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BACKGROUND PAPER #1 - THE
BEVERLY-KAMINARIAK CARIBOO
MANAGEMENT BOARD - A CASE STUDY OF

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Analysis/Review

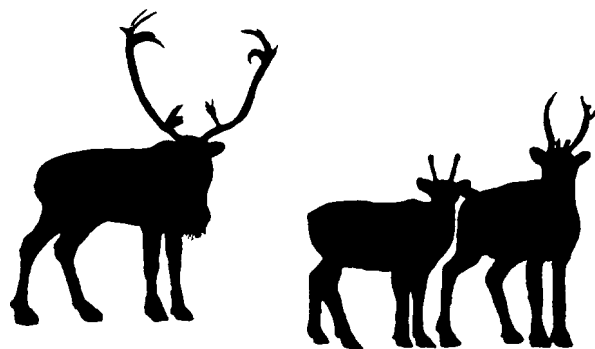
CARIBOO

Background Paper # 1

The Beverly - Kaminuriak Caribou Management Board

A Case Study of Aboriginal Participation in Resource Management

by
Petr Cizek



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**THE BEVERLY-KAMINURIAK CARIBOU
MANAGEMENT BOARD**

THE BEVERLY-KAMINURIAK CARIBOU
MANAGEMENT BOARD:

A CASE STUDY
OF
ABORIGINAL PARTICIPATION
IN
RESOURCE MANAGEMENT

by
PETR CIZEK

Background Paper #1

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CARC BACKGROUND PAPERS

The objective of this series of background papers, published by the Canadian Arctic Resources Committee, is to put into circulation information and opinion of immediate interest to researchers and policy makers. Works published in this series have received a minimum of editing by CARC, and therefore should be regarded as draft or working texts. The authors are responsible for the accuracy of the contents.

Petr Cizek was born in Prague, Czechoslovakia and graduated from the School of Urban and Regional Planning, University of Waterloo, Ontario. He **served** as a researcher on the Northern Assessment and Planning **Project**, Department of Environment and Resource Studies, University of Waterloo, under the direction of Robert B. Gibson and Robert F. Keith. Petr **Cizek** is currently enrolled in the **M.A.** program of the School of Rural Planning and Development, University of **Guelph**, Ontario.

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1 Introduction

The Issues

Renewable resource management has emerged as a critical issue in Canada's North in the 1980s. As non-renewable resource **mega-projects** declined in the late 1970s, the economic and cultural **reliance** of the aboriginal peoples of the North on wildlife harvesting became more widely understood. This strengthened an already present willingness among native leaders to criticize established government approaches to wildlife **management**. Accordingly, land-claims negotiations within the native political and cultural movement for self-determination included demands for greater native control over land and resources.

Governmental land and resource **management** in the North has *been* characterized by centralized, top-down, and non-consultative decision making with a bias in **favour** of the non-renewable resource **sector**.¹ In addition to native northerners, many other Canadians **concerned** about **northern** affairs have **become** dissatisfied with this approach and have been searching for institutional alternatives.

Much of the dissatisfaction **centres on**:

- **interjurisdictional** oversights and disputes;
- lack of cooperation among all parties;
- lack of genuine participation for all legitimate **interests**;
- lack of community-based perspectives; and
- rigid hierarchical authority systems and information flows.

By focusing upon remedies to these difficulties alternative institutional and organizational arrangements are being created and **tested**.² This study is about one such alternative, namely, the Beverly - **Kaminuriak** Caribou Management Board (**BKCMB**).

The Case Study

The **BKCMB** is a northern renewable resource management institution. The Board has a mandate to advise the **ministry** of the responsible agencies, from the Northwest Territories (**N.W.T.**), Saskatchewan, Manitoba and Canada, on the management of **two** migratory herds that cross jurisdictional boundaries. The board is comprised of government and native representatives.

The **BKCMB** is particularly **significant** as a resource management institution in the North due to three factors. **First**, it is an **innovative** institution that has created a new kind of **decision-making** structure for resource management in the North. Second, the **BKCMB** helps to illustrate some of the fundamental changes that are occurring in the highly turbulent social, economic, political, and **biophysical** environments of the North.³ Third, the **BKCMB** **illustrates** some of the problems and opportunities of **adopting** resource management institutions that are **interjurisdictional**, co-operative, participatory, community based, and non-hierarchical.

The innovative nature of the BKCMB is a factor that would merit detailed examination of the the board in its own right. The BKCMB is one of the few **resource-management** institutions **that are interjurisdictional** and involve the direct participation of aboriginal peoples. Joint management of resources across jurisdictional boundaries is often talked about in Canada, but rarely put into practice. Throughout Canada, native peoples are also demanding a greater voice in natural resource decision making that has an important impact on their lives. Thus, an examination of the BKCMB can help outline some of the problems and opportunities of both **interjurisdictional resource management**, and **native-government co-management** institutions.

By **examining the BKCMB**, significant issues affecting the Northwest Territories can be uncovered. These include the commercialization of wildlife, the effectiveness of the caribou protection measures, the implementation of the Northern Mineral Policy, land-use permitting and water licensing on the caribou range, the **devolution** of federal responsibilities to the Government of the Northwest Territories (e.g., **fire fighting**), and the impact of the **Tungavik Federation of Nunavut (TFN)** and **Dene-Métis** land claims on the management of caribou.

The BKCMB has already created several important links with different resource management processes and institutions while concentrating on the conservation of caribou. The BKCMB has **linked** caribou conservation to habitat protection (fire fighting), education (the **Barren** Ground Caribou Schools Program), and external impacts (mining, low-level flight testing). The Northern Mineral Policy, which includes a review of the **Thelon** Game Sanctuary as part of the Beverly herd's calving **ground**, will be addressed in the future by the BKCMB. If current exploration permit holders in the south **Keewatin** region request land-use permits and water **licences** for mineral production, the BKCMB will probably participate in these hearings. The effectiveness of the advisory role of the BKCMB maybe **tested**, in part, by the extent to which the Caribou Protection Measures are generally **followed**, and the calving grounds in particular, **protected**. Finally, the BKCMB's involvement in regional land-use planning will be essential to maintain the BKCMB's pro-active position. Therefore, an examination of the existing and future ability of the BKCMB to forge links with other processes and institutions is helpful in formulating a comprehensive and integrated northern planning perspective.

The BKCMB thus offers an opportunity to examine some of the problems and opportunities of an innovative approach to renewable-resource **management**. This paper discusses the characteristics and experience of the board, and considers its relevance as a model for new institutions in the North.

Research Methods

This study of the BKCMB is part of a larger research initiative that seeks to evaluate environmental planning, assessment, and regulatory systems in the Northwest Territories and Yukon with a view toward **reconceptualization** and integration. Although the BKCMB's mandate is to advise ministers on caribou management in the Northwest Territories, Manitoba, and Saskatchewan, the focus of this paper is on the activities of the BKCMB that are related to the Northwest Territories.

The research included a review of the board's meeting minutes, annual reports, and back issues of its newsletter, *Caribou News*. Publications concerning theoretical aspects of wildlife management were also reviewed.

The author attended the August 1987 meeting of the BKCMB in Winnipeg, during which he observed the deliberations and interviewed several board members. Interviews

were non-structured, open-ended, and one-on-one. Board members were asked to discuss major issues confronting the board as well as their personal perspectives and opinions regarding the activities of the board. The interviews lasted between 30 minutes and two hours.

Much of the information included personal opinions regarding the functions and actions of the board. Therefore, the anonymity of board members is maintained. In cases where information is based on personal opinions, it is referenced as "Interviews with **BKCMB** members. Winnipeg. August 1987."

II Functions and Structure of the BKCMB

The Agreement

The BKCMB was created through the Beverly and **Kaminuriak** Barren Ground Caribou Management **Agreement** that was signed by the governments of **Canada**, Manitoba, Saskatchewan, and the Northwest **Territories** on 3 June 1982. According to the **agreement**, the **BKCMB's** major function is to advise the signatory governments and the traditional caribou users on "the conservation and management of the Beverly and **Kaminuriak** herds of barren-ground caribou in order to restore the herds, as far as reasonably possible, to a size and quality which will sustain the requirements of the traditional caribou **users**".⁴

The Range

The Beverly and **Kaminuriak** herds range throughout the central arctic and sub-arctic North to the **Arctic** Ocean and south to northern Saskatchewan and Manitoba. (See Map 1.) The traditional users include the **Inuit** of the south **Keewatin**, the **Métis** of northern Saskatchewan and the South Slave regions, and the Chipewyan (**Dene**) of northern Saskatchewan and Manitoba and the South Slave regions. The caribou **herds** are also used by some non-native people.

