parc. La population inuite de la région veut également imposer une surveillance stricte de l'accès au parc afin d'éviter de déranger la faune dans les territoires de chasse environnants. La nécessité d'exercer des restrictions sur la pêche et la pollution à l'intérieur du parc a également été évoquée par des membres de la communauté.

Les attentes de la communauté de Kangiqsujuaq à propos des incidences du parc sur l'économie locale sont très élevées. Des répondants prévoient que des sommes d'argent importantes seront injectées dans leur communauté, principalement aux entreprises qui

offrent des services de restauration, d'hébergement, d'artisanat et de guidage. Certains membres de la communauté reconnaissent que les retombées économiques seront faibles au départ, mais ils s'attendent à une plus grande affluence au parc et à des revenus plus importants à long terme.

Il y a, toutefois, une certaine incertitude eu égard à la conservation et au réinvestissement des argents dépensés par les visiteurs. Présentement, des membres de la communauté envisagent la possibilité de créer de nouvelles entreprises qui répondraient aux besoins des visiteurs (ex.: hôtel, restaurant, vente de mets traditionnels, guidage), mais ils reconnaissent qu'une formation sera nécessaire pour développer ces concepts commerciaux. De plus, on ignore combien d'emplois directs seront générés par la création du parc.

Le tourisme est généralement perçu par les résidents de Kangiqsujuaq comme une activité ayant un effet positif sur leur culture. Des répondants ont indiqué diverses raisons soutenant ce point de vue, en prétendant que le tourisme pouvait être considéré comme une occasion d'échanges interculturels avec les visiteurs. Certains membres de la communauté étaient d'avis que la culture inuite serait renforcée par l'interaction avec les touristes, parce que les gens des villages seraient forcés de se familiariser avec leur propre culture afin de la faire connaître aux visiteurs.

Des répondants ont manifesté certaines inquiétudes spécifiques à propos des impacts négatifs que pourrait avoir le développement touristique sur leur communauté. On craint que les visiteurs ne respectent pas les règlements municipaux relatifs à la consommation de drogue et d'alcool. Les relations sexuelles entre des femmes inuites et des touristes en visite constituent également une source d'inquiétude pour certains membres de la communauté. Finalement, certains répondants ont évoqué le besoin de restreindre en tout temps le nombre de visiteurs à des groupes relativement petits, en donnant pour raison que les petits groupes sont plus faciles à surveiller et à encadrer.

En ce qui concerne Puvirnituq, des représentants de la communauté sont intéressés à la fois par le développement touristique et par la protection de l'environnement et de la faune. Ils considèrent les parcs comme un moyen de réaliser ces objectifs.

Qui plus est, ces représentants sentent qu'ils ont besoin de plus de renseignements à propos du Parc Pingualuit. Ils ont dit n'avoir reçu, du moins formellement, aucun renseignement concernant la proposition de parc et ont exprimé le souhait d'être tenus informés à l'avenir. Ils aimeraient aussi comprendre les étapes qui doivent être entreprises pour la création d'un parc dans leur propre région.

Enfin, les représentants de la corporation foncière de Salluit ont exprimé le sentiment que le parc aura une incidence minimale sur le milieu social et économique de leur communauté.

Références: Lanari, Robert et Simon Smith, Pingualuit Provincial Park

Project : Socio-economic Impact study. A Report Submitted to Société de la faune et des parcs du Québec, Société Makivik, Québec, mars 2000.

Mots clés : Pingualuit, Parc provincial, Nunavik, Kangiqsujuaq. Puvirnituq. utilisation

des terres, retombées économiques, incidence sociale.

#### EXECUTIVE SUMMARY

This study was undertaken to identify the social and economic impacts of the Pingualuit Park project on the communities directly affected by it. More particularly, this study focuses on the community of Kangiqsujuaq, which was designated as the access point to the Park.

To accomplish this task, the following methodology was established: first, a literature review of material related to the social impacts of parks was conducted. Second, qualitative and quantitative data on the social environment of Nunavik was compiled. Third, the communities of Kangiqsujuaq, Salluit, and Puvirnituq were contacted by phone. Fourth, questionnaires were built to facilitate both the land use and the social impact interviews. Fifth, field work was conducted in Kangiqsujuaq and Puvirnituq. Finally, analysis of the data obtained from the interviews was carried out.

This report begins by describing the existing socio-economic conditions of the Region and Kangiqsujuaq in particular. It describes the land use of Kangiqsujuaq Inuit, discusses the perception of tourism development in the North, and deals with the economic and social impacts of the Park on Kangiqsujuaq and Puvirnituq. Finally, in the monitoring section, the report makes recommendations as to the steps to be taken during the implementation and operation phases of the Park project.

The perceived impacts on the land use, economy, and social aspects of the community of Kangiqsujuaq can be summarized in the following manner:

Kangiqsujuaq Inuit travel through the Park area, but it is not heavily used for hunting or traditional activities. Fishing is one activity that interviewees spoke about in relation to the Park boundaries. They identified a large area, including the proposed Park, as a fishing region.

While present usage of the proposed Park area is not intense, local Inuit affirm that they have always used the area for traditional activities. The retention of this land use is extremely important, and local support for the Park is based in large part on the ability to retain hunting, fishing, and land use rights within the Park boundary. Local Inuit also want strict controls on Park access to avoid disruption of wildlife in the surrounding hunting grounds. The need for controls on fishing and pollution within the Park was also expressed by community members.

Expectations in the community of Kangiqsujuaq are high regarding the Park's impact on the local economy. Interviewees envisioned a significant amount of money being injected into their community, going mostly to businesses offering food and accommodation, handicrafts, and guiding services. There was some recognition in the community that economic impacts will be small at first, but they expect increasing Park attendance and resulting revenues down the line.

The ability of the community to retain and respend visitor expenditures is not clear. Presently, community members see opportunities for the creation of new business that would cater to visitors' needs (e.g. hotel, restaurant, selling traditional food, guiding), but they recognize that training is needed to develop these business ideas. Additionally, it is unknown how many jobs will be created by direct Park employment.

Tourism is generally seen by residents of Kangiqsujuaq as having a positive effect on their culture. Interviewees cited various reasons for this view, claiming that tourism can be seen as an opportunity for inter-cultural exchange with the visitors. Some community members believed that Inuit culture would be strengthened through interaction with tourists, because it would force townspeople to first learn about their culture, then pass it on to visitors.

Interviewees spoke of some specific concerns that they have regarding the negative impacts that tourism development might have on their community. There is a concern that visitors will not respect local by-laws concerning drug and alcohol use. Sexual relations between Inuit women and visiting tourists was also a source of concern for some community members. Finally, some interviewees spoke of the need to keep groups of visitors reasonably small at any one time, citing the reason that smaller groups are easier to control and monitor.

For Puvirnituq, community representatives are interested in both tourism development and protecting the environment and the wildlife, and parks are seen as a mean to achieve these goals.

Moreover, the representatives felt that they need more information regarding the creation of the Pingualuit Park. They have never received, at least formally, any information regarding the Park proposal and they expressed the wish to be kept inform in the future. Furthermore, they would like to understand the steps that have to be taken for the creation of a park in their own area.

Finally, for Salluit the feeling from the landholding representative was that the Park will have minimal impact on the social and economic milieu of the community.

Referenced as: Lanari, Robert, and Simon Smith, Pingualuit Provincial Park

Project: Socio-economic Impact Study. A Report Submitted to Société de la Faune et des Parcs du Québec, Makivik Corporation,

Kuujjuaq, Quebec, March 2000.

Keywords: Pingualuit, Provincial Park, Nunavik, Kangiqsujuaq, Puvirnituq, land use, economic impact, social impact.

## TABLE OF CONTENTS

Table	e of Cor	ntents	Page i	
List	of Figur	res and Tables	iv	
1.0	Intro	Introduction		
	1.1	Description of the Proposed Park Project	1	
	1.2	Purpose of the Report	3	
	1.3	Methodology	3 3	
	1.4	Justification of the Study Zone	7	
2.0	Exist	ing Socio-Economic Conditions	9	
	2.1	The Nunavik Region	9	
•		2.1.1 Public Administration	10	
		2.1.2 Demographics	11	
		2.1.3 Education	13	
		2.1.4 Employment and Manpower	13	
		2.1.5 Business and Activity Sectors	14	
	2.2	Kangiqsujuaq	15	
		2.2.1 Demographics	15	
		2.2.2 Income	16	
		2.2.3 Education	16	
		2.2.4 Employment and Manpower	17	
		2.2.5 Infrastructures and Facilities	18	
		2.2.6 Organizations	19	
3.0	Kang	giqsujuaq Land Use and Ecological Knowledge	21	
	3.1	Description of Current Inuit Land Use and Ecological		
		Knowledge	22	
		3.1.1 Birds	22	
		3.1.2 Fishes	22	
		3.1.3 Land Mammals	23	
		3.1.4 Marine Mammals	23	
		3.1.5 Landmarks	24	
		3.1.6 Travel Routes	25	
		3.1.7 Intensity of Land Use	25	

# TABLE OF CONTENTS (continued)

	Page		
Impacts of the Park on Inuit Land Use	26		
	26		
	27		
	28		
	29		
Conclusion of Land Use and Ecological Knowledge	29		
Tourism Development in the North			
Tourism Development in Nunavik	.31		
Tourism Development in the Eastern Arctic	32		
Socio-Economic Impacts of the Park			
Kangiqsujuaq's Attitude Towards the Park Proposal	36		
Economic Impacts	37		
5.2.1 Number of Visitors and their Expenditures			
in Kangiqsujuaq	37		
5.2.2 Number of Visitors and their Expenditures			
in other Northern Communities	39		
5.2.3 Ability to Retain Expenditures: Businesses			
and Employment in Kangiqsujuaq	42		
5.2.4 Ability to Retain Expenditures: Businesses			
and Employment in other Northern			
Communities	44		
Socio-Cultural Impacts in Kangiqsujuaq	45		
5.3.1 Social Impacts of the Park	45		
	47		
Conclusion of Socio-Economic Impacts	48		
ituq	49		
Demographics	50		
	51		
	51		
6.2.2 Mineral-Related Activities	52		
6.2.3 Tourism Development	52		
6.2.4 Conclusion of Puvirnituq's Concerns	52		
	3.2.1 Native Rights 3.2.2 Access Routes 3.2.3 Wildlife in the Park 3.2.4 Pollution Conclusion of Land Use and Ecological Knowledge rism Development in the North  Tourism Development in Nunavik Tourism Development in the Eastern Arctic io-Economic Impacts of the Park  Kangiqsujuaq's Attitude Towards the Park Proposal Economic Impacts 5.2.1 Number of Visitors and their Expenditures in Kangiqsujuaq 5.2.2 Number of Visitors and their Expenditures in other Northern Communities 5.2.3 Ability to Retain Expenditures: Businesses and Employment in Kangiqsujuaq 5.2.4 Ability to Retain Expenditures: Businesses and Employment in other Northern Communities Socio-Cultural Impacts in Kangiqsujuaq 5.3.1 Social Impacts of the Park 5.3.2 Cultural Impacts of the Park Conclusion of Socio-Economic Impacts ituq  Demographics Community's Concerns about Park Proposal 6.2.1 Sport Fishing in the Park 6.2.2 Mineral-Related Activities 6.2.3 Tourism Development		

## TABLE OF CONTENTS (continued)

			Page
7.0 Monit	toring, M	litigation, and Remedial Measures	54
	Recon	nmendation 1: Information Program (Kangiqsujuaq)	54
	Recom	nmendation 2: Training Program	54
	Recom	nmendation 3: Hunting, Fishing, Trapping Rights in the Park	55
	Recom	nmendation 4: Control of Park Access, Fishing,	
		and Garbage Management	55
	Recom	nmendation 5: "Management Committee"	55
	Recom	nmendation 6: Monitoring Research Program	56
		nmendation 7: Information Program (Puvirnituq)	56
	Recom	nmendation 8: Information on Park Creation	56
References			57
Appendix 1	Social	and Economic Impact Questionnaire	61
Appendix 2	Land U	Jse and Ecological Knowledge Questionnaire	63
Appendix 3	Inform	ation on Interviewees	70
Appendix 4	Letters	to/from Salluit	71
Appendix 5	Private	Sector Businesses in Kangiqsujuaq, 1998	74
Appendix 6	Total F	Harvest, 1976-1980, Kangiqsujuaq	75
Appendix 7	Propos	ed Monitoring Program	76
Appendix 8	Maps		78
Map 2		Land Use Synthesis	79
Map 3		Location / Kangiqsujuaq	80
Map 4		Ecological Knowledge: Birds	81
Map 5		Ecological Knowledge: Fishing Areas	82
Map 6		Ecological Knowledge: Land Mammals	83
Map 7		Ecological Knowledge: Marine Mammal Hunting Areas	84
Map 7		Ecological Knowledge: Marine Mammal Basking Areas	85
Map 8		Landmarks	86
Map 8		Landmarks	87
Map 9		Travel Routes (boat, snowmobile, canoe)	88
Map 9		Travel Routes (ATV, difficult travelling)	89
Map 1		Land Use Intensity	90
Map 1		Location / Puvirnituq	91
Map 1	12	Alternative Access	92

# LIST OF FIGURES AND TABLES

		Page
Figure 1	Nunavik Population, 1950 – 1996	11
Figure 2	Nunavik Age Distribution, 1996	12
Figure 3	Kangiqsujuaq Age Distribution, 1996	16
Figure 4	Puvirnituq Age Distribution, 1996	50
Table 1	Nunavik Jobs by Sector of Activity, 1998	14
Table 2	Kangiqsujuaq Job Distribution, 1998	17
Table 3	Total Attendance at National Park (Reserves) in the	
	NWT, 1988-92	40
Table 4	Auyuittuq Visitors' Spending, 1992/93	41

#### 1.0 INTRODUCTION

#### 1.1 DESCRIPTION OF THE PROJECT

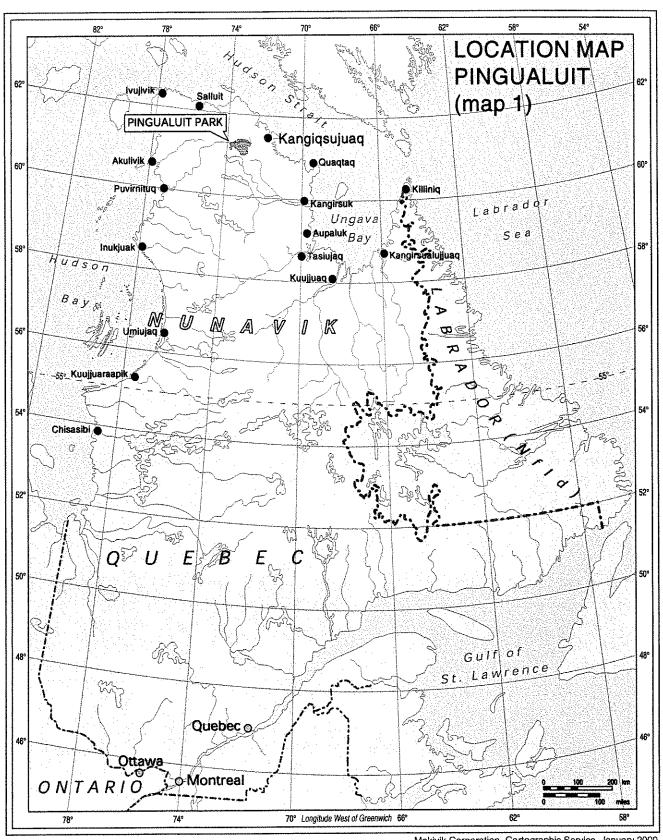
The Société de la Faune et des Parcs du Québec proposes to create a conservation park of approximately 1100 km² in Northern Quebec (Map 1) in order to protect the Cratère du Nouveau-Québec, an exceptional geological phenomenon. In a draft document, dated July 1999, Faune et Parcs presents a preliminary project description. We have summarized and translated it in the following terms:

"The proposed Park boundaries will encompass two main sites of interest: the Crater and the Puvirnituq River canyon. These sites will attract the most visitors because of their scenic properties, but they are ecologically fragile.