Mandate and Powers

The **BKCMB** can make recommendations to the ministers of the signatory governments in the following areas as well as other areas deemed important by the **board**:

- limitations to, and allocations of, the annual harvest;
- criteria for regulating the methods of harvest;
- methods of traditional user participation;
- caribou research proposals;
- standardized data collection and presentation, and
- a herd management plan (including predator management).

Furthermore, the **BKCMB** conducts information programs and public meetings, assesses and reports on its herd management plan, submits annual reports, and considers any other matters respecting barren ground caribou management that are referred to the **BKCMB** by the ministers.

Structure of the Board

The **BKCMB** is composed of 13 members. Five of the members represent the governments that signed the agreement. One member is appointed by each of the following ministers: Minister of Indian and Northern Affairs, Canada; Minister of the Environment, Canada; Minister of Parks and Renewable Resources, Saskatchewan; Minister of Natural Resources, Manitoba; and Minister of Renewable Resources, N.W.T.

The remaining eight members are representatives of the traditional caribou users and must be residents of the communities on the caribou range. The Minister of **Renewable Resources, N.W.T.** appoints four of the community members. Two of these represent the **Inuit** communities of the southern **Keewatin** and are appointed upon the recommendation of the **Keewatin Wildlife Federation (KWF)**.⁵ One member represents the **Chipewyan** communities of the South Slave **region** of the **N.W.T.** and is appointed upon the recommendation of the Dene Nation. One member represents the **Métis** communities of the South Slave region and is appointed upon the recommendation the **Métis Association** of the **N.W.T.** The Minister of Parks and Renewable **Resources, Saskatchewan** appoints **two** members from the communities of northern Saskatchewan, and the Minister of Natural **Resources, Manitoba** appoints two members from the communities of northern Manitoba.

The **BKCMB** members are appointed for a **term** of three years. Any of the ministers may terminate their members' appointments at any time, and may appoint new members.

A chairperson and a vice-chairperson are elected by the members of the **BKCMB** by secret **ballot**. Decisions of the **BKCMB** are made by consensus whenever possible and always require a majority of the members present voting in favour to be passed. The **BKCMB** is required to hold at least two formal meetings every year, and the chairperson may call meetings whenever necessary.

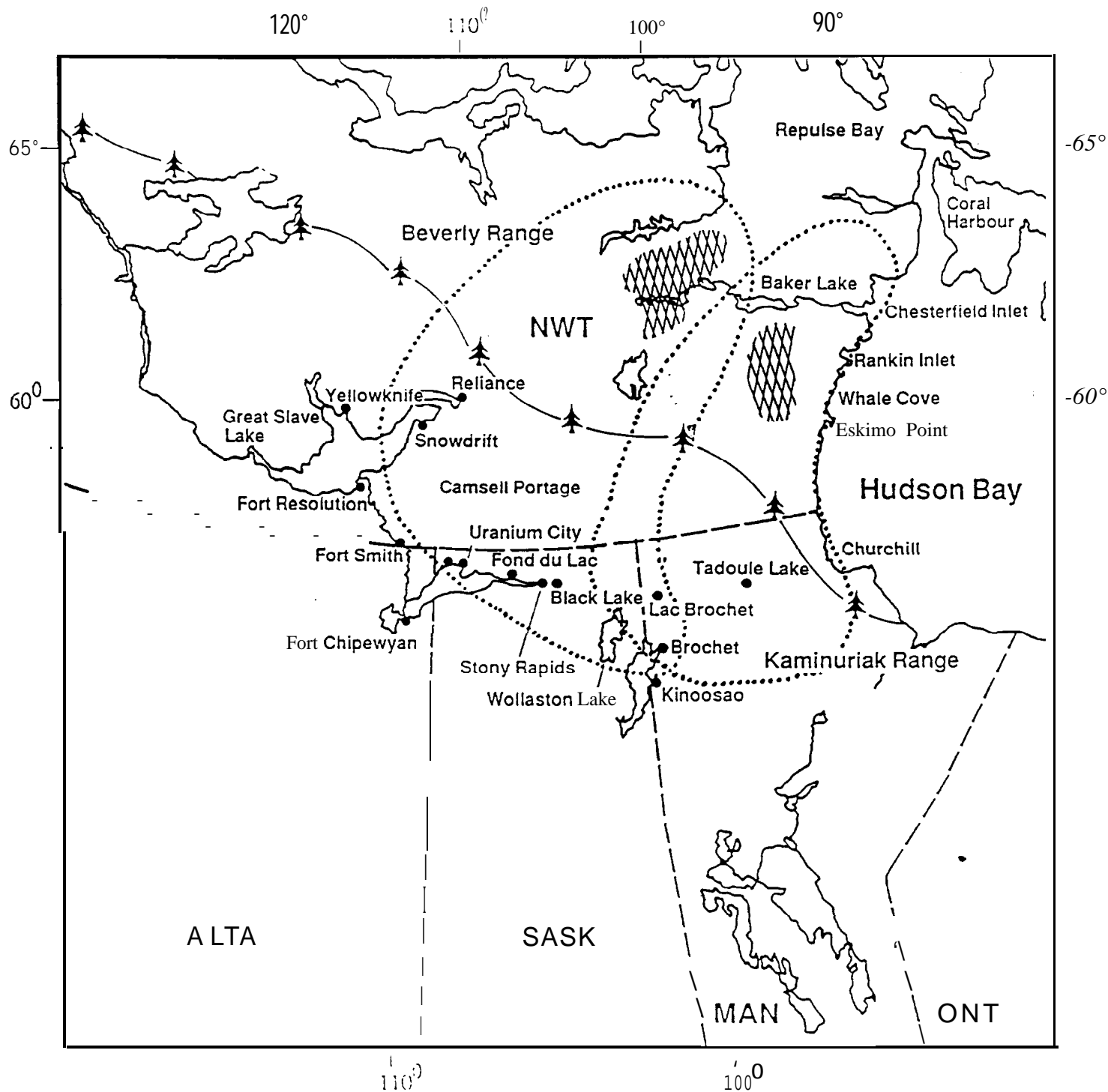
Board Finances

Under the **agreement**, the administrative expenditures of the board are limited to \$75000 annually. The annual administrative budget of the board is shared by the governments. Two-fifths of the budget is paid by the Government of **Canada**, and the remainder is split evenly between the governments of Saskatchewan, Manitoba, and the **N.W.T.** The funds allow for the establishment of a Secretariat to arrange meetings, record and distribute minutes, and provide informational support. The secretariat now comprises a part-time secretary-treasurer. The annual budget also allows for production and **distribution** of a newsletter and annual **report**, and a modest independent review-and-research capability.

Each government is responsible for funding the travel and honoraria expenses of its respective members independently of the funding agreement. In addition, governments pick up the costs of *Caribou News* and other board needs. The total annual cost of these activities is approximately \$250000. In addition, the operational expenses for programs recommended by the board are paid for by the governments. Thus, the total costs of the **BKCMB** wildlife management regime are around \$1.3million.⁶

The agreement has a sunset clause that terminates it on 3 June 1992. However, the agreement may also be terminated upon six months notice by any of the signatory governments. As well, the agreement may be amended through a simple exchange of letters and unanimous approval by the signatory governments.

Beverly - Kaminuriak Ranges and Caribou-Using communities



Legend

- Herd Range Boundary:
- Tree Line:
- Calving Ground:

III A Chronology of Board Activities

Background

There has been some form of co-ordination of research and management of the Beverly and **Kaminuriak** herds since 1959. These administrative and technical committees coordinated research programs and generally advised governments on concerns relating to the herds. These committees were composed only of government biologists until a number of significant events in the late 1970s and early 1980s prompted the creation of the BKCMB.

In the late 1970s, the population of the Beverly herd was estimated at 94000 compared with a 1974 population of 177000. The population of the **Kaminuriak** herd had apparently declined to 38000 compared with an estimated population of 150000 in the 1940s.⁷

These steep declines in caribou population were **widely** reported in the media as the "caribou crisis". In response, an **interjurisdictional** caribou management group comprised of only government representatives from the federal, N.W.T., Saskatchewan, and Manitoba governments was created. In 1978, the Department of Indian Affairs and Northern Development (**DIAND**) introduced the Caribou Protection Measures, which placed additional **restrictions** on operations of land-use permit holders (e.g., mineral exploration companies) in or near the **calving** grounds of the Beverly and **Kaminuriak** herds during the calving seasons

In December 1980, federal, provincial and territorial ministers met in **Winnipeg** to discuss their common concern over the status of the caribou herds. At this meeting, they agreed that greater **interjurisdictional** co-operation and involvement of the native people were necessary to ensure the health of the **resource**.⁹

During the spring and summer of 1981, a **DIAND** representative met with native groups to discuss their potential participation on the caribou management board. The precise composition of the Caribou Management Board was not discussed at these meetings. However, at a meeting in **Prince Albert, Saskatchewan, in August 1981, called** by the **DIAND** representative, the native groups decided to meet on their own and called for a native-only **interjurisdictional** caribou management board. Arrangements were made to meet with government representatives the following October in **Yellowknife**.¹⁰

At this meeting, a critical breakthrough was achieved where both the native groups and the government representatives were able to work out an acceptable compromise. First, the government representatives agreed to accept a minority position on the board. Second, after a long debate the native groups **agreed** to modify their proposal for an all-native board by stating that they would not sit on the government board but would invite the government representatives to sit on the natives' board. This proposal was immediately accepted by the existing all-government Caribou Management Group. ¹¹.

Following the phasing-out of the government-only Caribou Management Group, an interim Caribou Management Board with native and government representatives met in **Winnipeg** in December 1981 to begin drafting the Beverly-Kaminuriak Caribou Management Agreement. Following two additional meetings in March and May of 1982, the Beverly and **Kaminuriak** Caribou Management Agreement was signed on 3 June 1982,

by the governments with native representatives present, acting as a signatory in the case of the Northwest Territories and additionally as witnesses.¹²

Conflict on the Board

The formal agreement provided assured funding and a caribou management board with a mandate to advise ministers directly. The first meeting of the BKCMB was held in August 1982 at Saskatoon. Indian, Métis and Inuit groups were all represented from that meeting on. Between 1982 and 1985, the BKCMB met 10 times. Five of these meetings were held in native communities on the caribou range.

During this period, there was conflict between the user representatives and the government biologists. Native user representatives came to board meetings with demands to halt caribou surveys that involved radio collars and tagging. Some government biologists initially were very disturbed by the idea that native users would be reviewing and sometimes directing their research. Eventually, the users overcame their hostility toward scientific research, due to their improved understanding of its purpose and due to their greater control over its use and intent. As well, the biologists realized that the experiential knowledge of the users about caribou was very important and useful to their research efforts.¹³

Early Activities

In 1984-85, the BKCMB forwarded a number of resolutions to government. Some of these resolutions were not implemented by the ministers. The BKCMB urged DIAND and the provincial governments to devote greater funding to fire-fighting on the winter caribou range. The board also recommended that DIAND should transfer responsibility for fire-fighting to the GNWT to ensure greater responsiveness to community needs. Neither of these recommendations was implemented by the ministers. In the area of wolf predation, the BKCMB was unsuccessful in convincing government to take action to control wolf populations. Further more, the BKCMB was unsuccessful in convincing the Minister of Indian Affairs and Northern Development to initiate research to determine the extent of traditional native land use and caribou hunting in the trans-boundary area between Manitoba and the Northwest Territories.¹⁴

On the positive side, the BKCMB began development of a draft caribou management plan that included provisions for:

- an information, education, and communications program;
- caribou population surveys;
- harvest studies carried out in conjunction with user groups;
- measurement of caribou demand,
- documentation of the effects of wildfire on caribou habitat;
- habitat mapping and assessment;
- caribou protection measures during pre-calving and post-calving periods;
- integrating habitat management with land use planning;
- disturbance research;
- re-assessment of caribou-human interactions;

- reduction of crippling losses; ¹⁵ and
- wolf research

The BKCMB was also successful in implementing an information program that included *Caribou News*, a newsletter published six times a year and distributed to all the households on the caribou range as well as to the Canadian public at large through subscription. Significant effort was also devoted to the creation of the Barren Ground Caribou Schools Program that is made available to schools and resource centres in the user communities. The purpose of the program is to teach children from Grade 1 upward about barren-ground caribou and caribou management- An Adult Education Program for young adults who have not received either traditional or formal education about caribou was also initiated.

In the spring of 1984, the BKCMB also received its first application for a commercial quota involving the Kaminuriak herd from Nunavut Furs and Country Produce in Eskimo Point, N.W.T. The applicant wanted a harvest quota from the Kaminuriak herd to sell caribou meat locally. The board responded with a resolution stating that it strictly opposed the application at that time. ¹⁶

The Caribou Management Plan

In April 1986 the draft Caribou Management Plan was released for public review. It was published in three versions:

- a complete working document for members;
- an executive summary for ministers; and
- a special issue of *Caribou News*, with the plan translated into Inuktitut and Chipewyan for the users in the communities.

The Caribou Management Plan is divided into sections concerning management principles, management goals and objectives, and action plans. The management principles outline a framework for the plan that recognizes, among other things, the importance of co-operation and communication between traditional users and governments, the need to limit caribou harvests to prevent decline, the nutritional as well as social and cultural importance of caribou to native communities, the need for the best possible scientific information, the need for interjurisdictional integration in matters concerning caribou, and the significance of habitat management and land-use planning.

The management goals in the plan are twofold:

- to safeguard the caribou of the Beverly and Kaminuriak herds so that the traditional users can maintain a lifestyle that includes the use of caribou; and
- to safeguard the caribou of the Beverly and Kaminuriak herds in the interests of all Canadians as well as people of other nations.

The objectives set out an optimum size for each herd of 300000 animals. The objectives also set out a crisis size of a population under 150000 or less for either herd, during which emergency actions will be recommended by the board to reverse the decline. Other objectives include ensuring that caribou are accessible and available to

traditional users, increasing knowledge of caribou ecology, encouraging wise use of caribou, involving local individuals and households in management programs, and strengthening public support for caribou conservation.

The action plans are detailed strategies, each structured around a problem statement, objective, method, schedule, and budget. The organization(s) that are to have a lead role in implementation are stipulated. There are 17 action plans classified under the following major headings:

1. Information, Education, and Communications
2. The Supply of Caribou
3. The Use of Caribou
4. caribou Protection and Habitat Management
5. The Mortality of Caribou

In April 1986, the **BKCMB** also recommended the approval of a quota on **intersettlement** trade submitted by the **Keewatin** Wildlife Federation which wanted to distribute caribou among different communities in the South **Keewatin**.

User Assembly at Eskimo Point

In August 1986, the **BKCMB** held a User Assembly at Eskimo Point, N.W.T. to which all residents of the user communities were invited. The main purpose of the assembly was to review the draft caribou management plan that had been released the previous April. The User Assembly endorsed the draft management plan "with the knowledge that it is a dynamic document that will be reviewed over time." A sub-committee of the **BKCMB** was struck to review the **draft** management plan based on public input. Dr. Fred **Brunnel** of the University of British Columbia was appointed to this committee to assist in the review. During the formal meeting of the **BKCMB** at the User Assembly, a request for a commercial quota from the **Fort Smith Hunters and Trappers Association (HTA)** was discussed. The board recommended denial of this request by a narrow margin. Although some communities were completely opposed to commercialization due to cultural beliefs, the reason given for the denial of this request was the fear, on the part of some board members, that it would "set a precedent opening the way for a flood of similar requests from other areas."¹⁷ As well, concerns about proposed low-level flight testing by **NORAD** in the East Great Slave Lake region and the impacts this might have on caribou were expressed during this meeting.

Priorities in Allocation and Meeting Demands

The April 1987 meeting of the **BKCMB** in Saskatoon was particularly significant in that caribou use priorities and commercial quotas were agreed upon for the first time. In addition, resident quotas and a discussion with representatives of the mining industry were on the agenda.

Based on the report of the management plan review sub-committee, the board set the use priorities for caribou meat and meat by-products in descending order of priority as follows:

1. Traditional users' domestic use
2. Residential users' domestic use
3. Traditional users' intersettlement made
4. Traditional/resident users' non-resident hunting (guiding, etc.)
5. Local use for **commercial** purposes
6. **Export** use for commercial purposes (with the provision that this category is of extremely low priority and, as a rule, will not be approved).

This motion was approved with two members opposing and two abstaining. Immediately afterward, the two members from the south **Keewatin** moved and seconded a motion to delete the last line ending with "as a rule will not be approved". This motion was not approved with **three** abstentions.¹⁸

At the same meeting, Dave **Nutter** of the Northwest Territories Chamber of Mines made a presentation about the mining industry's views on the Caribou protection Measures. The measures require all land-use permit holders on the **caribou** calving grounds to shutdown operations during the calving season between 15 May and 15 July. If no caribou are in the vicinity, **operators** may apply to the **DIAND** district manager to be released from the measures and to resume work.¹⁹ The mining industry advocated removing the caribou protection areas **from** the measures and relying on self-enforcement by the operators based on "clauses that called for action when circumstances **warranted**, regardless of location". The board was very critical of the proposition that the operators be responsible for shut-down when caribou are in the vicinity. Board members emphasized that the caribou calving grounds can now be predicted with some accuracy and that the system has worked well in the past.