In order to maintain the ecological integrity of the Park, there will be no building or construction in or around the Crater. While access to the Crater will be possible by motorized vehicles, these will not be allowed within the walls of the Crater. If necessary, a path will be built to localize the effects of visitors, avoiding the destruction of vegetation.

Any authorized activities near the Puvirnituq River canyon will have to take into consideration the fragility of the environment

Access to the Park will be from the community of Kangiqsujuaq. Winter access to the Park will be done by snowmobile. This access trail will have 2 cabins, one of which will be located outside the Park boundaries. Each cabin will be capable of sleeping 12 persons comfortably. Two shelters will also be built on this access route, allowing a place for visitors to rest, warm up, and eat. These shelters could also be used for overnight accommodation in an emergency, but they would lack the comforts of the cabins.



Makivik Corporation, Cartographic Service, January 2000

Summer access to the Park is under study. The selected access route will allow for travel by all-terrain vehicles (ATV), and will therefore avoid river crossings and rocky areas. Once the final route is selected, cabins and shelters will be built, and camping areas will be designated at strategic locations along the route. Once inside the Park, visitors will hike and camp, exploring the Crater and canyon on foot. Canoeing may also be a potential activity within the Park. Visitors will not be allowed to hunt, but sport fishing in the summer and winter will be permitted. Beneficiaries of the James Bay and Northern Quebec Agreement will continue to carry out their traditional subsistence activities (harvesting of wildlife by hunting, fishing, and trapping) within the Park's boundaries.

As part of the Park proposal, an information centre will be established in the village of Kangiqsujuaq. It is foreseen that this centre will be located in the new community centre that will be constructed in town in the near future.

Finally, for emergencies and supplies, a base for seaplane will be established at Lac Laflamme."

#### 1.2 PURPOSE OF THE REPORT

In response to the draft directive of the Kativik Environmental Quality Commission (KEQC) of December 1998, this study was undertaken to identify the social and economic impacts of the Pingualuit Park project on the communities directly affected by it. More particularly, this study focuses on the community of Kangiqsujuaq, which was designated as the access point to the Park.

#### 1.3 METHODOLOGY

To accomplish this task, the following methodology was established: first, a literature review of material related to the social impacts of parks was conducted. Second,

qualitative and quantitative data on the social environment of Nunavik communities was compiled. Third, the communities of Kangiqsujuaq, Salluit, and Puvirnituq were contacted by phone. Fourth, questionnaires were built to facilitate both the land use and the social impact interviews. Fifth, field work was conducted. Finally, analysis of the data obtained from the interviews was carried out.

As the primary step of this research study, a literature review was undertaken. This review consisted of a study of published scientific data and of the most recent government documentary sources, including data gathered on National Parks in Nunavut and their impact on surrounding communities.

After the literature review, data was gathered on the social and economic status of Nunavik as a region, and more particularly on the communities of Kangiqsujuaq, Puvirnituq, and Salluit. These statistics consisted of such things as demographics, average incomes, employment rates, and levels of education, among other things.

As a third step to this study, the communities of Kangiqsujuaq, Puvirnituq, and Salluit were contacted by phone. Following these first consultations, it was decided to do field work in Kangiqsujuaq and Puvirnituq, and to exchange letters with Salluit.

Fourth, field work preparation consisted of an analysis of the KEQC guidelines and the elaboration of questionnaires. Two separate questionnaires, of the open type (Aktouf, 1992) were built in order to address individual sections of the KEQC guidelines. The first questionnaire (Appendix 1) dealt with the perceived social and economic impacts of the Park. The second questionnaire (Appendix 2) explored land use and ecological knowledge issues.

The classic method in the social sciences of interviewing, in a non-directive manner, persons of the affected communities was used (Aktouf, 1992). Several recent studies concerning the social impacts of development projects on northern aboriginal peoples use

the same approach (Koche, 1992, Dunaime et al, 1998, and North Slave Metis Alliance, 1999).

Fifth, field work consisted of travelling to the communities of Kangiqsujuaq and Puvirnituq. Upon arrival in Kangiqsujuaq, two research teams (one for land use, the other for social and economic impacts) met with the municipal council. Also present were individuals identified, for interview purposes, by the Council because of their knowledge of the community and land. During this initial meeting, the proposed Park project (as described in section 1.1) was presented, the study was explained, and a discussion period followed.



Initial meeting in Kangiqsujuaq with Council members and interviewees.

Land use interviews included four main topics of discussion: landmarks, travel routes, animal ecology, and current hunting areas. To record the data, a mosaic of 1:250,000 scale topographic maps of the region were used. Transparent plastic was used as an overlay, which allowed the hunters, using permanent markers, to draw lines or polygons identifying hunting areas, travel routes, landmarks, and so on. At the same time, the hunters' comments were recorded on tape for later transcription. Three skilled older hunters participated in the land use interviews (see Appendix 3).

Interviews regarding the perceived social and economic impacts of the Park took place in various locations around town. These interviews made it possible to collect first-hand data including, among other things, those expressing the various points of view of individuals and local or regional representatives about the project. One individual and three group interviews concerning perceived social and economic impacts were conducted, with a total of 13 people participating in this consultation (see Appendix 3). It was necessary to call on the services of interpreters recruited locally for each of the interviews conducted. The meetings were recorded in order to facilitate our work, and notes were kept to take into account certain non-verbal attitudes and to help put what was said into perspective. This interview method seeks to highlight expectations, issues and perceptions concerning the project and to anticipate its impacts (Aktouf, 1992).

In Puvirnituq, one research team met with members of the community council. The questionnaire for social and economic impacts was not used; the meeting was conducted in an open discussion manner.

As a final stage in the field work, after a telephone conversation with the president of the landholding corporation in Salluit, it was decided that meetings or field work were not necessary, and that an exchange of letters (Appendix 4) was sufficient to deal with their comments on the proposed Park.

As the final step of the study, data obtained from the communities were analyzed. Land use data were digitized and georeferenced into GIS (Geographic Information Systems) software (ArcView GIS 3.2). Before maps of the land use, animal ecology, landmarks, and travel routes were produced, the new data was cross-checked with Makivik's existing Land Use and Ecological Knowledge Database. This database was created in 1975 with the aim of interviewing as many hunters as possible in order to collect, on maps and in written text, detailed information about the patterns of historical and current land use. From its inception until 1990, 643 land use interviews were conducted, resulting in the production of 1,208 maps. Since 1990, the database has been updated on an ongoing basis.

At the same time, analysis of the interviews regarding social and economic impacts was also undertaken. Analysis of the interviews was of the direct content type, meaning that statements were taken literally and that no interpretation was done. A qualitative approach was chosen for the analysis of the interview data, and the inductive method, which consists of making generalizations from particular cases, was used (Aktouf, 1992). Moreover, in order to assess the value of perceived impacts, comparisons were made with findings from studies carried out in other Northern communities.

The impacts identified in this report are those of the interviewees, and do not necessarily include all the probable and potential social impacts of the project.

#### 1.4 JUSTIFICATION OF THE STUDY ZONE

Kangiqsujuaq has been designated as the main access point to the Park. It will receive the majority of the Park visitors, and stands to experience the most impacts.

Kangiqsujuaq is therefore the primary focus of this study.

For this study, the communities of Puvirnituq and Salluit were also considered. While the Park is not within the Puvirnituq land use area (Map 2), the community is part of this study because the Park boundaries include a section of the Povungituq River. And even if the distance to the Park is greater than from Kangiqsujuaq, the community may well become an access route to the Park, particularly if the airport is eventually extended.

Salluit was initially considered for this study because it was thought that their land use area extended into the proposed Park. However, the Park is not within their land use area (Map 2); it is also quite distant from Salluit, and not easily accessible from the community. This has been verified with Makivik's Land Use and Ecological Knowledge Database. Moreover, through conversations with representatives of the landholding corporation and the municipality, and after an exchange of letters with the landholding

corporation (Appendix 4), it became clear that Salluit was not expecting to be impacted by the creation of the Park.

Other close-by Nunavik communities were also excluded from this study because access to the Park is difficult and the Park does not fall within their land use patterns or hunting areas (Map 2).

. . . . . .

#### 2.0 EXISTING SOCIO-ECONOMIC CONDITIONS

#### 2.1 THE NUNAVIK REGION

The Nunavik region includes the territory located north of the 55<sup>th</sup> parallel in Quebec, and has a surface area of 500,164 km<sup>2</sup>. There are fourteen Inuit Communities located in Nunavik, with a total population of 8,715 persons, 89% of whom are Inuit (Statistics Canada, 1996). These communities are located between 1,500 and 2,500 kilometers north of Montreal. All but three of the communities have less than 1,000 inhabitants. There are no roads between Nunavik communities, nor roads linking Nunavik to the South. Air service provides the only year-round cargo and passenger transportation, although maritime service is available in the summer and autumn.

Inuit have inhabited the region for hundreds of years. As hunters, the Inuit have lived a nomadic lifestyle occupying all of the territory from North to South and East to West. The Inuit also used the offshore areas of Hudson's Bay, Hudson strait and Ungava Bay as far as the Labrador coast, to fish and hunt seals, walrus, and polar bear. Starting in the 1950s, the settling process led to large changes within the Inuit society, driving transition from a subsistence economy, centered on hunting, fishing and trapping, to a mixed economy, with wage earning playing an increasing role.

The region – formerly called Rupert's Land – was incorporated within the boundaries of Canada at the time of Confederation in 1867. The 1912 Boundaries Extension Act transferred jurisdiction over Nunavik to the province of Quebec, on condition that outstanding indigenous rights to the territory be settled.

In the 1970s, the Cree and Inuit went to court to contest the building of the La Grande Hydro project (part of the James Bay complex). This court challenge led to Quebec agreeing to fulfill its obligation contained in the 1912 Boundaries Extension Act, and resulted in the signing of the James Bay and Northern Quebec Agreement (JBNQA) in 1975.

This agreement is considered to be the first modern land claims agreement in Canada. It is a treaty within the terms of the Constitution of Canada, establishing an economic, political, and legal framework for the James Bay and Nunavik regions. Under the JBNQA, in exchange for far-reaching rights, the Crees and Inuit surrendered their Native rights to the Land, obtained monetary compensations, and a variety of political and economic structures were set up, all of which were to be managed by and on behalf of the Native Peoples.

#### 2.1.1 PUBLIC ADMINISTRATION

At the regional level, the Kativik Regional Government (KRG) is responsible for all of the territory not organized into municipalities; it advises local municipal councils on legal and financial matters; provides technical services to the municipalities in a variety of fields; maintains a regional police force; manages the funds of all infrastructure projects in the 14 northern villages; and administers provincial and federal vocational training programs and services.

Makivik Corporation represents Inuit with respect to all matters referring to their social, cultural, economic, and political rights, including matters related to environmental impact assessments, negotiating impact and benefit agreements with developers, renewable resource development, and a variety of local and regional economic development activities.

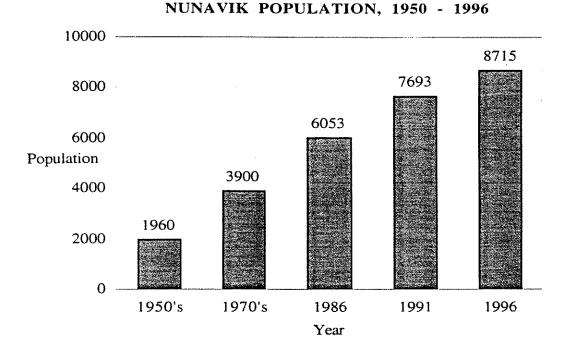
The Kativik Regional Development Council (KRDC) provides opinions on projects impacting on the socioeconomic development and the land use in Nunavik. The Kativik School Board (KSB) has the mandate to oversee the education system in Nunavik. The Nunavik Regional Board of Health and Social Services administers to health and social issues in the Region. The Avataq Cultural Institute deals with cultural, historical, and archeological matters in Nunavik.

At the local level, the municipality is responsible for all municipal services like roads. water, sewage, etc. As well, in each community except for Ivujivik and Puvirnituq there is a landholding corporation that manages Category 1 and 2 lands<sup>1</sup>.

#### 2.1.2 DEMOGRAPHICS

According to Statistics Canada (1996), between the 1950s and 1970s, the Inuit population of Nunavik practically doubled, increasing from 1960 persons to over 3900 (Figure 1). Since the mid-seventies, there has been a slowdown in the growth rate of the Inuit population in the region.

Figure 1 (Statistics Canada, 1996)



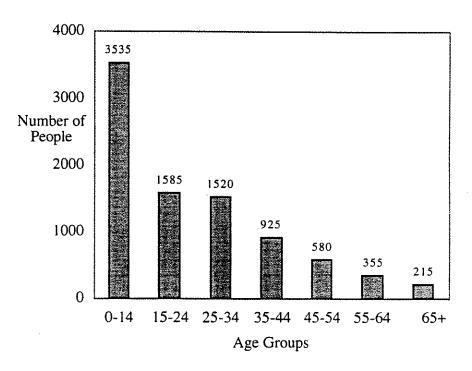
<sup>&</sup>lt;sup>1</sup> Category 1 lands are those that have been allocated to native peoples for their exclusive use. These are lands around the communities where native peoples normally reside. Category 2 lands hold no special rights of occupancy, but are where native peoples have exclusive hunting, fishing, and trapping rights (Gouvernement du Québec, 1996)

With a population of 8,715 persons in 1996, the population of Nunavik has grown 13.3% since 1991 (population 7,693). This means that population is growing approximately 2.7% per year. It is estimated that 89% of those living in the region are of Inuit origin.