During the discussion, the Executive Secretary read a letter from Noble Peak Resources that requested the board's approval of a one-time-only waiving of the Caribou Protection Measures "to allow the continuation of geological mapping during the calving period at a site west of the **Kaminuriak** calving ground".²⁰ The board established a policy of not considering applications from individual companies that want to be exempted from the Caribou Protection Measures. The board ruled that its role is to advise governments in developing policy and regulations, not to administer the regulations **themselves**.²¹

The board was faced with three requests for caribou harvest quotas. The N.W.T. Wildlife Federation wanted to increase the resident bag limit. The Fort Smith Hunters and Trappers Association and the **Keewatin** Wildlife Federation each wanted commercial quotas.²²

The N.W.T. Wildlife Federation had requested that the Minister of Renewable Resources, N.W.T. increase the **bag** limit for two-year residents from three tags to five. The resident bag limit had been **reduced** during the time of the caribou crisis. The Northwest Territories Wildlife Federation felt that a greater resident harvest could now be sustained due to the recovery of the herds. The minister had responded by saying that he was waiting for the caribou management plan to be in place before taking the federation's request to the Northwest Territories Legislative Assembly. The board recognized the authority they were being accorded by the minister and approved the N.W.T. Wildlife Federation request. Interestingly, the board's handling of this issue was preceded by an

angry letter from the Wildlife Federation to the BKCMB in which it was claimed that "the GNWT has stonewalled the legitimate interests of resident hunters for its own cynical motives and has used the BKCMB as a shield for its inaction".²³ However, prior to submitting its request to the BKCMB, the Wildlife Federation stated that the letter no longer represented their position.

The Fort Smith Hunters and Trappers Association (HTA) request for a commercial quota for local use was the same as the one it had submitted in August 1986. The association representative stressed that \$250000 had been spent on a building to process and store the meat. He indicated he would either have to keep coming back to the board for an approval or would attempt to obtain a quota from the GNWT which could overrule the board. The board discussed this matter in closed session and recommended approval of a 200-caribou quota. However, the board concluded that approval should be subject to the condition that the proponents submit a written proposal providing details of the intended use of the caribou, that the quota shall expire on 31 March 1989, that there be effective control and scrutiny by the GNWT, and that an interim and final report on the project be submitted to the GNWT and passed along to the board.

The Keewatin Wildlife Federation submitted a request for a commercial quota for local use of 350 caribou to replace the intersettlement trade quota that had been approved by the board in the past year. This quota was recommended for approval on essentially the same conditions as the commercial quota for the Fort Smith HTA.

Protecting the Calving Grounds

At its August 1987 meeting, the BKCMB approved the final version of the caribou management plan, prepared a series of community meetings for plan promotion, discussed its response to the Northern Mineral Policy, and received a report from the Caribou Protection Measures monitor. Copies of the plan were to be published and distributed during the fall of 1987. In approving the plan, the board noted that it would likely require revision in the future as circumstances change. The board also anticipated extensive public review of the plan in 1990 when the agreement itself will be reviewed.

The BKCMB planned a tour of northern Manitoba communities to discuss the approved management plan with the users. One representative from each jurisdiction and user group was to be included on this tour. The board intended to make further tours to northern Saskatchewan and the Northwest Territories to promote the plan and to continue to communicate with the caribou users.

The board member from the Department of Renewable Resources briefed the board about the Northern Mineral Policy. Discussions about a northern mineral policy were initiated in 1981/82 by DIAND in response to pressure from the mining industry to develop a policy supportive of mineral development. The policy, released in 1986, calls for, among other things, a review of three types of conservation areas within the Northwest Territories: Migratory Bird Sanctuaries; International Biological Program Sites; and the Thelon Game Sanctuary.²⁴

The purpose of these reviews is to determine whether these areas fulfil their roles as conservation areas and whether they can be opened up for industrial development. While the migratory bird sanctuaries and the International Biological Program sites must be reviewed within two years, the review of the Thelon Game Sanctuary is open-ended. The

The Iona Game Sanctuary is critical for the Beverly caribou herd, since the area is used as a calving ground.

The GNWT member maintained that the Iona Game Sanctuary should be reviewed within the framework of regional land-use planning process, not through the Northern Mineral Policy which has a strong **pro-development** bias.

The GNWT member further emphasized that it is important for the board to take a stand on the **Thelon** Game Sanctuary, as well as on future mineral development that will take place on other caribou calving grounds, where the Caribou Protection Measures **are** applied. So far, only mineral exploration has taken place on the caribou calving grounds. Once a company applies for a mineral development **licence**, it will be necessary for the board to become actively involved to ensure that the caribou are not disturbed. It will be much more difficult for **DIAND** to enforce the Caribou Protection Measures when mines are in production.

As a result of this presentation, the board **decided** to send a letter to the Minister of Indian and Northern **Affairs** saying that it is very interested in land allocation questions. As well, the board invited a **DIAND** representative to its November 1987 meeting to discuss the Northern Mineral Policy. That policy and its implications for the protection of calving grounds inside and outside of the **Thelon** Game **Sanctuary** will remain high on the board's list of priorities. **Indeed**, the protection of the calving grounds has been a priority for the board since 1983 when biologist Lloyd Gamble, speaking for the **Keewatin Wildlife** Federation, called for governments to establish a park or sanctuary to **preserve** the calving grounds in Perpetuity.^{fi}

The board received a detailed report from the caribou monitor, a biologist who is in charge of observing and recording the movements of the caribou during the calving and post-calving periods. The monitor makes recommendations to the Indian and Northern Affairs District Manager on the application of the Caribou Protection Measures to land-use permit holders. The Caribou Protection Measures stipulate that land-use permit holders in the protection areas must stop work between 15 May and 15 July. If no caribou appear to be in the vicinity, the operators may apply to **DIAND** to startup work **again**.²⁶

The caribou monitor reported that the Beverly herd had again used the northeast corner of the **Thelon** Game Sanctuary for calving. The **Kaminuriak** herd calved well to the east of **Kaminuriak** Lake, their usual calving grounds. Possibly snowstorms had stopped them from reaching the lake. In general, the caribou monitor's report indicated that the movements of the herds during calving were consistent with the previous years, as the caribou used the protection areas outlined in the Caribou Protection Measures.

IV ANALYSIS

The activities of **the BKCMB** raise issues about how things are done (process issues), and what is done (substantive issues). The main process issues are: communication and co-operation between biologists and users, community **representation**, cultural differences between user groups, and links to other institutions. In the substantive area, the issues of conservation of **the** caribou herds, commercialization of the caribou harvests, the Caribou Protection Measures and industrial **development**, fire-fighting and the protection of **habitat**, caribou use by non-natives, and the impact of land claims settlements are most **significant**.

Process Issues

Communication and Co-operation between Biologists and Users

A central feature of the **BKCMB** is that it involves the active participation of the aboriginal users in planning and managing the caribou resource. The board is composed of eight aboriginal members from the user communities, and five government representatives. The history of the board indicates that this arrangement resulted from conflicts between the native organizations and the governments during the time of the "caribou crisis" in the late 1970s. The aboriginal users felt that they had been consistently excluded **from** the decision-making process affecting a resource with which they were intimately connected and which was extremely valuable to them. Traditionally, the aboriginal caribou users had relied on their own indigenous forms of decision-making regarding the use of the caribou herds. When the survival of the herds was threatened under the governments' management system, the aboriginal users responded by asserting their own rights over the resource and demanding the creation of a native-only caribou management board.

This conflict must be understood in the context of the schism between **scientific** and aboriginal concepts of wildlife management. These two concepts of wildlife management have been termed the *state system* and the *indigenous tradition*. Generally speaking, they differ in the following way:

The state system emphasizes the implementation of regulations governing seasons, quotas, bag limits, gear restrictions, and their enforcement by means of **licence** forfeiture, fines, seizure, and even personal confinement. The indigenous tradition emphasizes consensus on the basis of pooled knowledge, flexibility of response to immediate conditions, management practices such as land rotation or sanctuary, and enforcement by means of gossip, ridicule, and avoidance.²⁷

These two systems also differ in terms of their knowledge base about the resource. The state system gathers information about wildlife through **scientific** survey methods that seek to determine current population size, population composition (age and sex), **age-specific** natality/mortality, cause of mortality, and in/out migration. By integrating all of these factors into mathematical models, biologists calculate the harvest levels that can be sustained without damage to the stock. The problem is that scientists, "have only fragmentary biological information for nearly all of the arctic species that they propose to scientifically manage", since all of this information is based on periodic wildlife surveys that have limited statistical accuracy.²⁸

In contrast, indigenous **knowledge** is based on continuous direct **observation** of wildlife in the context of a detailed understanding of the local environment. Much of this knowledge is rooted in oral traditions that describe the historical **behaviour** of animals and hunters. In making decisions about harvesting, hunters use their knowledge in a holistic way where:

The processing of this information leads into the domain of spirituality and metaphor where accumulated knowledge, intuition, and the subtlest of connections with the natural world can generate choices on a basis that is quicker and surer than narrow rationality. In this way, the decisions of hunters are close to the certainties of **artists**. By denying reduction to a limited set of variables, the fullness of both culture and consciousness come to bear on each day's **activities**.²⁹

However, both the scientific and indigenous knowledge systems are based on the principle of "systematic accumulation of detailed observations and abstraction of norms from disparate data sets." The scientific system generally does this by means of remote observations of the animals (e.g., through aerial **surveys**) that yield a broad and quantitative type of knowledge. The indigenous system generally does this through intimate observations of individual animals that yield a specific and quantitative type of **knowledge**.³⁰

These differences in the **knowledge** base are critical with respect to caribou **management**. Since caribou are migratory and the system is "open", the indigenous harvesters "are not necessarily in a position to know either the entire natural history of the animals or the extent of harvesting by other **groups**".³¹ This suggests that the broad knowledge of the scientific system is a necessary complement to the specific **knowledge** of the indigenous system. It is also important for different indigenous user groups to communicate about their harvest activities and to co-operate in managing the resource. In the absence of a complete knowledge of the caribou throughout their migratory range, **harvesting behaviour** and management decisions may detrimentally affect the resource. As well, the specific knowledge of the indigenous system can provide details about the animals that the **scientific** system cannot discern. To gain the best possible knowledge, the two systems should be integrated, and indigenous knowledge from throughout the range of the species should be **compiled**.³²

In response to demands for participation by aboriginal peoples, co-management institutions have been adopted. Such arrangements generally involve devolving and decentralizing the management system so as to incorporate more direct input at the local level, establishing user advisory boards, and encouraging native people to become qualified to work as technicians and managers in the state system.³³ However, these strategies do not necessarily incorporate elements of the indigenous system into the state system. Indeed, they may result in a situation "in which native harvesters merely provide **data**, and the state system continues to do the managing and allocation with no reference to the paradigm of indigenous **systems**".³⁴ It has been suggested that the indigenous and state systems are difficult to integrate because they are based on completely different world-views. Thus, if **government** resource managers want to know how to design ecological practices which are compatible with indigenous social systems, "they must embrace the epistemologies of indigenous people, including their ways of organizing their knowledge of their environment".³⁵

This means that complete integration of the indigenous and state systems will require a profound change in perception on the part of both government biologists and

aboriginal users. Both groups will have to become capable of functioning within each other's world-view. Furthermore, integration will require that both the policy and implementation of wildlife management should **change**. However, the concept of an integrated wildlife management system is still unclear. The principles of the two systems have been **identified**, but no one has clearly stated what an integrated indigenous-state system would actually involve.

Although the BKCMB does incorporate aboriginal users into decision-making, it cannot be considered a model of complete integration, since government biologists do not appear to have accepted the indigenous system of wildlife **management**³⁶ Furthermore, the actions of the board remain, for the most **part**, at a policy level. Thus, the wildlife management practices that take place within each jurisdiction remain essentially unchanged. It is true, however, that the board does make decisions with immediate implications such as those concerning the commercialization of caribou. In this **area**, indigenous knowledge systems are probably brought to bear. On the whole, it is possible to say that the **BKCMB** does incorporate some indigenous knowledge into the management of caribou, but it should not be considered a model of integration, since the balance of authority rests with the state system.

In this sense, the problem is fundamentally political: it deals with **the** issue of control over the resource. While the **BKCMB** may not **fully** integrate indigenous values into caribou **management**, it does represent a political accommodation of aboriginal interests. It is important to **remember** that the BKCMB emerged from a serious conflict between the state system and the indigenous system where the native caribou users threatened to cease co-operating with the governments by establishing their own caribou management board. The users eventually agreed to participate on the **BKCMB** because they saw that it was their best and most realistic opportunity to influence the management of the resource. It is doubtful whether any of the aboriginal users were under the illusion that the **BKCMB** could somehow institutionalize the indigenous system of wildlife management since the **board** was only given a mandate to advise the ministers. The implementation of wildlife management by the government agencies was expected to remain essentially unchanged.

One of the main attractions for natives to **participate** on the BKCMB was the fact that the aboriginal users constitute a solid majority on the board. The chairperson of the board is expected, by tacit understanding, to be one of the aboriginal representatives. However, in the course of the history of the board, the aboriginal user **representatives** have never used their numerical advantage to out-vote the government representatives. **Indeed**, the vote has never split along native versus non-native lines.

An interesting aspect of the participation of the aboriginal users on the board is the fact that they provide the main source of political **energy** to the board. While government **representatives** see problems in bureaucratic terms, the user representatives see problems in terms of the direct impacts on their *communities*. Thus, they are interested in having the problems solved as quickly as possible instead of pondering the obstacles of the government bureaucracies.

For example, at the August 1987 meeting of the **BKCMB** in Winnipeg, the government representative from the GNWT discussed the proposed devolution of fire-fighting from the federal government to the GNWT and how the board could influence the GNWT in **establishing** a policy to fight fires that threaten caribou habitat. The user representative for the **Chipewyan** from northern Saskatchewan **responded** by alerting the board to a large **fire** burning on the N.W.T.-Saskatchewan border and suggesting that the

board should do something about it. The GNWT representative answered that there is little that the board can do since it must wait some time before the GNWT can develop fire management policies that include the protection of caribou habitat.³⁷

Although the users provide most of the impetus for action on the board, they are at a disadvantage with respect to the government representatives because they do not understand or appreciate the bureaucratic process. The discussion on the board is dominated by the government representatives who are familiar with formal committee procedures and who have the advantage of direct access to government information and decision makers at the ministerial level. The distribution of membership on the board of eight user representatives in relation to five government representatives somewhat redresses this imbalance when it comes to decision making, since the government representatives must always take into account the fact that they can be out-voted at any time.³⁸ In the early stages of the board's evolution, these dynamics were recognized as a problem, and steps were taken to make the users feel more comfortable in a meeting situation and to give them more time to discuss issues among themselves.³⁹ However, it seems that the difficulties of cross-cultural communication persist to this day, since the organizational structure of the board is a product of Euro-Canadian bureaucratic culture that stands in contrast to decision-making processes in traditional aboriginal culture.⁴⁰

Nevertheless, communication between the members has improved substantially since the early days of the board. This can be attributed to the fact that there is high continuity among the board members. Jim Schaefer, who represents the Métis Association of the Northwest Territories has served as chair from the outset. Furthermore, the board's first executive secretary, Barry Roberts, served for six years. This continuity has allowed members to develop strong personal relationships that can smooth out cultural differences and create a team atmosphere of co-operative decision making.

Community Representation

One of the reasons for involving aboriginal caribou users on the board is to give communities on the caribou range greater influence in management of the caribou herds. Not every community on the caribou range is represented on the board, but there is a sufficient number of aboriginal representatives to provide adequate coverage of the communities on the caribou range based on political jurisdictions and ethnic composition.

The aboriginal representatives are generally high-status members of the communities or of native organizations. This probably enhances the respect that the caribou users in the communities have for the board's decisions. One would expect that the aboriginal user representatives would have to keep their communities effectively informed to maintain their leadership positions. Although the aboriginal representatives do present briefs to the aboriginal organizations that they represent (e.g., Dene Nation, Métis Association, Keewatin Wildlife Federation), they do not communicate effectively with the communities at large. This maybe due to the fact that board members have other responsibilities that demand their time or that this kind of explicit information feedback is not expected in aboriginal culture.⁴¹

Thus, as a whole, the board has taken on the responsibility for effective communication with caribou users at large. The executive secretary prepares comprehensive meeting minutes to inform people in the communities and other organizations about the activities of the board. *Caribou News* also provides a useful vehicle for communicating with caribou users and the communities. The most important

means of soliciting effective community input are the public meetings organized by the board in the communities to discuss issues such as the caribou management plan.

It is also significant that the board rotates its meetings throughout communities on the caribou range in addition to having some meetings in capital cities. This ensures that a variety of interested parties have the opportunity to attend meetings, since all of the BKCMB meetings are open to the public.⁴² However, important communication problems exist. For example, at the August 1987 meeting in Winnipeg, three caribou users from northern Manitoba chose to attend in order to learn about the activities of the board. It would appear that regional representatives are not always able to maintain effective communication with the communities they represent. One delegate was sent specifically by his band chief because the community felt insufficiently informed about the activities of the board. Those communities on the caribou range do not have their own representative on the BKCMB.

Cultural Differences among User Groups

Among the user groups, the main cultural difference centres on the commercialization of the caribou harvest. The Chipewyan communities of Snowdrift, N.W.T. and Black Lake, Saskatchewan, have very traditional views about the caribou harvest. These communities have not had very good access to caribou in the past decade, the herds have not been ranging far enough south during the winter. Thus, they do not perceive the herds to be sufficiently abundant to permit commercialization. Also, the ethic of sharing caribou meat is still very strong in these communities.