A consequence of such rapid growth in the Inuit population is the large number of young people. Inuit under 15 years of age represent over 40% of the region's population, with a further 18% under the age of 24 (Figure 2,). Given the high proportion of young people, a strong pressure on the work market over the next few years is expected.

Figure 2 (Statistics Canada, 1996)

#### NUNAVIK AGE DISTRIBUTION, 1996



Based on the 1996 census of 1,745 Nunavik families, Statistics Canada estimates that 41% of Nunavik families are comprised of 5 or more persons. 75% of families include 2 parents, and almost half of these are newly married. Furthermore, the language most often spoken in the home is Inuttitut (85.6% of respondents).

#### 2.1.3 EDUCATION

In the 1940s, the federal government began providing English teaching services in Nunavik. Starting in the 1960s, the Quebec government opened schools in which courses were offered in Inuttitut for the first three years of schooling, and French thereafter. Teaching in the communities became the responsibility of the Kativik School Board (KSB) beginning in 1978. There is now one school in each Nunavik community, and courses at the secondary, primary, and even preschool levels are taught. Students are taught in Inuttitut for the first three years, and are given the choice of French or English as the language of instruction for the remainder of their schooling. However, Inuit language and culture continue to be taught throughout primary and secondary school.

School enrollment consists of over 3000 students in Nunavik's regular sector schools, with an additional 250 students upgrading their education at Adult Education schools (Makivik Corporation, 1999). According to the 1996 Census, for 33% of Nunavik's working-age population (15 – 64 years of age), the highest level of education is grade 9 or less. An additional 33% have some level of secondary education as their highest level of education, while 22% have gone on to reach their highest level in non-university post-secondary education. 12% of Nunavik's working-age population has some university education.

#### 2.1.4 EMPLOYMENT AND MANPOWER

The census of 1996 shows that the working-age population numbers 5,176 persons, while the labour force (those persons over 15 years of age who were either employed or looking for work during the week prior to the census) is comprised of 3,405 persons. Of these, 2,650 were Inuit. The unemployment rate for Nunavik residents is 13.7%, but workingage Inuit have 17% unemployment. Specifically, young Inuit residents (aged 15 – 24 years) have a high rate of unemployment at 24%.

#### 2.1.5 BUSINESS AND ACTIVIY SECTORS

The development of a salary-based economy has been largely promoted in Nunavik since the early 1960s by the intervention of the federal, provincial, and regional governments. Presently, the public and para-public (*i.e.* education and health) services account for over 60% of all full-time and 50% of all part-time employment in the region (Statistics Canada, 1996).

Table 1 shows the number and percentage of full-time and part-time jobs in the region by sector of activity for 1998. It can be seen that the major full-time employers in Nunavik are in the following sectors: Mining and Construction, Local Administration, Education, Health, and Business and Hotel. Part-time employment is mainly gained in the Hunting Fishing and Tourism, the Local Administration, the Education, the Business and Hotel, and the Mining and Construction sectors.

TABLE 1: NUNAVIK JOBS BY SECTOR OF ACTIVITY, 1998 (Makivik Corporation, 1999)

<u> </u>	ull Time		<u>Part-time</u>	
	Number	%	Number	%
Businesses and Hotels	269	12.7	193	12.9
Communications and Culture	29	1.4	52	3.5
Mining and Construction	397	18.8	181	12.1
Energy	31	1.5	17	1.1
Hunting and Fishing (Tourism)	9	0.4	273	18.3
Local Administration	381	18.0	242	16.2
Regional Administration	159	7.5	38	2.5
Provincial Administration	16	0.8	11	0.7
Education	390	18.4	205	13.7
Health	277	13.1	151	10.1
Other Services	62	2.9	7 1	4.8
Air Transportation	94	4.4	59	4.0
Total	2,114	100%	1,493	100%

#### 2.2 KANGIQSUJUAQ

The Kangiqsujuaq area has been used by Inuit for hundreds of years. It is located on Ungava Bay, approximately 100 km east of the Crater Lake (Map 3). According to Tumivut magazine (Avataq Cultural Institute, 1992), the first structure to be built in the region was an ice observation and meteorological station erected in 1884. In 1897 the bay was named Wakeham Bay by A.P. Low in honour of Captain William Wakeham, commander of a government expedition aboard the Diana. In 1910, Revillon Frères established a summer trading post, followed by an Hudson's Bay Company trading post in 1914. 1936 saw the closing of the Revillon Frères post, and the opening of the Catholic Mission. The community as we know it today started in the early 1960's with the Quebec government community housing program, the opening of the school, and the nursing station. The community had a population of 112 people in 1962. Since then, it has grown in size, population, and infrastructure.

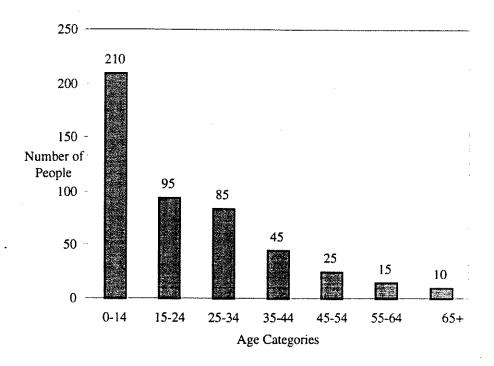
#### 2.2.1 DEMOGRAPHICS

Kangiqsujuaq is a community of approximately 515 people, 93% of whom are Inuit (Kativik Regional Government, 1999). It has a very young population, with over 60% of its residents under 25 years of age (Figure 3, next page).

Between the 1991 census and that of 1996, the community underwent a population growth of 18.6%, which compared to the rest of Nunavik (13.3%) is high. Finally, the average number of persons per household in 1996 was 4.3, which is comparable to the rest of Nunavik at 4.2.

Figure 3
(Statistics Canada, 1996)

# KANGIQSUJUAQ AGE DISTRIBUTION, 1996



#### 2.2.2 INCOME

The Census of 1996 shows that men often make more money in the village than women; their respective individual incomes being \$19,212 and \$17,354. Average income of individuals of both gender in the community was \$18,246, while Nunavik was \$20,950 and Quebec \$23,198.

#### 2.2.3 EDUCATION

According to the 1996 census, there was a total of 275 working-age community members, both Inuit and non-Inuit included. Of this number, 195 (71%) do not have a high school certificate. Of the remaining 80 persons, 10 reached their highest level of

education with the completion of high school. 25 persons finished their education without completing a post-secondary program, while an additional 25 persons gained a non-university certificate or diploma. Finally, there are 20 persons in the community who have completed university.

#### 2.2.4 EMPLOYMENT AND MANPOWER

In 1998 there were 17 employers in the community and 112 regular jobs (Kativik Regional Government, 1999). Of these regular jobs, 21% are in the private sector, 78% in the public and para-public sector, and 1% in non-profit establishments. Private sector businesses found in the community are listed in Appendix 5. Table 2 shows the number and types of jobs available in the community in 1998. It indicates that, for beneficiaries, there were 8 seasonal, 16 occasional, 39 part-time, and 48 full-time jobs in 1998. Additionally, 25 of the community's Inuit were employed at Falconbridge's Raglan mine.

Table 2:

#### KANGIQSUJUAQ JOB TYPE DISTRIBUTION, 1998

(Kativik Regional Government, 1999)

	Full-time <sup>2</sup>	Part-time.3	Seasonal <sup>4</sup>	Occasional <sup>5</sup>
Beneficiaries <sup>6</sup> Non-beneficiaries	48 18	39 7	8	16
Total Jobs	66	46	8	17

<sup>&</sup>lt;sup>2</sup> Full-time jobs are those that represent a full workload (30 hours or more per week) on a regular basis year-round or for a major part of the year.

<sup>&</sup>lt;sup>3</sup> Part-time jobs are those that represent a workload of less than 30 hours per week on a regular basis or for a major part of the year.

<sup>&</sup>lt;sup>4</sup> Seasonal jobs are defined as those that, due to fluctuations in demand, are for a definite period every year. They are often specific to certain types of activities (e.g. summer construction, or fishing and tourist guiding).

<sup>&</sup>lt;sup>5</sup> Occasional jobs are for a definite period, without being seasonal (e.g. casual workers who are on-call).

<sup>&</sup>lt;sup>6</sup> Beneficiaries are defined in the JBNQA as persons of Inuit ancestry who were born in Quebec, or are ordinarily residents in Quebec and are recognized as members of one of the Inuit communities of Nunavik. The spouses and children of beneficiaries are also considered JBNQA beneficiaries (Gouvernement du Quebec, 1996).

Unemployment levels in town are dropping. According to Statistics Canada, 1991 saw an unemployment rate of 17.9%, while that of 1996 had decreased to 11.1% (this drop in unemployment may be due in part to the number of community members working at the Raglan mine). This latter figure compares favourably to Nunavik's Inuit unemployment (17%), as well as the unemployment rate of Nunavut's Inuit (21%).

#### 2.2.5 INFRASTRUCTURES AND FACILITIES

In 1978, the Quebec Cabinet determined that the needs of northern villages with respect to sanitation and other infrastructures should be identified and short-term solutions proposed. This mandate was given to the Secretariat des affaires gourvernementales en milieu amérindien et Inuit (SAGMAI), which became the Secretariat aux affaires autochtones (SAA) in 1987.

In November 1979, the Cabinet approved the resulting report, known as the *Jolicoeur Report* after its main author. The report included several recommendations to remedy the dismal sanitary conditions that had prevailed in northern villages. Many of these recommendations have been implemented, and since then the situation in the North has considerably improved.

Kangiqsujuaq obtains its drinking water from a creek, south of the village. This creek freezes over in the winter, and the municipality then uses lake Tasialuk east of the landing strip. The KRG has slated preparation for plans and specifications for a pumping station, water line, and water treatment plant for the year 2000, with construction scheduled for 2001.

Sewage in the community is disposed in a natural lake which has been converted into a sewage pond.

Since the early 1990's, new airport infrastructures have been in operation. The airport is operated by the ministère des Transports du Québec. Its 1,065 metre runway can

accommodate Twin Otters, HS-748 or DC-3 type planes. At the present time, the community is served by Air Inuit every day of the week using 748-type aircraft. In a given day, one flight arrives from Salluit heading further South for Kuujjuaq, and another arrives from Kuujjuaq heading back to Salluit.

As for communications, there are some 60 phone lines in the community, and fax machines are becoming increasingly commonplace. The community has an FM radio station, and can receive CBC Radio. In addition, the television stations that can be received include SRC, CBC, TNI (Taqramiut Nipingat Inc.), and APTN (Aboriginal Peoples Television Network), and satellite dishes are able to bring in more channels.

The community infrastructure for recreational activities are not very developed.

Kangiqsujuaq has an indoor skating rink, a gymnasium, and a community room. A playground has also been built.

#### 2.2.6 ORGANIZATIONS

As in the rest of Nunavik, the Inuit of Kangiqsujuaq subscribe to various Christian denominations. A Catholic mission was established in 1936, and today it is the oldest building in the village. There is also an Anglican church, and in recent years new religious organizations have appeared, including the Pentecostal church.

The community has a series of committees which serve as liaisons between the population and the intervening parties of the various activity sectors. The committees and organizations in Kangiqsujuaq are as follows:

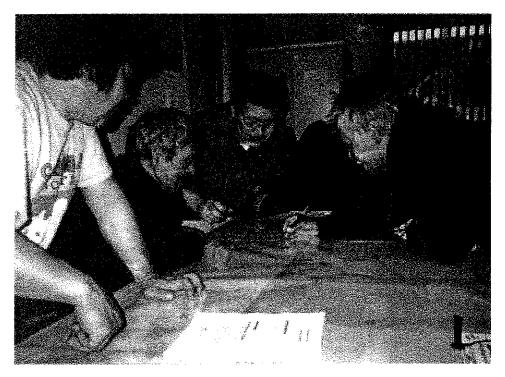
- Anguvugaapik Committee (Hunter, Fisher, Trapper Association)
- Annialinirinik Committee (Health)
- Co-operative Committee
- Corporation of the Northern Village of Kangiqsujuaq (CNVK)

- Hockey Committee
- Paurtuutik Committee (Women's Group)
- Pingualuit Committee
- Nunatuurlik Landholding Corporation
- Recreation Committee
- School Commissioners / Education Committee
- Youth Committee

. . . . .

#### 5.0 KANGIQSUJUAQ LAND USE AND ECULUGICAL KNUWLEDGE

Accurate and current information pertaining to the land use and the wildlife is required to understand the environmental and social impacts of the project. To achieve this goal, as explained in the methodology section, three older and skilled hunters (see Appendix 3) were interviewed. The data obtained from these elders was cross-checked with Makivik's existing Land Use and Ecological Knowledge Database.



Land use interview with skilled hunters in Kangiqsujuaq.

Section 3.1 presents Inuit knowledge of wildlife habitats, describes the patterns of Inuit land use, and identifies the intensity of hunting and fishing in the areas surrounding the community of Kangiqsujuaq and the Park. Section 3.2 identifies possible conflict between Inuit land use and activities related to the Park and its access.

This land use study refers to the animals that are important to Inuit livelihood. It does not refer to all animal species which may be present. It also does not take into consideration the numbers of animals harvested in the proposed Park area. The most comprehensive study of wildlife harvesting by the community was conducted in the late 1970's, and is

referred to in Appendix 6. While this study is almost 20 years old, it is the only one available. The data in that study does not specify the geographic location of wildlife harvesting, but only lists numbers of animals taken. Therefore, the data should not be used as a measure of the number of animals or levels or harvesting within the proposed Park boundaries.

# 3.1 DESCRIPTION OF CURRENT INUIT LAND USE AND ECOLOGICAL KNOWLEDGE

#### 3.1.1 BIRDS (Map 4)

Map 4, Ecological Knowledge – Birds, represents the migration routes, nesting areas, and hunting areas for a few species of birds: Canada Geese, Snow Geese, and Eider Ducks. This wildlife is hunted along the coast from 100 km south of town to approximately 150 km north, and up to 50 km inland. Most of the nesting occurs along the coast and on the offshore islands in hilly or cliffed areas. Snow geese prefer to nest in the extreme north, including Charles Island.