In contrast, the Inuit communities of the south Keewatin have had very good access to caribou. The people in these communities perceive the herds as being very abundant. The culture of these communities is also much less traditional than that of the Chipewyan communities as they have been affected by wage-labour opportunities from nearby mines and mineral exploration activities. For some in these communities, the hunting and sharing of caribou meat is fast disappearing. It is important for people who do not have a chance to go hunting (e.g., the elderly, the infirm, and people with full-time jobs) to have access to caribou meat to maintain their cultural identity and satisfy nutritional needs. Commercial hunting opportunities are seen as a way to achieve this.⁴³ In addition, the Métis community of Fort Smith, through its Hunters and Trappers Association, has been supportive of commercialization.

The differences among the user groups have been slowly resolved through extensive dialogue and discussion on the board. The Chipewyan representatives have understood the needs of the Inuit to sell caribou meat within their communities while the Inuit have realized that they must limit the extent of their commercialization requests to accommodate the Chipewyan concerns.

Links to Other Institutions and Processes

The BKCMB is remarkably adaptive to the turbulent political environment of the Northwest Territories since it is capable of responding to change by making effective links with other institutions and processes to find solutions to the problems of caribou management. The BKCMB stands between different interests surrounding the caribou resource. The board mediates between aboriginal interests, as well as the interests of different government ministries, by providing a forum where consensus can be reached. This, in itself, is a notable accomplishment.

In addition, the board has extended its purview to deal with external impacts on the caribou resource in a proactive manner. The board has kept itself well informed of the DIAND Mineral Policy through its GNWT member to ensure that the Thelon Game Sanctuary is not jeopardized. The board has consistently pressed, albeit unsuccessfully, for fire-fighting policies to include protection of caribou habitat. Jim Schaefer, the board chairman, is a member of the Fire Management Committee of the GNWT, and has communicated the concerns of the board in that forum. In these instances, the board has taken a position on these issues at an early stage to increase its chances of effectively influencing their outcome.

The fact that members of the board are directly involved in institutions related to the external activities that may affect the caribou resource enables the board to receive timely information and to have a voice "on the inside" that advocates the board's interests.

The board has developed informal contacts in other areas. The BKCMB has communicated with the Innu of Labrador who are faced with NATO low-level military flight testing to gain information about the impacts on caribou, the Beverly herd maybe threatened with proposed low-level military flight testing by NORAD. The board also keeps in touch with the James Bay Hunting, Fishing, and Trapping Committee to share general information about wildlife management. Furthermore, Kevin Lloyd, the board member representing the GNWT, is also a member of the Porcupine Caribou Management Board. The Porcupine Caribou Management Board is similar to the BKCMB. It covers an international territory that includes the Alaskan North Slope, northern Yukon, and the Mackenzie Delta. The Porcupine Caribou Management Board also has native representation. Another member, Floyd Adlem of DIAND, serves on the Nunavut Wildlife Management Advisory Board.

In the near future, the BKCMB will probably participate in regulatory processes for mineral development in the southern Keewatin to attempt to ensure that the Kaminuriak herd is not adversely affected. If companies apply to develop claims after exploration, they will have to go through Regional Environmental Review Committee/EARI?, Land Use Advisory Committee, and Water Board approval processes. The board will take an active role to include satisfactory operating conditions and effective shut-down procedures (when caribou are in the vicinity) in allocating land-use permits. Over the longer-term, board members have indicated that they wish to participate in the Northern Land Use Planning program when plans are being prepared for the South Slave and South Keewatin regions.

The capability of the BKCMB to establish links with other institutions and processes on both formal and informal levels strengthens its position as an advocate for the caribou resource. In addition, the board appears to be respected by other institutional actors because it represents a strong consensus position of governments and native peoples. In this way, its ability to speak authoritatively and to take effective action concerning the caribou resource is increased.

Substantive Issues

The research has identified six major areas of concern facing the BKCMB: conservation of the caribou herds, commercialization of the caribou resource, caribou protection measures and mineral development, devolution of fire-fighting and protection of habitat, caribou use by non-natives, and the impact of land-claims settlements. While all of these issues centre on the board's mandate, most also reflect current and anticipated political, economic, and cultural developments.

Conservation of the Caribou Herds

The BKCMB was created as a response to the “caribou crisis” of the late 1970s when the population of the herds appeared to have declined dramatically. Since that time, a higher population size has been documented. Using the latest aerial photographic surveys, the board estimated the population of the Beverly herd to be between 250 000 and 420 000 in 1984, and the population of the Kaminuriak herd to be between 260 000 and 380 000 in 1985. The total annual harvest of caribou throughout the range is considered to be well within the limits of sustainable yield.⁴⁴ The economic significance of this harvest is substantial. The Department of Renewable Resources estimates the value of the annual harvest to be approximately \$13 million.⁴⁵

The board is well aware that the populations of the caribou herd can fluctuate markedly. Thus, it has set the optimum size for each herd at 300 000 animals and the crisis level at 150 000 animals. If the population of either herd should drop below this crisis level, emergency protection measures will be implemented. These will probably involve recommending reduced caribou quotas to the ministers.⁴⁶

The eruption of another caribou crisis would be one test of the board's ability to manage the caribou resource. Decisions concerning the reduction of quotas would certainly become very politicized, and the kind of confrontation that was present on the board during its early years might appear again.

In this respect, it is helpful that the board has agreed on a caribou management plan to set priorities for meeting demands for caribou use. If the health of the herds should be threatened, the priorities for meeting demand provide a step-wise rationale for the curtailment of caribou harvests. Traditional and domestic users would form the last category to have their caribou use reduced. This arrangement assures the primacy of the traditional users in their domestic (subsistence) use of the caribou resource.

During the early 1980s, when the caribou herds were still perceived to be in a precarious state, the BKCMB deferred discussion of hunting quotas because of conflicts between biologists and users in population estimates. The biologists claimed that the population of the herds had seriously declined whereas the native users claimed that parts of the herds had simply “gone elsewhere”. Hence, the board directed its discussions to harvest studies, user needs, and improved caribou population surveys. In the course of time, improved census-taking techniques revealed more caribou than the earlier surveys had shown, “making allocation questions unnecessary, at least for the time being”. It should be noted that the question of whether the herds had indeed declined or whether the biologists had missed a significant proportion of the herds remains unanswered to this day.⁴⁷

It is still unclear whether the BKCMB is capable of managing human use during times of caribou population decline. It appears that the caribou herds go through cycles where the population numbers plunge and then rise again. Since the scientific data concerning caribou populations are sketchy and lack a significant historical (time-series) dimension, perhaps the indigenous knowledge of the users can alert the board to incipient declines in caribou population through direct observation of caribou behaviour. The unresolved question is whether the board can achieve consensus on the reduction of caribou quotas during these critical periods. The fact that the board has established the *Priorities for Meeting Demand* should reduce the difficulty of making decisions about limiting quotas. If the population of the caribou herds declines in the future, the ability of

the board to make these decisions and have them implemented by governments and users will be put to the test.

Commercialization of the Caribou Resource

The issue of commercialization of the caribou resource has provoked heated debate among board members. This is partly due to the fact that the **Chipewyan, Métis, and Inuit** have different cultural perspectives on the commercialization issue, as discussed previously. In addition, other board members wish to proceed cautiously in this area, given the fact that the health of the the herds was, until quite recently, perceived to be in a precarious state.

As of August 1987, the board had only recommended two commercial quotas to the ministers. Both of these quotas were for local use. The Fort Smith HTA has been allocated a quota of 350 caribou, and the **Keewatin Wildlife** Federation has been allocated a quota of 200 caribou. Both of these quotas represent a “cautious entry into a new area” and were recommended only after extensive pressure was put on the board by the proponents.⁴⁸

As early as the spring of 1984, **Nunavut Furs and Country Produce** applied for a commercial quota on the **Kaminuriak** herd which the board denied. In April 1986, the board recommended approval of a **Keewatin Wildlife Federation** application for a quota for **intersettlement** trade which involved trading caribou between communities. Although this was not part of a commercial quota *per se* (the formal categories of the *Priorities for Meeting Demand* had not been established at that time), it appears to have been an incremental step by the **Inuit** toward the approval of a commercial quota. In August 1986, the board denied a request by the Fort Smith HTA for a commercial quota despite the HTAs plea that they had invested \$250000 into a building for the processing of caribou meat.

The turning point for the recommendation of caribou quotas came at the April 1987 meeting of the BKCMB. At this meeting, the board approved its priorities for meeting demand. Interestingly, they were approved with two members opposing and two members abstaining. The two **Inuit** members then immediately moved to amend the priorities by removing the provision that export use for commercial purposes “is of “extremely low priority and as a rule will not be approved’. This motion was defeated.