The migration routes of both Eider ducks and Canada Geese follow the coast closely, while Snow Geese migrate inland over the Park. All of these species migrate north in the spring, and return using the same general routes south in the fall.

#### 3.1.2 FISHES (Map 5)

Fishing for landlocked char and lake trout is done in a large, roughly circular, area measuring approximately 125 km in diameter, which is comprised of many lakes and rivers. During the summer, these fish are found at or near the coast, while during fall, winter, and spring they are found further inland.

#### 3.1.3 LAND MAMMALS (Map 6)

Land mammals refer mainly to caribou, but foxes are also included. Caribou hunting takes place all along the coast, both north and south of the community. This hunting ground, which is used in the spring and summer, extends 25 - 40 km inland from the coast. Caribou are seen to migrate through the Park and surrounding lands, moving northward in the spring and southward in the fall. It is conceivable that some caribou are hunted during the spring and fall migrations through the Park, but this does not make it a major hunting ground, and it was not mentioned by the interviewees.

Also found within the Park and its surrounding region are fox denning areas. Small pockets of denning areas are also seen close to the coast, near the community and further northward. These animals are still trapped occasionally, though according to the hunters, they are much less important to the local economy today than they were in the past.

#### 3.1.4 MARINE MAMMALS (Maps 7-A and 7-B)

Marine mammals refers to bearded seals, ringed seals, walrus, beluga whales, and polar bears. Since the hunting area for all of these animals is different than from the basking area of seals and walrus, information is presented here on two different maps: 7-A shows the hunting areas while 7-B indicates the basking areas.

As seen in Map 7-A, beluga whales are generally hunted in small bays along the coast, and Polar bears are also hunted, but these animals are found mainly on the offshore islands.

Seals are hunted all up and down the coast, ranging approximately from 75 km south to 100 km north of town. This hunting area extends from the coast out to the islands, and includes the harbours and bays. Compared to the relatively large seal-hunting grounds, walrus are mainly hunted in a small area just east of town near the islands.

Map 7-B shows that seals bask along the coastline near Kangiqsujuaq. Both bearded and ringed seals bask north and south of the community in large harbours, as well as along the western shore of the offshore islands. Finally, walrus bask only along the islands.

# 3.1.5 LANDMARKS (Maps 8-A and 8-B)

Since landmarks are numerous, for the sake of clarity, they are presented on two maps: Map 8-A includes archeological sites, burial grounds, cabins, overnight spots, and mineral exploration sites; Map 8-B shows inuksuit, beluga caches, fish caches, soapstone quarries, and areas believed to be haunted.

Most of the landmarks on Map 8-A are located along the coast, but some are also found inland. There is a cluster of cabins just south of town which are accessible by road. Within the Park there are at least 4 cabins, possibly more. These inland cabins are all found near good sources of drinking water. Overnight spots differ from cabins in that they represent areas that are not used regularly, and have no structures built upon them, but are decent places to spend the night while fishing in the area, or in cases of emergency.

Burial grounds and archeological sites are found on the coast and the offshore islands.

On Map 8-B we can see that the Inuksuit (groups of inuksuk) can be found both inland and along the coast. Coastal inuksuit are used mainly for navigation purposes, while inland ones (found in and around the Park) are used during the caribou hunt.

Beluga caches dot the coast extensively. They are found mainly close to the town site, but are located up to 100 km north on the coast. Caches of fish are also found along the coast, but are mainly along rivers. These caches, while not all being used presently, may be used again in the future. Caches marked on the map represent those that are presently visible.

Other landmarks of interest include soapstone quarries, found mainly south of the community along the coast but also inland near the Park, an old plane crash site, and finally, an area between the town and the Park which is believed to be haunted.

# 3.1.6 TRAVEL ROUTES (Maps 9-A and 9-B)

For the purpose of clarity, travel routes are represented on two maps: Map 9-A includes snowmobile, boat, and canoe routes, while Map 9-B shows All Terrain Vehicle (ATV) routes.

As seen on Map 9-A, community members travel extensively inland and along the coast. Snowmobile routes penetrate far inland, in some cases venturing over 250 km. These routes generally follow the natural drainage of the land, using rivers as corridors of passage. There are a few snowmobile routes which pass through the Park, including one which goes directly to the Crater. Many of these inland routes are used to access trap lines that extend well into the interior.

Despite the extensive web of overland routes, most travel for fishing and hunting is still done along the coast. Also, the neighbouring communities of Salluit and Quaqtaq can be visited by snowmobile in the winter and by canoe during the summer season.

Map 9-B shows that ATV routes are traveled fairly close to the town site, but do not extend far into the interior. Finally, there are some areas which were identified as encompassing dangerous travel, due to unstable ice, tidal, or topographic conditions.

# 3.1.7 INTENSITY OF LAND USE (Map 10)

An Intensity Land Use map (Map 10), which is a synthesis of all the land use data gathered from Kangiqsujuaq, is represented here in the concentric form (i.e. overlapping areas with the same centre). We can see from the map that the proposed Park area is not

intensely used by the Inuit of Kangiqsujuaq. In fact, looking at the 4 zones of land use intensity, the proposed Park lies in the medium and low intensity areas.

Kangiqsujuaq Inuit travel through the Park area, but it is not heavily used for hunting or traditional activities. Land use interviews revealed that wildlife does pass through the Park area, but none of the interviewees spoke of hunting within the proposed Park boundaries. Fishing is one traditional activity that interviewees spoke about in relation to the Park boundaries. They identified a large area, including the proposed Park, as a fishing region (Map 5). However, interviewees did not specify particular lakes or rivers in this region which were used more often than others.

### 3.2 IMPACTS OF THE PARK ON INUIT LAND USE

While present usage of the proposed Park area is not intense, local Inuit affirm that they have always used the area for traditional activities. Hence, potential impacts between the park and the land use have been identified. These impacts pertain to the rights of the Inuit to hunt and fish, to the disturbance that the access routes may cause to the wildlife, to the danger of over-fishing by tourists, and to the pollution that visitors may create.

### 3.2.1 NATIVE RIGHTS

The retention of use of the land area ascribed to the Park is extremely important. Local support for the proposed Park is based in large part on the ability to retain hunting, fishing, and land use rights within the Park boundary. The views supporting continued Inuit use of the land are seen in statements such as:

... we have been hunting there for a long time, if there is a law that we can not hunt there then there will be a lot of impacts.

And,

On the site, in Pingualuit, if new by-laws are in place against hunting, it will change us.

### 3.2.2 ACCESS ROUTES

The proposed access to the Park is an issue about which local townspeople have strong feelings. As seen in the previous section, the area between the community and the proposed Park is rich with wildlife, and is used extensively by local hunters. There is concern that visitors will disrupt the wildlife and hunting practices if Park access is not strictly controlled. It was therefore suggested by many interviewees that there be only one access route which visitors would use to enter and exit the Park. This single access route would protect the surrounding hunting grounds from excessive disturbance. Statements supporting this idea follow:

...if only one road is used by the tourists then there will be no effects on hunting. The tourists can not be all over the place.

And,

There will be no change in activities if the tourists use one trail into the Park. But if they use different places, where we used to hunt, there would be changes.

And,

One trail would be good for the community, but the tourists might want to see other places (away from the trail).

Local hunters also said that they would use the access route to the Park for other purposes. However, they stated that the route should be planned to avoid existing fish or meat caches.

Of particular interest to the local hunters was the proposed summer access route from Kangiqsujuaq by water to Douglas Harbour. It was acknowledged during consultation that this route passes close to several Inuit archeological sites and important hunting and fishing grounds. This was not perceived as a threat to the sites or fishing-hunting practices as long as strict controls are exercised.

While not questioning this view, one of the hunters proposed an alternate all-season route to access the Park (Map 12). According to him, it would be more direct and scenic than the other routes.

### 3.2.3 WILDLIFE IN THE PARK

While community members recognize that many tourists might go to the Park to fish, they stipulate that controls must be exercised:

...tourists can fish as long as there are certain limits. May have to buy license and pay for a guide.

And,

There would be no problem if the tourists have fishing licenses. But if they don't have licenses and they go fishing, it would not be good for the tourists. So they need licenses in order to fish. If they're hungry, starving, then it's okay to fish without a license.

Some local Inuit had no concerns about the depletion of fish stocks by visitors, but agreed that licenses and limits must be imposed:

It would be good if there are regulations. Also there would be more tourists if there allowed to fish. The place is large, so the fish will never run out. We have been fishing in there for a long time. Even our ancestors used to fish there.

Consultation revealed that some Inuit might object to visitors fishing in certain areas which they themselves are using. These areas were not identified, and more discussion with the community is needed to clarify which areas may be contentious:

Sometime people see white people fishing in their area and they disagree with that. So tourists have to be controlled.

With respect to wildlife, hunters perceive that Park establishment will have little impact. The area encompassed by the Park is perceived to be barren of vegetation and most wildlife, except fish; therefore, increasing the number of visitors to the area should have few effects on indigenous animal populations.

### 3.2.4 POLLUTION

One environmental concern expressed by some community members was that of pollution. There was a concern among some interviewees that increased numbers of visitors to the Park area will result in increased pollution:

We're concerned about the environment, too. We don't want the environment polluted. If they pollute the environment, even with the smallest pollution, take them to court.

Interviewees expressed the hope that Park visitors will carry out any garbage they generate, leaving nothing behind:

When they leave the crater to come back to town, they will have to carry their garbage, because that's what we do when we're camping.

This wish for the land to remain pristine was especially strong when referring to the crater and its clean water. Townspeople do not want the water contaminated by tourists:

The tourists would have to take care of the environment all around... it's pure water. No pollution in there.

### 3.3 CONCLUSION OF LAND USE AND ECOLOGICAL KNOWLEDGE

This chapter presented Inuit knowledge of wildlife habitats, described the patterns of Inuit land use, and identified the intensity of hunting and fishing in the areas surrounding the community of Kangiqsujuaq and the Park. It was seen that Kangiqsujuaq Inuit travel through the Park area, but it is not heavily used for hunting or traditional activities. Land use interviews revealed that wildlife does pass through the Park area, but none of the interviewees spoke of hunting within the proposed Park boundaries. Fishing is one traditional activity that interviewees spoke about in relation to the Park boundaries. They identified a large area, including the proposed Park, as a fishing region (Map 5).

However, interviewees did not specify particular lakes or rivers in this region which were used more often than others.

This chapter also identified possible conflict between Inuit land use and activities related to the Park and its access. These pertain to the rights of the Inuit, the access routes, the danger of overfishing, and pollution caused by visitors. The remedial measures recommended by the interviewees to alleviate or minimize the conflict are: that the Inuit have to retain their rights to hunt and fish in the Park area, and that strict controls be put into place regarding the access routes, fishing, and behaviour of visitors in, and en route to, the Park.

. . . . .

# 4.0 TOURISM DEVELOPMENT IN THE NORTH

# 4.1 TOURISM DEVELOPMENT IN NUNAVIK

Tourism and its development in Nunavik is perceived by those interviewed in Kangiqsujuaq as being beneficial for the economy of the region, for the protection of the environment and the wildlife, and for strengthening the Inuit culture.

Within a mixed economy of wage labour, transfer payments and hunting and fishing activities, the creation of a park, or better still a network of parks and reserves, that would attract more people by offering them a choice of activities, is seen as very positive for the economy of the entire Region.

Except for the Raglan Nickel Mine project, the wage-labour economy is essentially a service economy: local and regional administrations, education, health and social services. Added to this, outfitting for hunting and fishing has been part of the economy for many years but, up to now, as observed by some of the interviewees, it has been mainly concentrated around the Kuujjuaq area. Other communities have benefited little from this seasonal employment. Hence, tourism in general, more particularly ecotourism, is perceived as being a relatively new industry for the Region:

There is a lot of unemployed people. It [tourism] could benefit the whole region.

A second perceived benefit is that a park, by concentrating tourists and their activities in designated areas, protects the environment and the wildlife. A network of parks and reserves would do this even better. However for this to happen, the parks have to be well managed and the Inuit have to exercise some form of control over the decision making process:

Parks are like a buffer to development, a means to protect the environment. We have a pristine environment, it would be a way to protect it. It would be beneficial to us and to the world as a whole.

A third perceived benefit is that tourism would be advantageous for both the Inuit and non-Inuit alike: it would be a way for the visitors to learn about Inuit Culture and for the Inuit to learn about other cultures. It would also be an incentive for the Inuit to go to other areas of the region. Inuit could become tourists in their own region, thereby strengthening the relationship amongst the various communities:

Tourists would get to know our way of life. To see it is the best way to understand it.

And,

We would be happy if we could experience Nunavik tourism also, like going to Puvirnituq and seeing the river, going hunting. Tourism would not just be for outsiders, but for people all over Nunavik also. Maybe people from Kuujjuaq could come and see Pingualuit, and we could go to Kuujjuaq to hunt. It would be good to have other parks in Nunavik that I could go to see.

Those interviewed in Kangiqsujuaq, however, do prefer for the time being to concentrate their efforts on the creation of the Pingualuit Park. They feel that the Crater and the petroglyphs are unique attractions and that tourism could and should be develop around this natural phenomena and these archeological findings:

...the other communities could develop tourism but we have the Crater and the facc-masks<sup>7</sup>.

Or,

After the Park is open for about 10 years, then other projects in Nunavik should be started. We want to be more advanced (in tourism) than other communities.

### 4.2 TOURISM DEVELOPMENT IN THE EASTERN ARCTIC

The perception of tourism development as an economic benefit for Nunavik is concordant with the results of studies conducted in other parts of the Eastern Arctic. For the Northwest Territories, Hinch (1995) mentions that:

<sup>&</sup>lt;sup>7</sup> The reference here is to the petroglyphs found in a archeological site near Kangiqsujuaq. These petroglyphs are in the shapes of masks.

"The development of tourism appears to represent one of the more promising strategies which northern people can use to achieve their economic, socio-cultural and environmental goals in a sustainable context."

Based on a study carried out in 1993 by Hinch and Swinnerton, the author also confirms the view of the Inuit of Kangiqsujuaq that various activities will attract more tourists. Over the years, there has been a change in the type of tourism and the various activities that are practiced, and this trend seems to be on the increase:

"While pleasure visitors in the 1960s came primarily for fishing and hunting, today's visitors have a much more diverse range of interests including general touring and sightseeing, adventure travel and eco-tourism (Hinch and Swinnerton, 1993)."

The relation made by the Inuit of Kangiqsujuaq between the Park and environmental protection is also found in the Northwest Territories. The view that parks tend to concentrate tourists in designated areas is confirmed by Hinch when he mentions that "...the fact is that parks tend to attract and concentrate tourists in selected areas." In doing so, parks protect the environment, and this is also stated by Hinch:

"...there appears to be argument that tourism activity presents the opportunity for economic development while maintaining the integrity of the physical and cultural resource"

The Inuit of Kangiqsujuaq diverge somewhat with the view held elsewhere in Canada regarding the role Native Culture plays in attracting tourists. Based on studies carried out by Csargo (1988), Native Council of Canada (1987), and Tourism Canada (1988), Hinch mentions that the images of aboriginal people and their cultures have long been used to promote travel in Canada and its northern regions. Furthermore, the Government of the Northwest Territories has endorsed aboriginal cultures as key elements of its

attractiveness as a tourist destination and "within aboriginal communities themselves, there is a general feeling that aboriginal cultures are one of the primary attractions for visitors" (RT and Associates LTD, 1992).

While not confirming nor denying this attractiveness of the Inuit culture, it simply was not mentioned per se. Instead, the concept that was conveyed by those interviewed in Kangiqsujuaq emphasized more the exchange between cultures and, in the process, the strengthening of the Inuit culture. The Inuit would learn about others, but more importantly, others would learn about Inuit Culture. The Inuit are proud of their culture, and transmitting it would only enhance this pride:

If anything, the Park will make us more aware of our culture. It is a benefit to us to have to explain our way of life.

This perception of the strengthening of the Inuit Culture is also present in the NWT. In his discussion regarding this issue Hinch mentions that, "...the argument that tourism may actually strengthen traditional cultures is also very important".

There are counter arguments to this view: the main ones being the *marginalisation* of aboriginal participants and the negative impacts of the *commoditisation* of culture.

Marginalisation, or the isolation that aboriginal tourism operators experience from others in their community, is a counter argument that, according to Hinch, can be avoided or minimized if the Inuit have control over the management of the Park.

Commoditisation occurs when, "the culture of a community becomes part of a system of exchange (e.g. a product which has a monetary value). Expressions or manifestations of culture such as colorful local costumes and customs...come to be performed or produced for touristic consumption" (Cohen, 1988, as quoted by Hinch p. 123). Instead of strengthening a culture, tourism may turn the, "authentic into the inauthentic, destroying those things that give meaning to a culture" (Greenwood, 1977 as quoted by Hinch p.123). These issues were not referred to, directly of indirectly, by those interviewed, but

are presented here because they are part of an on-going debate of the impacts that tourism development may have on native communities.

. . . . . .

### 5.0 SOCIO-ECONOMIC IMPACTS OF THE PARK

This chapter presents the attitudes of the interviewees regarding the creation of the Park. and analyses the economic and social impacts it may have on the community of Kangiqsujuaq.

The economic impacts of a park depend on factors such as the number of visitors, the ability of the community to retain expenditures, and government policies regarding employment. The social impacts are also related to factors such as the number and type of persons visiting the village, and the inter-cultural exchange that can be established between the Inuit and the visitors. We will see how these factors, taken from experiences with other parks in the North, apply to Kangiqsujuaq.

# 5.1 KANGIQSUJUAQ'S ATTITUDE TOWARDS THE PARK PROPOSAL

The Park is a long awaited project. With the signing of the JBNQA in 1975, the Government of Quebec undertook to create the Park, and it has been the subject of more intense discussion since 1995 when the Pingualuit Park Working Group was formed. Moreover, in 1995/96 a proposal was submitted by the Nunavik Sustainable Development Corporation<sup>8</sup> to establish a research center near the Crater. This proposal stimulated further discussions in the community regarding the Park, and it was concluded that other projects be considered only after the creation of the Park.

It is safe to say that presently the attitude vis-à-vis the creation of a park is positive. The informal gathering of information done over the past few years during our frequent visits to the community, when working on other matters, confirms this view, and the interviews conducted in the community for the purpose of this research project clearly show this positive attitude.

<sup>&</sup>lt;sup>8</sup> A corporation headed by a University of Montreal professor.

### 5.2 ECONOMIC IMPACTS

From the studies conducted by Parks Canada (1983), Nickels *et al* (1991), Hinch (1995), Johnston (1995), and Budke (1999), the magnitude of economic impacts of a park on small communities is dependent on many factors: the number of park visitors and their expenditures, the ability of the community to retain and respend money earned, and the policies which will be pursued with respect to hiring and training park staff and the purchasing of goods and services.

In other words, the magnitude of visitor-related expenditures is dependent, on the one hand, on the number of people that visit the park and the services they require: food, accommodation, equipment, guiding services, etc. On the other hand, it depends on the ability of the community to offer such services.

# 5.2.1 NUMBER OF VISITORS AND THEIR EXPENDITURES IN KANGIQSUJUAQ

For some community members, expectations are high concerning visitor impact on the local economy. Some community members believe that any tourists wealthy enough to afford travel to their community will have plenty of funds to spend in town. These "wealthy tourists" are expected by some to have an obligation to spend a lot of money. One respondent speaks of the tourists' duty to spending in the following way:

They have to spend a lot of money. They have lots of money.

Conversely, some community members expect that visitor attendance and spending will be small for the first few years after Park establishment, but attendance will grow over the years:

I have small expectations at first, but expect that there will be more money later, when things are settled. I believe that the community will do well in the future with this project.

Despite the varying opinions of the amount of money the town will receive from Park visitors, there is some agreement about the destination of this money. The following statements reflect the community members' belief that money will be spent primarily on food and accommodation, handicrafts, and guiding services:

Most of the facilities that we use will get the money, like the hotel, souvenir shops, carvings.

And.

In a near future, when the project start, the coop hotel will have to be enlarged. As well the food store will have to get ready. The local people will have to make more handicrafts [to supply tourists].

And.

There is a lot of unemployment in the community, so the Park could help in the creation of jobs. There are many people who would serve as guide for tourists.

To the question of who would benefit the most from the Park, the answer given in the following terms:

It depends. If we just let it happen it will benefit certain groups. But with some control we could spread the benefits more evenly.

This money from tourists is expected by some to be distributed evenly throughout the community, with funds going to the poor and unemployed of the town.

It would help if tourists could bring good money for the town. The town would try to help the poor of the community with food and shelter.

Finally, the notion of reducing air travel costs to Park visitors was introduced as an incentive to draw tourists to the area.

It is very expensive to travel here and we need good marketing to attract people to this area. At the moment Kuujjuaq has a monopoly on tourism. We have about 5 tourists a

year and only because Kuujjuaq people fly them up here. The money is therefore going out of our community. On the other hand, if Air Inuit agrees to make a package deal then it would benefit us.

# 5.2.2 NUMBER OF VISITORS AND THEIR EXPENDITURES IN OTHER NORTHERN COMMUNITIES

The notion that incoming tourists represent a boost in local economy has been seen in other aboriginal communities. Recent surveys of several communities in the eastern Arctic demonstrate a high level of support for tourism development and a widespread belief that it would lead to substantial economic benefits within the community (Nickels et al., 1991). The level of economic benefits that a community receives, however, will be directly related to the number of tourists.

Access plays a key role in the development of tourism in the North, and can be a limiting factor concerning the number of visitors communities receive. Transportation routes enable travelers to reach northern destinations, and also encourage the establishment of tourist facilities and services. Tourism in the Canadian North is affected by a progressive increase in travel costs northward due to great distance, and this has resulted in fewer tourists, fewer facilities, and greater expense for those who do travel, compared to other countries (like Sweden) which more efficient sub-arctic access (Johnston, 1995).

In Canada, there is a major distinction in tourist numbers between primarily road-accessible destinations and those that are reached solely by air or water. Table 3 demonstrates the disparity in national park attendance of the NWT between those with road access (Wood Buffalo) and those accessible by air or water (Nahanni, Auyuittuq, Ellesmere Island). During the 1992/93 season, Northern parks accessible by air and water saw similar levels of usage: Auyuittuq had 2,719 visitor-days from 306 visitors, Ellesmere had 1,501 days from 514 people, and Ivvavik Park in the Yukon had 2,261 days from 378 visitors. Parks accessible by road, however, saw higher levels of activity: Wood Buffalo Park had 8,110 visitor-days, and Kluane Park in the Yukon had over 73,800 visitors in 1992.

Table 3

TOTAL ATTENDANCE AT NATIONAL PARKS
(RESERVES) IN THE NWT, 1988 – '92
(PG Whiting and Associates, 1995)

Year	Auyuittuq	Ellesmere	Nahanni	Wood Buffalo	Total
1988	408	105	1277	5918	7708
1989	358	234	1313	6346	8251
1990	1176	312	1009	7369	9866
1991	743	394	1403	8958	11494
1992	306	514	1404	7470	9694

Yet even if the numbers of visitors to remote parks has been small, the benefits of their spending can be important to the small communities surrounding the park. It has been observed that even a few dozen or a hundred tourists over the season can bring substantial benefits to small communities which might seem very minimal compared with other destinations:

"Although Auyuittuq National Park Reserve will aid in the tourism development of Pangnirtung, because of the small number of visitors and the limited opportunities to spend money, its absolute economic significance cannot be equated with ore southerly Canadian parks. However, the injection of even small amounts of money into a small economy such as that at Pangnirtung, where economic activities are restricted by inaccessibility and the narrow resource base, is a valued contribution (Wall and Kinnaird, 1987, p. 46)."

Attendance at Auyuittuq National Park Reserve has fluctuated since its establishment (Table 3), and has largely been seasonal, with over 80% of its visitation occurring between June and September, with July and August being the peak months. Explosive visitation growth in 1990/91 season was followed by a drop in 1991/92 visitation rates,

due mainly to the fact that too many people visited the park the previous year, effectively diminishing the wilderness experience that the tourists were seeking (Unaaq Inc., 1994).

Visitor spending in Auyuittuq has been calculated on the basis of two distinct visitor groups – adventure visitors and all other visitors (PG Whiting and Associates, 1995). The majority of visitors were adventure-related, and they spent an average of approximately \$150 per person per day. Non-adventure visitors spent approximately \$83 per person per day. The average length of stay in the park was 8.99 days in the 1992/93 season, and the total visit-days was 2,751. During this season, total attributable visitor spending was estimated to be just under \$350,000. Most of this money was spent on accommodation, food, and retail purchases (Table 4). Much of this spending occurs in the nearby communities of Broughton Island and Pangnirtung. These communities, with respective populations of 461 and 1,135 persons, are both predominantly Inuit (95%).

Table 4:

# AUYUITTUQ VISITORS' SPENDING, 1992/93

(PG Whiting and Associates, 1995)

Sector	% of Spending
Transportation	9.1
Recreation	14.0
Retail Trade	34.7
Accommodation and Food	36.6
Personal and Misc.	5.6

In addition, a 1994 report on the Initial Market Research concerning Arctic Ecotourism (Unaaq Inc., 1994) demonstrates the importance of visitor spending and spin-off benefits to small northern communities. In this report, a case study of 8 German tourists visiting an eastern Arctic community for whale watching is presented. It was found that a weeklong visit generated over \$7000 in unexpected spin-off spending. This money went mainly to local artisans.

# 5.2.3 ABILITIY TO RETAIN EXPENDITURES: BUSINESSES AND EMPLOYMENT IN KANGIQSUJUAQ

Community consultation revealed that except for the hotel and food stores, existing local business are expected to see little impact from Park establishment. Conversely, there are many opportunities for the creation of new businesses that can capitalize on the Park's potential benefits. These businesses opportunities are indirectly related to the operation of the Park, and include employment in the following sectors: retail, food, accommodation, and guiding.

Interviews in the community revealed that Park establishment is perceived as beneficial to both existing and potential businesses. However, the benefit to existing business is foreseen to be limited. Of all the presently operating businesses in the community, only the hotel and food stores were mentioned as having to expand their services and facilities to accommodate an influx of visitors. Statements like the following support this point:

In a near future, when the project start, the coop hotel will have to be enlarged. As well the food store will have to get ready. The local people will have to make more handicrafts. The job issue per se has not been discussed.

New business and employment opportunities indirectly related to the Park are seen to be numerous. Community members recognize that the majority of the employment benefits will not come directly from Park employment, but will result from efforts to exploit indirectly related jobs. For example, community members predict that a handicraft store could be supported with tourist money.

There is no craft-store in our community but tourists are always interested in buying souvenirs. A craft store might be beneficial for the community. As it stands, the Coop would benefit. The Coop has a monopoly on lodging and handicrafts, so others could be established.

Also, despite the presence of existing businesses catering to the food and accommodation needs in town, community members saw new opportunities in that sector. A new hotel, a restaurant, and the selling of traditional Inuit foods are all business ideas that were mentioned during consultation. The following statements reflect these ideas:

As a long term project, another hotel could be build. Not the coop but a private enterprise of the Pingualuit Committee.

And,

There are cooking and other courses related to restaurants are given by KRG. People will have to take these courses to be ready to work in restaurant.

And,

Traditional food is something that tourists might spend money on.

One source of employment that is predicted to be significant is guiding. Interviewees believe that, due to the distance of the Park from town and unpredictable weather patterns, every tourist wanting to visit the Park will need to hire a guide from town. Guiding tourists, therefore, could be a major source of employment for community members:

The Park would be a big benefit for the community and that tourist definitely need guides because of the unpredictable weather. They would need an Inuk with them all the time.

Local guides will need to be trained in order to ensure safe practices and procedures while leading tourists to the Park. Training programs have taken place in the past in the community, and presumably they could be revived and updated.

There are many people who would serve as guides for tourists. There are already programs in place to teach people how to become guides.

Concerning the level of direct employment by the Park, the only possibility that was frequently mentioned during consultation is that related to an interpretive centre. Local Inuit feel strongly that visitors should learn about Inuit culture and lifestyles, and the interpretive centre is seen as an important teaching tool.

It would be good if they start to know our culture, and the way we live. Most of the people not from here, they don't know how we live, and they would start to know. Some of them think that we live in igloos. They will find out how we are, what kind of people we are, how we deal with life.

This is an important issue because, as stated earlier, one of the factors affecting the magnitude of economic impacts from a park is the policies which the park pursues with respect to hiring park staff. There is currently no knowledge of the expected level of direct park employment or government investment in the community.

Also, as previously mentioned, another factor affecting the town's economy is its ability to offer visitors the services they require. It is recognized, however, that in the community training is needed for townspeople to offer these services and take full advantage of the park's benefits. Furthermore, there is a desire to spread employment benefits evenly throughout the community.

# 5.2.4 ABILITY TO RETAIN EXPENDITURES: BUSINESSES AND EMPLOYMENT IN OTHER NORTHERN COMMUNITIES

As seen at the beginning of this section, the extent to which parks generate income for local communities is dependent on the hiring, training, and purchasing policies pursued by the government. These policies can increase local income by hiring local people for park positions, purchasing goods and services locally through standing agreements, and co-operating with local and regional tourism efforts.