The **Inuit** board members were disappointed that the category “Export Use for Commercial Purposes” was given the lowest priority and accompanied by the provision that it would not be approved as a general rule. The **Inuit** see commercialization, and particularly export, as a viable economic development opportunity for their communities. The **Inuit** members are puzzled that even the government members of the board oppose the commercial export of caribou.⁴⁹

After the priorities for meeting demand were approved, the board considered two applications for quotas involving local use for commercial purposes. The board decided to recommend approval of the Fort Smith HTA request for a 200-caribou quota on the Beverly herd and to support the conversion of the **Keewatin Wildlife Federation intersettlement** trade quota to a local use for commercial purposes quota for 350 caribou from the **Kaminuriak** herd.

It seems that the board will be faced with further demands for commercial quotas on the caribou resource in the future, particularly from the communities of the south Keewatin. So far, the board has acted very cautiously in approving these quotas. The total commercial harvest of 550 caribou approved to date represents a small fraction of the regional harvest of 19000 caribou.

There appears to be little prospect for commercial ventures of the scale that are being undertaken in northern Quebec and Labrador using the George River Caribou herd. The Beverly and Kaminuriak herds are not facing the kind of population explosion seen in the George River herd. More importantly, the reluctance of the user representatives from the Chipewyan communities to accept commercial export further reduces the likelihood of large-scale ventures.

Although the BKCMB has been willing to support some incremental accommodations of the users who desire commercialization, its conservative stance on this issue should, for the time being, be an effective control against ecologically unsustainable ventures into this new area.

Caribou Protection Measures and Mineral Development

The protection of the caribou calving grounds has emerged as an important issue for the BKCMB, as the calving grounds are threatened by a number of external forces. The Northern Mineral Policy review might lead to an opening of the Thelon Game Sanctuary to mineral development. Exploration permit holders on the caribou calving grounds appear to be increasingly reluctant to bear the costs of shutting down operations in accordance with the Caribou Protection Measures. Finally, if any of the current exploration permit holders on the calving grounds successfully apply for development permits on their claims, such operations will be even harder to shut down during the caribou calving season.

The board took a pro-active stance in relation to the Northern Mineral Policy review now underway. During its August 1987 meeting, the board discussed the contents of the policy extensively and took action by stating that the Thelon Game Sanctuary must be protected. The board also requested a meeting with a DIAND representative concerning this matter. The Northern Mineral Policy review has yet to be concluded; however, it is clear that the BKCMB is determined to provide substantial and sustained input into the decision-making process to ensure that the Thelon Game Sanctuary is protected.

More broadly, the BKCMB has taken a keen interest in Caribou Protection Measures. It has informed its members of the implementation of the measures by inviting the GNWT biologist who seines as caribou monitor to make a detailed presentation to the board about the behaviour of the caribou during calving and post-calving periods. This helps the board members from throughout the caribou range understand the significance of the calving grounds and their protection. It also gives the members a greater appreciation of the behaviour of the caribou herds in areas that are distant from their own communities.

The board has had to respond to mining industry requests for self-enforcement of the Caribou Protection Measures as well as requests by two exploration companies for releases from the regulations. At the April 1987 meeting, the board strongly criticized the mining industry's request and stated that much more data supporting this request would be required if the board were to give it serious consideration. The representative of the N.W.T. Chamber of Mines responded that he views this initial presentation as the

beginning of a process of ongoing dialogue between the mining industry and the board.⁵⁰ The fact that the N.W.T. Chamber of Mines sent its representative to the board to initiate such discussions indicates the mining industry's high regard for the authority of the board. It is likely that the mining industry will attempt to establish a closer understanding with the board to ensure that its perspectives are understood by its members.

The fact that the two exploration companies attempted to lobby the board for release from the Caribou Protection Measures⁵¹ indicates two matters. As mentioned previously, it is indicative of the mining industry's high regard for the authority of the board. Second, it indicates that the role of the BKCMB is not well understood by the mining industry.

In this instance, the two exploration companies thought that the role of the board was to advise on the administration of the regulations and attempted to include it in its lobbying efforts. By making a clear statement that its responsibility is to assist governments in developing regulations and policy, and not to assist in the administration of the regulations, the board indicated that it wishes to abide closely by its mandate to provide policy advice directly to ministers. Thus, the board will distance itself from the lobbying efforts of special interests to remain within a higher-level policy arena. Taken to an extreme, this may have the disadvantage of distancing the board from "on-the-ground" resource management. As mineral exploration activity in and around the calving grounds increases, the board will probably have to strike a balance between these two extremes in its resource management roles.

The board will face an extremely difficult period when the exploration permit holders on the caribou calving grounds apply for permits to develop mines. The board is likely to participate in the regulatory processes involving these operations. The Inuit board members from the South Keewatin have stated that no serious conflicts between mining and caribou should result if strong terms and conditions are stipulated in land-use permits and water licences and if the Caribou Protection Measures are strictly enforced. Indeed, it appears that the communities of the south Keewatin are generally supportive of mineral development prospects in their region as the mines promise to provide additional jobs and income.⁵²

The assessment and regulatory decision making for mineral development on the calving grounds will test the ability of the board as well as existing environmental assessment and regulatory processes to protect the caribou herds from external impacts. The decision making will be politically charged, as the scientific evidence concerning human impacts on caribou is contradictory. In the end, expecting the co-existence of mineral development and caribou in these crucial areas may well be unreasonable, and a choice between caribou and mines might have to be made.

Devolution of Fire-Fighting and Protection of Habitat

The BKCMB has been consistently unsuccessful in convincing governments to devote more resources to protecting caribou habitat through fire-fighting. The board intends to use an extensive study by the Canadian Wildlife Service documenting the impacts of fire on caribou habitat, to support its case that more resources should be devoted to protection. This study appeared in 1988.⁵³ The devolution of fire-fighting from the federal government to the GNWT will perhaps allow for some improvement in this area. However, the devolution agreement stipulates that the GNWT must not substantially alter the fire management system. While there is some room for change, a sizeable increase in resources allocated to fire-fighting may not be possible.

‘ *Caribou Use by Non-Natives*

The fact that the BKCMB is composed of government representatives and aboriginal user representatives is an irritant to some non-native caribou users, especially in the Northwest Territories. This was exemplified by the controversy surrounding the demands of the Northwest Territories Wildlife Federation to increase the resident bag limit from two to five caribou per year.

In February 1987, in an angry letter published in *Caribou News*, the N.W.T. Wildlife Federation called for the direct representation of non-native hunters on the BKCMB. By the April 1987 meeting of the BKCMB, the Federation had stated that this letter no longer represented their position, but they still were intent on receiving an increase in the bag limit. The GNWT Minister of Renewable Resources deferred making a decision until the caribou management plan was in place and the BKCMB had a chance to state its position. The board ended up recommending increasing the bag limit to five caribou since this would constitute a take of only about 300 on the Beverly herd and far less on the Kaminuriak herd.⁵⁴

This situation illustrates the tensions involved in giving aboriginal users priority in both use and management of resources. The BKCMB can be seen as a precursor of co-management institutions resulting from land claims settlements that give aboriginal peoples priority in these areas. Although the BKCMB satisfies some of the political needs of the aboriginal groups for greater input into decision making, it irritates some non-native northerners who feel threatened by the special rights of the aboriginal peoples.

The board successfully resolved the controversy over the resident bag limit by recommending an increase to five caribou, since the total take would not reduce the herd significantly. However, if the non-native population of the Northwest Territories increases, leading to a greater demand for caribou harvesting, this might eventually threaten the herds. The board would then have to make some difficult decisions about their recommendations regarding non-native access to the resource.

Impact of Land Claims Settlements

In the longer term, the BKCMB will be faced with the impact of land claims settlements. The Dene-Métis and the Tungavik Federation of Nunavut have both signed agreements in principle. These agreements will guarantee aboriginal participation on wildlife management boards. The boards are to encompass all species and will cover geographic areas that only partially coincide with the Beverly and Kaminuriak caribou range. Before the final agreements for the Dene-Métis and Inuit land claims are signed, it will be necessary to clarify the relationship of the BKCMB to newly created wildlife management boards.

It has been suggested that the BKCMB may “simply add these new boards to the list of government entities that it advises”.⁵⁵ However, the eventual resolution will be much more complex, since the creation of these boards will necessarily involve a change in the scope of the power of the GNWT and federal governments and their relationship with the two provinces involved. Perhaps under a land-claims settlement the BKCMB would advise the wildlife management boards in the Northwest Territories and through them the minister, since these would be the institutions ultimately responsible for wildlife in that

jurisdiction. Thus, the roles of the GNWT and the federal government would be diminished in the Northwest Territories.

However, final agreements for the **Dene-Métis** and **Inuit** land claims are still uncertain. Although this issue should be kept in mind, it is by no means a pressing issue for the BKCMB at this time.

V Conclusions and Implications

In this section, the main conclusions about the activities of the **BKCMB** are outlined. As well, the implications of the **BKCMB** on **integrated** and **co-ordinated** approaches to environmental planning, assessment, and regulation in the North are discussed.

Integration of Indigenous and State Systems

The most distinctive feature of the **BKCMB** is that it involves indigenous users in the management of the caribou resource. It has been suggested that the indigenous and state systems of wildlife management should be integrated to maximize effectiveness and ensure fairness to the aboriginal users.⁵⁶ Although it is clear that the **BKCMB** accords an important role to the indigenous users, the board should not be perceived as a model of full integration of the two systems. The **BKCMB** has a great deal of informal authority over resource-allocation decisions directly related to the herds themselves. Thus, the board's recommendations concerning quotas or commercialization are almost always implemented by the ministers. In these areas, the traditional values of the indigenous users are integrated into decision making since questions such as commercialization have a **significant** cultural dimension.

However, the indigenous users have less influence in the **areas** of caribou research and the ongoing practices of the government wildlife agencies. Caribou studies are all conducted using scientific methods, and the indigenous users are **expected** to adapt their thinking to the scientific paradigm. Studies of external impacts on caribou which will be reviewed by a larger community of scientists and decision makers must be structured according to the scientific paradigm, since no other paradigm is considered legitimate in the broader sphere of public, bureaucratic decision making. Thus, it may well be impossible to integrate indigenous and **scientific** knowledge in caribou studies that relate to areas such as impacts of mining and protection of **habitat**. However, for caribou studies that are to be used only internally by the board, there is room for integration of the two systems. The problem is that the board has very little funding for independent research projects.

This aspect is related to the fact that the board serves only an advisory function and has little influence over the actual wildlife management practices **carried** out in the **field**. Thus, most research is carried out by the different government **agencies** only with partial consultation of the board. In fact, the government agencies are **independent** of the board, and thus may carry out their activities without reference to the indigenous system.

However, it is possible to say that the **BKCMB** has achieved partial integration of the indigenous and state systems, **particularly** in the areas of allocation decisions concerning the caribou. In the area of caribou studies and the ongoing activities of government wildlife management agencies, it is fair to say that the state system continues to prevail.

Furthermore, at a process level, the board operates largely within a bureaucratic structure that is antithetical to indigenous means of decision making. The structure of the board partially redresses this inequity by virtue of the fact that the indigenous users have numerical superiority on the board. As well, the board attempts to achieve consensus decisions and has slowed down the pace of deliberation in accordance with the wishes of the indigenous users. Most remarkably, a genuine team atmosphere seems to have developed on the board. This allows for dialogue that can overcome many cultural barriers.

It is difficult to say what a truly integrated wildlife management system would look like and what conditions **are** necessary for its development. It is evident that the scientific/bureaucratic culture of the state system is an overbearing and pervasive force. Thus, it seems that the indigenous system can only assert itself if genuine **decision-making** power is accorded the indigenous users. It is only by having this power that the indigenous users will be able to convince government officials and scientists that the indigenous system must be respected. In the case of the **BKCMB**, the capability of indigenous users to outvote the government members prompted the government members to **be** more attuned to, and respectful of, the indigenous **system**.⁵⁷ Much more thinking and research has to be devoted to these questions of cross-cultural communication if effective, **efficient**, and fair resource-management institutions are to emerge in Canada's north.

Conservation of Caribou and Habitat

The **BKCMB** has been successful in influencing the implementation of management decisions concerning the caribou herds themselves. However, it has been far less **successful** in influencing government decisions concerning the protection of habitat. The inability of the board to convince governments to allocate greater resources to **fire-fighting** to protect caribou habitat indicates the reluctance of governments to plan for and implement caribou **conservation** in a truly integrated *manner*. *In the* near future, the decisions arising from the Northern Mineral Policy review concerning the TheIon Game Sanctuary and the mineral development proposals on the caribou calving range will test the ability of the board to influence governments in this area. It will also indicate whether **DIAND** is sincere in its commitment to the conservation of the caribou resource or whether mineral development will be allowed to take place at the expense of caribou.

This problem indicates the need for an integrated approach to wildlife management in the North. While the recommendations of the board concerning the caribou herds themselves are almost always implemented by the ministers, recommendations concerning habitat have largely been ignored. Thus, the board has a *de facto* **decision-making** role in terms of caribou use, but a completely advisory role with regard to habitat.

To increase the capacity of the board to protect the caribou resource, it may be necessary to give the **BKCMB** legislated decision-making power in specific areas. The board could have *de jure* powers over resource-allocation decisions concerning the caribou* herds, and it could also have legally guaranteed representation on any body that makes decisions that impact caribou habitat such as the Regional Environmental Review Committee, the Land Use Advisory Committee, and the N.W.T. Water Board.

From Co-Management to Self-Management

The relatively short history of the **BKCMB** since 1982 indicates that indigenous people and government officials can work together to achieve a greater degree of effective, efficient, and fair natural resource management.

Though the **BKCMB** is a co-management institution, from a legal point of view, it has only an *advisory* function. A self-managed institution would have the authority to make decisions that are legally binding on the parties involved.

Some of the factors that have contributed to the success of the **BKCMB** include:

- source of assured funding;

- effective link to the communities through the indigenous members and frequent community consultations by the board as a whole;
- continuity of board members which contributes to a team atmosphere and effective **dialogue**;
- **pro-active response to a broad range of issues that maximizes input into decision-making processes**; and
- a clear mandate to directly advise ministers.

If the board is to continue to manage the caribou resource effectively, it should be accorded greater authority concerning both the caribou herds and their habitat. If the board is to integrate better the indigenous and state systems of wildlife management, it should **be** given a broader research mandate with appropriate funding. Furthermore, the possibility of the board directing the implementation of wildlife policies and **regulations** at the community level should be explored. Thus, it would be **possible** to integrate indigenous values in areas such as the enforcement of regulations concerning **caribou**.

This level of **full** integration may **become** possible under a land-claim settlement in the Northwest Territories that results in power sharing between governments and native peoples over both wildlife and land management. Such a settlement would require a substantial restructuring of the board itself and, especially, its relations with other organizations.

The BKCMB has shown that the participation of non-native peoples in resource management institutions can, under the right conditions, result in planning and decision making that is increasingly effective, efficient, and fair. The lesson to governments is to be less reluctant to decentralize power and to realize the potentials of indigenous **participation** in resource **management**.

ENDNOTES

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3. P.R. Mulvihill. "Organizational Adaptiveness in Canada's North. A Case Study of the Kativik Environmental Quality Commission." Unpublished Honours thesis. University of Waterloo, Department of Environment and Resource Studies, May 1988, pp. 13-19.
4. Beverly and Kaminuriak Caribou Management Agreement, 1982.
5. The Keewatin Wildlife Federation is the umbrella organization representing local Hunters and Trappers Associations of the Keewatin region.
6. G. Osherenko. *Sharing Power with Native Users: Co-Management Regimes for Arctic Wildlife*. Canadian Arctic Resources Committee Policy Paper No. 5. Ottawa: CARC, 1988. p.17.
7. "The Beverly and Kaminuriak Caribou Management Board A Progress Report". Prepared for Presentation to the Fourth International Reindeer/Caribou Symposium, Whitehorse, 1985. Beverly and Kaminuriak Caribou Management Board Annual Report.1984/85.
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10. Anonymous. "Natives Set Up National Caribou Management Board". *Musk Ox* 28, 1981, pp. 111-112.
11. Ibid. on June 3, 1982.
12. G. Abrahamson, *supra*.
13. Interviews with BKCMB members. Winnipeg August 1987.
14. "The Beverly Kaminuriak Caribou Management Board A Progress Report". *supra*..
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16. "Appendix 2: Resolutions forwarded to governments, 1984-85". Beverly and Kaminuriak Caribou Management Board Annual Report 1984/85.

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18. Saskatoon meeting minutes, April 1987.
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20. Saskatoon meeting minutes. April 1987.
21. "CMB Refuses to Consider Application for Release from Protection Measures", *Caribou News*. Vol. 6, No. 6, April 1987.
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27. P.J. Usher. *The Devolution of Wildlife Management and the Prospects for Wildlife Conservation in the N.W.T.* Canadian Arctic Resources Committee Policy Paper No. 3. Ottawa: CARC, 1986. p. 108.
28. M.M.R. Freeman. "Appeal to Tradition: Different Perspectives on Arctic Wildlife Management" in J. Brosted et. al. (eds.) *Native Power*. Oslo: Universitetsforlaget, . 1985.
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49. Interviews with BKCMB members. Winnipeg. August 1987.
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51. Saskatoon meeting minutes, April 1987, p. 9.
52. Interviews with BKCMB members. Winnipeg. August 1987.
53. Winnipeg field notes. August 1987.
54. Saskatoon meeting minutes. April 1987.
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56. P.J. Usher. *supra*.
57. G. Osherenko. *supra*.