However, staffing levels in northern national parks have been quite low, with 6.2 person-years at Auyuittuq comprised of 5 full- and 5 part-time employees in the 1992/93 season (PG Whiting and Associates, 1995). Ellesmere had 4.0 person-years of employment in the same season, employing 2 full-time and 3 seasonal workers. Ivvavik Park had the lowest level of staffing with 3.0 person years, employing 2 full- and 3 part-time workers.

While staffing levels may seem fairly low, the monetary investment in wages and salaries is quite high. During 1992 Auyuittuq spent over \$342,000 on wages, while Ellesmere generated over \$209,000. Ivvavik, with the lowest staffing level of the three parks, spent almost \$122,000 on wages and salaries.

# 5.3 SOCIO-CULTURAL IMPACTS IN KANGIQSUJUAQ

### 5.3.1 SOCIAL IMPACTS OF THE PARK

The perceived positive and negative impacts on the economy and the environment have been discussed in the preceding sections. As for the social impacts of the Park, it appears in our findings, to paraphrase Nickels *et al* (1991), that the residents of Kangiqsujuaq are reluctant to attribute socio-cultural costs to tourism but are, nevertheless, able to point to some specific negative impacts that tourism development might have on their community.

The positive cultural impacts of tourism, as mentioned in the section regarding tourism development in the North, is the strengthening of the Inuit culture, and the knowledge gained by both the Inuit and the tourists in coming in contact with each other. As for the negative impacts that may occur from such a venture, they are seen as minimal and problems could easily be resolved.

According to those interviewed in Kangiqsujuaq, it all depends obviously on the type of persons visiting the village, but if tourists respect local by-laws there should be no problems:

This will depend on the type of persons coming up. We had negative impacts before with people bringing alcohol but I try to view tourism as beneficial.

If any problems arise, it is seen that they could be easily resolved through good communications between the residents and the tourists. It is expected also, that the

tourists will be in small groups, hence easier to keep control, and the fact that tourists are in the community for a short period of time decreases the probabilities of conflicts.

These views are in line with the Nickels *et al* (1991) findings for Clyde River, where 61% of those interviewed thought that there would be no social impacts, while 23% were uncertain of the impacts. As well, the residents of Clyde River expected that the tourists would be in small groups and hence problems could easily be resolved.

The negative impacts identified in Kangiqsujuaq are related to alcohol and possible sexual relations between Inuit women and tourists. There is a concern that more alcohol may be introduced in the community and this may cause some problems.

If a lot of tourists at the same time and they bring alcohol and drugs then this may cause problems.

Nickels *et al* (1991) mention the same concerns for Clyde, "most negative impacts mentioned related to fears that tourists may break community rules. In particular there were worries about alcohol and drugs."

The interviewees underlined, however, that alcohol related problems are not new, the community has been dealing with this matter for quite a while but the arrival of tourists, more particularly if there are many, may well contribute to increase the problem.

The possibility of sexual relations between Inuit women and tourists was raised as a concern. While these relations may be wanted by the women themselves, they are perceived by some as negatively impacting the community as a whole. This view is seen in the following comment:

I'm concerned that some white people, like construction workers, have come in and young females from town go after them. You know, like natives going after white tourists. I hope that this would not happen.

Nickels et al do not mention this concern for Clyde River.

### 5.3.2 CULTURAL IMPACTS OF THE PARK

Cultural impacts of tourism development in Nunavik was discussed in the prior section entitled "Tourism Development in Nunavik". Tourism development was depicted as beneficial for both the Inuit and non-Inuit alike: it is a way to learn from each other.

The same positive perception applies for the local level: tourism in the community is seen as an opportunity for intercultural exchanges. The tourists will learn who the Inuit really are, not the stereotypical Inuit:

It would be good if they start to know our culture, and the way we live. Most of the people not from here, they don't know how we live, and they would start to know. Some of them think that we live in igloos. They will find out how we are, what kind of people we are, how we deal with life.

On the other hand, by having to teach their culture to tourists, the Inuit will become more aware of their own culture. These views are in line with what is reported by Nickels *et al* (1995) when they state that, "over half mentioned that some form of cultural exchange between tourists and community members would be a benefit".

It is perceived that tourism will develop slowly over the years. The changes in the community will therefore be slow and in any event may affect only 5 to 10% of the community. The interviewees are not expecting and do not want mass tourism. By having control over the management of the Park, they are of the opinion that there will be few cultural impacts. While this view regarding the number of tourists was not expressed as forcefully as it was in Clyde River where 60% of the 52 respondents said that there should be restrictions on the number of people travelling to Isabella Bay, it was nevertheless a concern.

### 5.4 CONCLUSION OF SOCIO-ECONOMIC IMPACTS

In summary, the interviewees have a positive attitude towards the creation of the Park. Interviews for this study and the informal gathering of information over the past few years during our frequent visits to the community both confirm that community members are looking forward to the Park's creation.

The magnitude of economic impacts of a park on small communities is dependent on many factors, including the number of park visitors, the amount of money that they spend, the services they require, and the funds to be invested by the government in the creation and operation of the park. The community of Kangiqsujuaq has high expectations of economic fallout from the Park, but it has no clear idea of the number of visitors the Park will attract or of how to retain the money that visitors will spend. Interviews revealed that community members have various notions for new businesses in town, including a restaurant, a new hotel, and guiding services, but that they also need training to fulfill these ideas.

Research from other Canadian Northern parks reveals that those requiring access by plane typically do not attract a large number of visitors. Also, most of the visitors' money is spent on accommodation, food, and retail purchases in the communities close to the parks. While staffing levels at these Northern parks tends to be quite low, the government's monetary investment in wages and salaries can be fairly high.

The social impacts of the Park are, on the whole, seen as beneficial. Tourism is seen as an opportunity for inter-cultural exchange and strengthening of the Inuit culture. It was stated that community members look forward to teaching visitors about Inuit culture, and may in turn learn more about both their own and the visitors' culture.

Interviewees were reluctant to attribute socio-cultural costs to tourism, but were able to point to some specific negative impacts that tourism development might have on their community. Concerns related to alcohol and possible sexual relations between Inuit

women and tourists were raised during the interviews, but interviewees underlined that with proper control, problems should be avoided or easily resolved through open communication with tourists.

. . . . .

### 6.0 PUVIRNITUQ

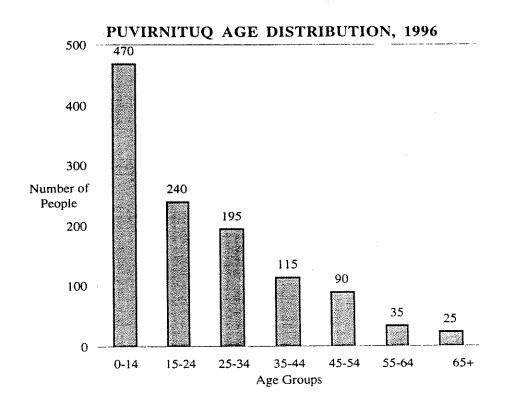
Puvirnituq is located on Hudson's Bay approximately 500 km west of Crater Lake (Map 11). In 1921, Puvirnituq was a satellite of the Hudson's Bay Company (HBC) trading post in Inukjuak. In 1951, HBC opened a general store in the area, at the same time closing its store in Akulivik, prompting many families to move to Puvirnituq. The first Catholic missionary arrived in the community in 1956, and the federal school opened in 1958 (Gouvernement du Québec, 1983).

The community of Puvirnituq did not sign the JBNQA in 1975, and does not presently have a landholding corporation.

### 6.1 DEMOGRAPHICS

Puvirnituq is a community of approximately 1,265 people, 89% of whom are Inuit (Statistics Canada, 1996). It has a very young population, with over 60% of its residents under 25 years of age (Figure 4).

Figure 4
(Statistics Canada, 1996)



Between the 1991 census and that of 1996, the community underwent a population growth of 7.1%, which compared to the rest of Nunavik (13.3%) is low. Finally, the average number of persons per household is 4.3, which is comparable to the rest of Nunavik at 4.2.

### 6.2 COMMUNITY'S CONCERNS ABOUT PARK PROPOSAL

A community councilor was contacted by phone to determine if there were any concerns about the proposed Park. The conversation revealed that councilors had concerns related to the Park, and that they had been expecting to be contacted regarding the Park establishment. Upon arrival in the community, it became clear that the councilors mainly wanted information about the Park. Once the research study was explained, however, the councilors identified three main areas of concern about the Park.

These areas of concern are: sport fishing in the Park, mineral related activities, and tourism for economic development.

### 6.2.1 SPORT FISHING IN THE PARK

Sport fishing in the Park, particularly in the Povungnituq River, is a concern raised by the community representatives.

In many Nunavik communities there are sport fishing and hunting competitions. These practices have been banned in Puvirnituq for the past 4 or 5 years due to Elders' objections. Some community members are concerned, "when it comes to playing games with wildlife". It was added, however, that "sport fishing can bring economic benefits and, in this sense, if carried on a modest scale, we are not against it."

### 6.2.2 MINERAL RELATED ACTIVITIES

The community representatives raised questions in regard to the boundaries of the Park: who set the boundaries? Why such boundaries? There was a feeling that the Park seems small and this, probably, to allow more mineral explorations. The Park includes part of the Povungituq river and if it were larger it would better protect the river.

To the question as to who set the boundaries, we explained that in consultation with the community of Kangiqsujuaq, the Pingualuit Committee reviewed the boundaries set by the JBNQA which resulted in the present proposal as shown in Map 3 of the present text.

### 6.2.3 TOURISM DEVELOPMENT

As in Kangiqsujuaq, tourism is perceived as being beneficial to the economy of the community and of Nunavik. There is, from the part of the community representatives, a strong interest in having a park around the community of Puvirnituq. A park is seen a mean to attract tourists and to further develop the economy of the community. Moreover, the creation of a park would help the community in its long standing struggle to have a larger airport. This, by facilitating access to the area, would in turn bring more tourists and make Puvirnituq an easier access to the park for tourists coming from southern parts of Canada.

## 6.2.4 CONCLUSION OF PUVIRNITUQ'S CONCERNS

In conclusion, the representatives of the community of Puvirnituq are interested in both tourism development and protecting the environment and the wildlife. Parks are seen as a mean to achieve these goals: parks attract tourists, hence invigorating the economy, and at the same they protect entire area from mineral and other developments.

Moreover, the representatives felt that they need more information regarding the creation of the Pingualuit Park. They have never received, at least formally, any information

regarding the Park proposal and they expressed the wish to be kept inform in the future. Furthermore, they would like to understand the steps that have to be taken for the creation of a park in their own area.

....

### 7.0 MONITORING, MITIGATION, AND REMEDIAL MEASURES

In conclusion, we would like to bring forth the following recommendations in regards to monitoring, mitigation, and remedial measures for both Kangiqsujuaq and Puvirnituq.

## For Kangiqsujuaq, we make the following six recommendations:

As seen in section 5.2, titled "Economic Impacts," the economic spin-off of a park may be quite important for a small community. This spin-off depends on various factors, such as, on the one hand, the number of tourists, the services they require, and the jobs to be created, and on the other hand, the ability of the community to offer the needed services.

In Kangiqsujuaq there were high economic fallout expectations, but at the same time there is little knowledge regarding the expected number of tourists, the type of services required, the type of jobs to be created, and the amount of money to be invested by Quebec to create and operate the Park.

**Recommendation 1:** It is recommended that an information program be set up for the community to acquire a better and thorough understanding of the consequences of a park.

Furthermore, the lack of training in the "art" of offering professional services to tourists was acknowledged by many of the interviewees.

As it stands, therefore, Kangiqsujuaq lacks the knowledge to organize itself in order to be able to reap the benefits stemming from the Park.

**Recommendation 2:** It is recommended that a training program be put into place as soon as possible.

Hunting, fishing and trapping is an intrinsic part of the Inuit culture, and it was clearly stated that the rights to continue hunting, fishing, and trapping within the boundaries of the Park have to be recognized by Quebec.

It was not clear for those interviewed where Quebec stands on this issue. This is an important issue that has to be dealt with very early in the process.

**Recommendation 3:** It is recommended that the matter of hunting, fishing and trapping rights within the Park be clarified before the Park is created.

The Park may impact the environment and wildlife, and some of these impacts were identified by the interviewees. To avoid these foreseen impacts, we make the following recommendation.

**Recommendation 4:** It is recommended that the Park access be strictly controlled. If feasible, there should be only one access route to the Park. In fact, one of the hunters suggested a scenic all-season route to access the Park (Map 12) as an alternative to the proposed summer access route. Additionally, controls have to be put into place regarding fishing in the Park, as well as with the management of garbage that tourists may leave behind in the Park.

Many of the foreseen and unforeseen social and economic impacts have to be avoided or minimized. In order to do this, the following recommendation is made.

Recommendation 5: It is recommended that a "Management Committee" be set up in which the Inuit of the community play a major role. The mandate of this committee would be to oversee all matters related to the management and operation of the Park. In order to function properly, the committee has to be adequately funded by Quebec.

Finally, the environmental, social, and economic impacts discussed in this study are those foreseen by the interviewees in Kangiqsujuaq. In order to assess the value of these

views, we have compared them with findings of studies conducted in other areas of the Eastern Arctic. It remains that, as any other predictive study, it is not always possible to foresee the extent of the impacts, nor to determine all of the "real" impacts.

**Recommendation 6:** It is recommended that under the direction of the "Management Committee" a research program be initiated to monitor, on a continuous basis, the social, economic, and environmental impacts of the operation of the Park (Appendix 7).

### For Puvirnituq, we have two recommendations:

The community has been expecting to be contacted regarding the park, and there is a desire to be kept informed of the entire Park establishment process.

**Recommendation 7:** It is recommended that the community of Puvirnituq be kept informed, on an ongoing basis, of all the activities related to the creation of the Park.

Community representatives showed a strong interest in having a park in the area of Puvirnituq. However, they would like to be informed of the steps that need to be taken towards this goal.

**Recommendation 8:** It is recommended that Faune et Parcs inform the community of Puvirnituq as to the process of creating a park in their area.

. . . . .

### References

Aktouf, Omar

1992

Methodologie des Science Sociales et Approche Qualitative des Organisations, Presses de l'Université du Québec, Sainte-Foy, Québec.

Avataq Cultural Institute,

1992

Tumivut Magazine #3, Inukjuak, Quebec.

Budke, Isabel

1999

A Review of Cooperative Management Arrangements and Economic Opportunities for Aboriginal People in Canadian National Parks. Parks Canada, Vancouver.

Burdge, Rabel J.

1995

A community guide to social impact assessment. Social Ecology Press, Middleton, Wisconsin.

Cohen, E.

1988

Authenticity and commoditisation in tourism, *Annals of Tourism Research.* **15**: 371-385.

Csargo, L.

1988

Indian tourism overview. Policy Development Branch, Economic Development Section, Indian and Northern Affairs Canada, Ottawa.

Duhaime, Gérard, Martin Thibault, Pierre Fréchette, Véronique Robichaud

1998

A perception study of the socioeconomic impacts of the Grande-Baleine feasibility study on the inuit communities of Kuujjuarapik and Umiujaq, GETIC, Université Laval, Quebec, Quebec.

Faune et Parcs

1999

Description du projet préliminaire: parc des Pingualuit. Draft document, July.

Greenwood, D.J.

1977

Culture by the pound: an anthropological perspective of tourism as cultural commoditisation. In Smith, V.L., ed., *Hosts and guests: the anthropology of tourism*. University of Pennsylvania Press, Philadelphia, pp. 129-138.

Gouvernement du Québec

1983 Le nord du Québec: profil régional, Québec, Québec.

1996 James Bay and Northern Quebec Agreement and Complementary

Agreements, 1997 edition. Sainte-Foy, Quebec.

Hinch, T.D.

Aboriginal people in the tourism economy of Canada's Northwest

Territories. In Hall, C.M., and Johnston, M.E., ed., Polar tourism: tourism

in the arctic and Antarctic regions. John Wiley & Sons, Chichester,

England, pp. 115-130.

Hinch, T.D., and G.S. Swinnerton

1993 Tourism and Canada's Northwest Territories: issues and prospects,

Tourism Recreation Research. 18(2): 23-31.

James Bay and Northern Quebec Native Harvesting Committee

1998 Final Report: Research to establish present levels of harvesting for the

Inuit of northern Quebec. 1976 – 1980. James Bay and Northern Quebec

Native Harvesting Committee, Quebec City, Quebec.

Johnston, M.E.

1995 Patterns and issues in arctic and sub-arctic tourism. In Hall, C.M., and

Johnston, M.E., ed., Polar tourism: tourism in the arctic and Antarctic

regions. John Wiley & Sons, Chichester, England, pp. 27-42.

Kativik Regional Development Council

Nunavik Regional Private Business Directory, vol. 1, no. 2, Kuujjuaq,

Quebec.

Kativik Regional Government

1995 1995 Labour Market Survey, Kuujjuaq, Quebec.

1999 Labour Market Statistics., Employment and Training Department,

Lachine, Quebec.

Makivik Corporation

1999 Nunavik at a glance. Economic Development Department, Kuujjuaq,

Quebec.

Native Council of Canada

1987 An inventory of Métis and non-status Indian tourism opportunities.

Ottawa.

Nickels, S., S.Milne, G.Wentzel

1991

Inuit perceptions of tourism development: the case of Clyde River, Baffin Island, NWT, *Etudes/Inuit/Studies*. **15**(1): 157-169.

North Slave Metis Alliance

1999

Environmental, Social, Economic and Cultural Concerns: a companion to the comprehensive study report on the Diavik diamonds project, Yellowknife, NWT.

Parks Canada

1983

Social and economic action plan: an examination of the potential impacts and socio-economic strategy for the establishment of a national park reserve on Northern Ellesmere. Parks Canada, Socio-Economic Division, Winnipeg.

P.G. Whiting and Associates

1995

Visit profile and economic impact statement: northern national parks (reserves) and historic sites, 1994 summary report. Prepared for Strategic Research and Analysis Directorate and Parks Establishment Branch, Parks Canada. Ottawa.

R.T. and Associates

1989

Economic development and tourism programs: A review and assessment. Prepared for the Special Committee on the Northern Economy, Yellowknife, NWT Legislative Assembly.

Roche

1993

Falconbridge Raglan Project: environmental impact study, Sainte-Foy, Quebec.

Shephard, Anne

1998

Post-Project Impact Assessment and Monitoring. In Porter, Alan, and Fittipaldi, John, J., eds. *Environmental methods review: retooling impact assessment for the new century*, Army Environmental Policy Institute, Fargo, North Dakota, pp. 164-170.

Statistics Canada

1996

1996 Census, Government of Canada, Ottawa,

Tourism Canada

1988

The native tourism product: a position paper. Government of Canada, Ottawa.

Unaaq Inc.

1994

Arctic ecotourism: initial market research. Ottawa, Canada.

Val, E.

1990

Parks, aboriginal peoples, and sustainable tourism in developing regions: the international experience and Canada's Northwest Territories. In Vining, J., ed., *Social science and natural resource recreation management*. Westview Press, Boulder, pp. 219-243.

Wall, G., and V.Kinnaird

1987

Auyuittuq National Park Reserve visitor survey 1984-1986. Department of Geography, University of Waterloo, Waterloo, Ontario/Visitor Activities Branch, Environment Canada, Hull, Quebec

### **APPENDIX 1:**

### SOCIAL AND ECONOMIC IMPACT QUESTIONNAIRE

### **INTRODUCTION**

Introduction and informed consent

- Introduction of participants
- Consent to be interviewed and for taping

Explanation of the social impact study and its purpose

Description of the park project

### Interviewee ID:

name

gender

age

iob

civil status

location of interview

language used

group or individual interview

duration of interview

### Participation in the Committee

Have you participated in the Pingualuit Committee?

Have you been consulted on the establishment of the Park?

Have you heard about the establishment of the park?

### SHARED USE OF THE PARK (LAND USE)

Do you think that the park is going to attract many visitors? How many?

Will the way tourists access the park affect your hunting and fishing (land use)?

Will tourist activities within park affect the way you use the land (hunting and fishing)?

For example, tourists fishing, hiking, camping.

Will tourist fishing affect the resource? How can it be controlled?

### **ECONOMIC IMPACTS**

Do you think that the park is going to create jobs for the community?

How many? What kinds of jobs? (labour, skilled, language skills) Permanent or temporary? Is training going to be necessary?

Do you think that the park creation will increase the income of existing businesses in the community?

Do you think that tourists are going to spend a lot of money in the community?

Do you think that new businesses are going to be created? What type?

### SOCIAL IMPACTS

Will the park be beneficial for your family?

Will there be any negative impacts on the community?

For example, an increase in alcohol and drug use?

Will the park affect Inuit culture?

If so, what measures can be taken to minimize these impacts?

How will the presence of tourists in Kangiqsujuaq affect the community?

### TOURISM DEVELOPMENT

Do you think that tourism in Nunavik should be further developed? How?

What kind of tourism should be developed?

- eco-tourism (hiking, camping, skiing, dog sled, photography)
- hunting
- fishing

What will be the effects on Nunavik of such development?

### **APPENDIX 2:**

### LAND USE AND ECOLOGICAL KNOWLEDGE QUESTIONNAIRE

### **CURRENT USE MAP**

### Part 1 – TRAVEL ROUTES (No historic time limits)

### DOGTEAM (Winter, Early Spring, Late Spring)

- Which routes can you only travel by dogteam and not by skidoo?
- What months is it no longer safe to travel on the ice?
- What months is it no longer possible to travel by land?
- In the fall, when can people usually start traveling on the sea ice?

### SKIDOO routes (Winter, Early Spring, Late Spring)

- Which routes can you only travel by skidoo and not by dogteam?
- What months is it no longer safe to travel on the ice?
- What months is it no longer possible to travel by land?
- In the fall, when can people usually start traveling on the sea ice?

### WALKING

### GENERAL TRAVEL INFORMATION

- What landmarks do you use to tell direction?
- Where are there overnight spots?
- Identify any dangerous areas of travel.

### Part 1.1 – TRAVEL ROUTES IMPACT ASSESSMENT

With the park and the park's activities, will you have to change your travel routes? IF YES, where those new travel routes will be relocated?

### Part 2 - LANDMARKS (No historic time limits)

### ARCHEOLOGICAL SITES

- Where?
- Any specific characteristics about the site?
- How "old" is it?
- Any tent rings? Stone houses?

### CACHE

- Where?
- What was cached there?

### GRAVE

- Where?
- Who?
- How many graves?

### **INUKSUK**

- Where?
- Several or single?
- Purpose (caribou hunting, navigation)?

### DRINKING WATER SITE

- Where were people living who used this area?
- Place where water is especially good....why?

### **MEETING SITES**

- Where?
- Who used to meet there?
- During which season?
- For how long did people stay there?
- What did people do there?
- Do you remember a story about that place?

### OIL DRUM SITES

- Where?
- Are there many?
- Empty or full of oil?
- Who do they belong to?
- Are they a danger to nearby lakes, rivers, or wildlife?

### SHIP WRECK

- Where?
- Who's boat?
- How long has it been wrecked? Since when?
- What was its cargo?

### TRADING POST

- Where?
- Name?
- What year was it established?
- People from which settlements used to go there?
- When did it close down?

### SOAPSTONE QUARRIES

- Where?
- How long has it been used?

### LANDMARKS

- Is there a special feature of the land which is important to write down?
- Any special areas for the people or resources as a historical site?
- Any haunted areas you don't like to use?

### CABINS

- Any cabins for special use?
- Tourist cabins?
- Hunter support cabins?
- Ranger or Junior Ranger training camps?
- Future clean-up sites?

### Part 2.1 – LANDMARKS IMPACT ASSESSMENT (not to be cartographied)

If some of those previous landmarks are inside the park limit or along proposed access roads, ask the following questions depending of the landmark category.

### CACHES:

Will you relocate your cache if they are inside the park or along access road?

### **GRAVES:**

Should we indicate the burial ground for visitors?

### DRINKING WATER SITES:

Should these sites be clearly indicated?

### **MEETING SITES:**

Would you allowed visitors to use those sites as camping site?

### CABINS:

Are those cabins available to visitors, could they be rented by visitors? Should they be use as emergency shelter? IF YES, should they be mark on map?

### Part 3 – CURRENT HUNTING and FISHING ACTIVITY (3 years back)

### FISH

- Arctic Char
- Spring
- Summer
- Fall
- Winter
- Landlocked Char

- Spring
- Summer
- Fall
- Winter
- Lake Trout
- Spring
- Summer
- Fall
- Winter
- Whitefish
- Spring
- Summer
- Fall
- Winter

### RINGED SEAL

- Spring
- Summer
- Fall
- Winter

### BEARDED AND HARP SEALS

- Spring
- Summer
- Fall
- Winter

### BELUGA

- Spring
- Summer
- Fall
- Winter

### WALRUS

- Spring
- Summer
- Fall
- Winter

### EIDER DUCKS

- Spring
- Summer
- Fall
- Winter

### CANADA GEESE and SNOW GEESE

- Spring
- Summer
- Fall
- Winter

### **CARIBOU**

- Spring
- Summer
- Fall
- Winter

### POLAR BEAR

- Spring
- Summer
- Fall
- Winter

### FOX-

- Spring
- Summer
- Fall
- Winter

### TRAPPING

- What animals?
- Where? Which routes?

### **CAMPING**

- Where are your campsites?
- What seasons do you use these sites?

### Part 3.1 – CURRENT HUNTING and FISHING ACTIVITY IMPACT ASSESSMENT

If some of the previous "species lines" are inside the park limit or along proposed access road, ask the following questions depending of the landmark category.

### About land mammal:

Do you think animal's habitat or movement route will be affected by the park and its access road? IF YES; where those habitat and movement route will be displaced.

### About migrating bird:

Do you think animal's migration route will be affected by the park and its access road? IF YES; where those migrating route will be displaced.

### About See mammal:

Do you think animal's habitat or movement route will be affected by the park's access road? IF YES; where those habitat and movement route will be displaced.

### ANIMAL ECOLOGY

### **BASKING AREAS**

- Ringed Seal
- Bearded Seal
- Harp Seal
- Walrus

### MIGRATION ROUTES

- Canada Geese
- Snow Geese
- Caribou
- Ducks

### **NESTING AREAS**

- Eider Ducks
- Canada Geese
- Snow Geese

### **DENNING AREAS**

- Fox
- Polar Bear

### ANIMAL ECOLOGY IMPACT ASSESMENT

### **BASKING AREAS**

Do you think some basking areas might be disturbed by park's activities? IF YES, what could be done to avoid those disturbances?

### MIGRATION ROUTES

Do you think some migration routes might be disturbed by park's activities? IF YES, what could be done to avoid those disturbances?

### **NESTING AREAS**

Do you think some nesting areas might be disturbed by park's activities? IF YES, what could be done to avoid those disturbances?

### **DENNING AREAS**

Do you think some denning areas might be disturbed by park's activities? IF YES, what could be done to avoid those disturbances?

### APPENDIX 3: INFORMATION ON INTERVIEWEES

<u>Interview</u>	Name:	Gender	Occupation:	Age:
Municipal Council	1-A 1-B 1-C 1-D 1-E 1-F	M M M F M	Mayor Councilor Councilor, HFTA Councilor Councilor Secretary/Treasurer	25 28 40 51 52 29
Nunatuurlik Landholding Committee	2-A 2-B	M M	Landholding Landholding	51 30
Youth Committee	3-A 3-B 3-C 3-D	F F M F	Municipal Receptionist	19 21 22 19
Elder	4-A	M	Hunter	71
Land Use	5-A 5-B 5-C	M M M	Hunter Hunter Hunter	71 52 68

APPENDIX 4: LETTERS TO/FROM SALLUIT



Kuujjuaq, January 27th, 2000

Mr. Paul Papigatuk, President, Qarqalik Landholding Corporation, Salluit, Québec JOM 1SO

FAX: 819 255-8864

Dear Mister Papigatuk,

Following our telephone conversation of last week, I am writing to you regarding the Pingualuit Provincial Park Proposal. As I explained to you, I was mandated by Faune et Parcs Québec to carry out the social and economic impact study of the creation of the said park.

As you already know, the community of Kangiqsujuaq will be the entry point to the Park. The Pingualuit Committee, comprise of representatives from Faune et Parcs, Makivik, KRG and Kangiqsujuaq, has been formed to see to the creation of the Park, to delineate its boundaries, to identify the best access and to keep the community inform. In short, the Committee is contributing to the drawing-up of a proposal.

The Park's proposal, however, has to be assessed by the KEQC. The KEQC has issued guidelines for an environmental and social impact study (ESIS). My mandate from Faune et Parcs is to do the social aspect of the ESIS. The environmental study and the social study will be integrated into one document by Faune et Parcs and this ESIS will be submitted to KEQC for review.

Kangiqsujuaq is at the center of this study. In preparing my work however, I thought that Salluit and Puvirnituq should be contacted, if not visited, in order to gain a better understanding of their perceptions of the social and economic impacts, if any, of such a park on their respective community.

As agreed with you over the phone, I am asking if you could review with your directors if there are any interests or concerns regarding the Park's proposal.

Since I would like to include this letter and your response in the study, would you be kind enough to reply in writing.

Yours Truly,

Robert Lanari Project Director

Tél. (819) 254-8878

Fax (819) 254-8706 Fax (514) 634-3817

Fax (418) 522-2636



Salluit, February 3, 2000

Mr. Robert Lanari Project Director Makivik Corporation Makivik Corporation Kuujjuaq, Quebec JOM 1CO

Sent by fax to 819 964 2613

Regarding: Pingualiut Park Project

Dear Monsieur Lanari:

In response to your letter dated January 27<sup>th</sup>, and pursuant to the board meeting of February 1, 1 am presently able to elaborate the position of our community in regard to the Pingualiut Park Project.

In general, our feeling is that the realization of a provincial park in the crater area will have minimal impact on the social/economic milieu, in relation to Salluit.

However, in the event that activities stemming from the tourism in that sector start to extend to areas closer to our territory, we would reserve the right to have at least a say in the possibility of such activities ( if activities are extended due south of us, or if Deception Bay becomes involved, for example.

For the purposes of the crater and immediate surroundings, we support the efforts of Kangirsujuaq to diversify it's economy.

In hope this letter will clarify our position to your satisfaction. If, however, further information or comments are required, I'd be glad to provide such information at your request.

Sincerely,

QARQALIK LANDHOLDING CORPORATION

Paul Papigatuk President

### **APPENDIX 5:**

### PRIVATE SECTOR BUSINESS IN KANGIQSUJUAQ, 1998°

**Business Name** 

**Business Activities** 

Ammuumajuq Adventures Inc.

Tourism – Outfitting

Tourism - Adventure

Mark Tertiluk

Arts and Handicrafts

Mary Argnak

Hotel and Lodging

Pitaavik Reg'd

Convenience Store

Puasi Uqittuq

Garment Manufacturing Arts and Handicrafts

Puulik Qisiiq

Fuel and Petroleum Products

Wakeham Bay Cooperative Association

General Retail Hotel and Lodging

Hardware

Wakeham-Moto Inc.

Snowmobile and ATV Parts

<sup>&</sup>lt;sup>9</sup> Source: Kativik Regional Development Council, 1998

APPENDIX 6: TOTAL HARVEST, 1976-1980, KANGIQSUJUAQ\*

Species	1976	1977	1978	1979	1980	Total Harvest	5-year Average
Dingad Cont	4,740	2,624	1 217	2.451	2 105	12 222	2 665
Ringed Seal Bearded Seal	213	2,624 92	1,313 64	2,451	2,195	13,323 562	2,665 112
	58	92 61	04 27	98	95		36
Harp Seal	<i>3</i> 6	01		15	18	179	
Ranger Seal	98	=	1	1	8	16	3
Beluga Whale		118	62	74	37	389	78
Walrus	4	8	0	0	9	21	4
Polar Bear	4	8	16	10	9	47	9
Caribou	71	139	227	184	235	856	171
Wolf	0	0	0	0	0	0	0
Arctic Fox	237	569	1,335	421	127	2,689	538
Snow Goose	429	88	24	175	363	1,079	216
Canada Goose	319	96	59	239	283	996	199
Brant and Duck	1,203	528	252	565	577	3,125	625
Duck Eggs	3,316	6,994	1,182	2,592	2,025	16,109	3,222
Goose Eggs	_+	_	_	30	42	72	36
Murre	672	341	36	80	8	1,137	227
Guillemot	338	109	32	59	16	554	111
Loon	27	11	5	34	215	292	- 58
Arctic Hare	126	69	85	52	31	363	73
Grouse/Ptarmigan	2,179	2,093	1,695	2,670	1,681	10,318	2,064
Snowy Owl	4	19	16	10	0	49	10
Arctic Char	10,426	8,141	6,340	9,975	15,650	50,532	10,106
Salmon	4	0,1.11	0,5 10	0	0	4	1
Lake Trout	755	950	630	563	405	3,303	661
Codfish	31	8	11	7	8	65	13
Whitefish	3	0	0	ó	0	3	1
Brook Trout	73	23	0	7	ol	103	21
Sculpin	2,376	540	763	657	708	5,044	1,009
Land-locked Char	519	264	138	223	108	1,252	250

<sup>\*</sup> Source: James Bay and Northern Quebec Native Harvesting Research Committee, 1998

<sup>\*</sup> No data available.

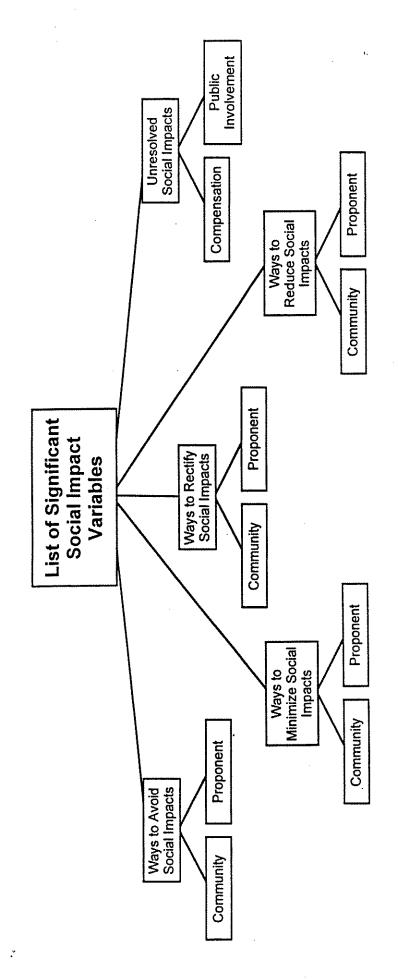
### APPENDIX 7: PROPOSED MONITORING PROGRAM

According to Shephard (1998), there are three main reasons for the importance of monitoring. Firstly, it determines whether agencies implemented the promised mitigation measures and whether these measures were effective. Second, monitoring improves project outcomes through adaptive management. Third, monitoring compares the actual effects of a project to its predicted effects.

Shephard (1998) defines 7 types of monitoring depending on the purpose for which it is undertaken. Here we are suggesting impact monitoring, which is defined as being "the measurement of environmental [social] variables during project construction and operation to determine the changes which may have occurred as a result of the project." There are "no prescribed or generally accepted monitoring methods," (Shephard, 1998), but we recommend following the National Environmental Policy Act (NEPA) Process, which includes the participation of the affected communities at all stages of the monitoring program. This NEPA Process, as referenced in Burdge (1995), can be represented in the following manner: (see next page).

As an added note, we can say that to gather a "List of Significant Social Impact Variables," qualitative and quantitative data regarding the community has to be gathered on a regular basis. The same approach is used for environmental and economic impacts.

Mitigation of Identified Social Impacts (A Mitigation/Monitoring Strategy from the NEPA Process)



Source: Burdge, 1995.

**APPENDIX 8:** 

MAPS

## (map 2) Kangiqsujuaq 200 Kilometers 32 100 ß Hudson

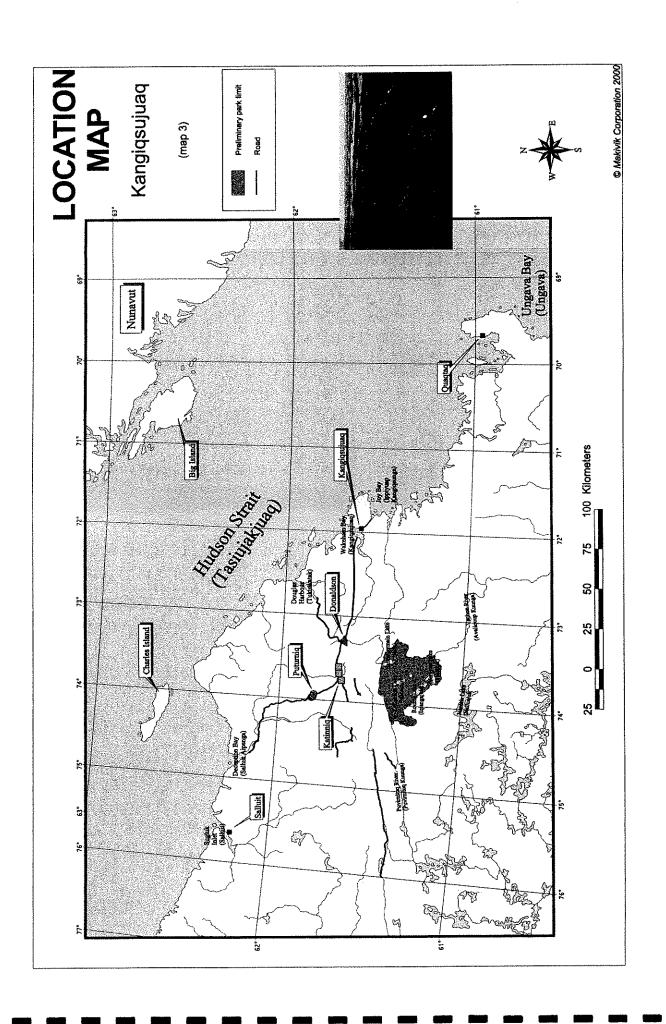
## KANGIRSUK QUAQTAQ PUVIRNITUQ & SALLUIT LAND USE **IVUJIVIK**

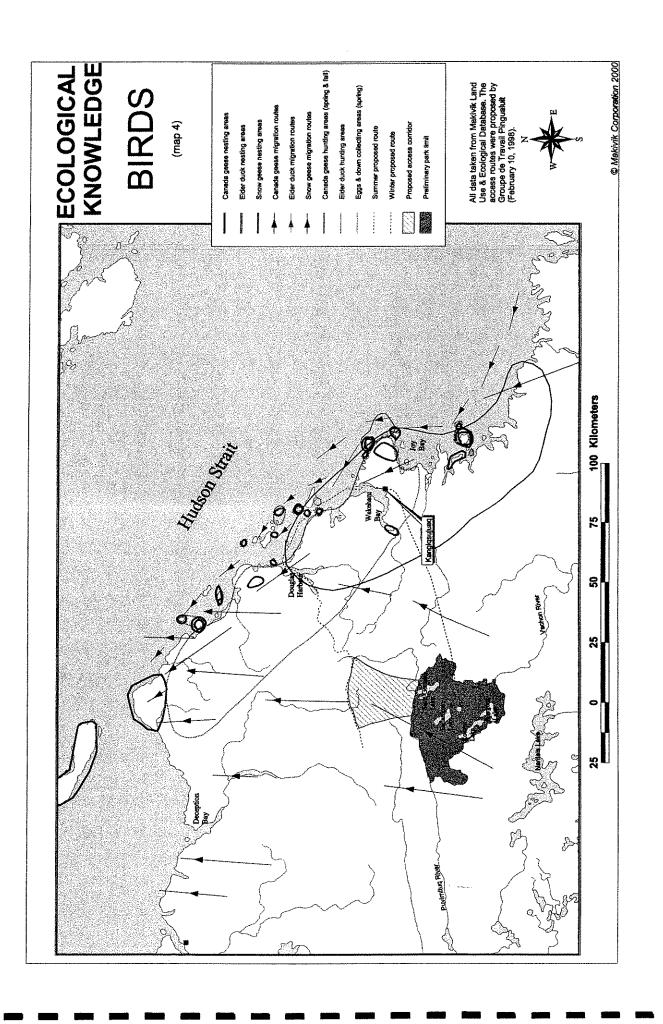
Composite Map

Proposed access corridor Summer proposed route Preliminary park limit Kangirsuk land use Puvimituq land use Queqted land use lvujivik land use Salluit land use

All data taken from Makkvik Land Use & Ecological Database. The access routes were proposed by Groupe de Travail Pingualuit (February 10, 1998).







# Arctic char (spring) (1) S 100 Kilometers 않 25

# ECOLOGICAL KNOWLEDGE

## FISHING AREA

(map 5)

Proposed access corridor Arctic char (fall & winter) Summer proposed route Winter proposed route Preliminary park limit Arctic char (summer)

All data taken from Makivik Land Use & Ecological Database. The access routes were proposed by Groupe de Travall Pingualuit (February 10, 1998).



# 100 Kilometers

## ECOLOGICAL KNOWLEDGE

# LAND

(map 6)

Cartbou migration routes

Cartbou hunting area (surtriner & spring)

Fox denning areas

Surmer proposed route

Winter proposed route

Proposed access confloor

All data taken from Makivik Land Use & Ecological Database. The access routes were proposed by Groupe de Trevail Pringualuit (February 10, 1998).

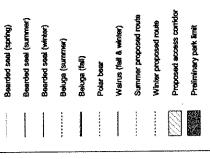


# 100 Kilometers 8 52

# **ECOLOGICAL** KNOWLEDGE

# MARINE MAMMAL (map 7 - A)

HUNTING AREAS



All data taken from Makivik Land Use & Ecological Database. The access routes were proposed by Groupe de Travall Pingualuit (February 10, 1998).



# 100 Kilometers

## ECOLOGICAL KNOWLEDGE

## MARINE MAMMAL

(map 7 - B)

BASKING AREAS

Tringed a Desiring area

Walnus basking area

Summer proposed route

Winter propo

Proposed access o

Proposed access con

Pretiminary park fimit

All data taken from Makivik Land Use & Ecological Database. The access routes were proposed by Groupe de Travail Pingualuit



Beluga caches Fish caches Plane crash site

Sospstone quarries

Proposed access carridor

Winter proposed route

Preliminary park limit

All data taken from Maktvik Land Use & Ecological Database. The acosas noutas were proposed by Groupe de Travali Pingualuit (February 10, 1998).



## Queqtac Kangiqsujuad 100 Kilometers 20 3 25 0

### TRAVEL ROUTES

(map 9 - A)

Actual boat route
Actual cance route
Actual trap lines
Proposed access contdor
Summer proposed route
Winter proposed route
Preliminary park limit

All data taken from Maktvik Land Use & Ecological Database. The across routes were proposed by Groupe de Travail Pingueluit (February 10, 1996).



### © Makivik Corporation 2000 All date taken from Makivik Land Use & Ecological Detabase. The access routes were proposed by Groupe de Travell Pringualuit (February 10, 1998). ATV routes, walking peths Proposed access corridor TRAVEL ROUTES Summer proposed route Officult travelling areas Winter proposed route Preliminary park limit (map 9 - B) 100 Kilometers 20 22

